THE UNIVERSITY OF TEXAS AT DALLAS

Faculty Achievements

Books, Articles, Grants

Patents, Exhibitions and

Performances

2005

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INTRODUCTION

The University of Texas at Dallas (UTD) was founded as a scientific research institute in 1962 by a bold group of innovators and entrepreneurs who also founded the company that invented the integrated circuit and changed the world. In 1969 the University joined the University of Texas System. UTD focused its initial energy on recruiting outstanding faculty and establishing first-rate graduate programs. In 1990 the University began admitting lower division students and has ever since had one of the most distinguished, ambitious freshman classes in the State of Texas.

Today, The University of Texas at Dallas stands poised to become one of the nation's premier public research universities. The mission of UTD (as stated in the university's *Strategic Plan*) is to serve "the Metroplex and the State of Texas as a global leader in innovative, high quality science, engineering, and business education and research. The University is committed to (1) producing engaged graduates, prepared for life, work, and leadership in a constantly changing world, (2) advancing excellent educational and research programs in the natural and social sciences, engineering and technology, management, and the liberal, creative, and practical arts, and (3) transforming ideas into actions that directly benefit the personal, economic, social, and cultural lives of the citizens of Texas." Within the context of this broad mission, the University aspires to be:

- A first-rank public research university with focused centers of excellence, prepared to meet the challenges of a rapidly changing, technology-driven global society
- A global force in innovative, transdisciplinary research and education in emerging areas of technology, science, and learning
- A ground-breaking leader in both framing and answering the questions faced by business, policy makers, healthcare, and the public
- A synergistic partner with local industry, government, and cultural organizations as well as local K-12 schools, community colleges, and universities
- One of the most creative, innovative universities in the nation and world.

Faculty Achievements 2005 is a specific record of how individual faculty members of The University of Texas at Dallas make contributions to the broad mission and goals of the university, and includes the following categories: (1) authored books, (2) edited books, (3) articles in refereed journals, (4) articles published in conference proceedings, (5) articles and chapters in edited volumes, (6) invited performances in the arts, (7) invited art exhibitions, (8) juried art exhibitions, (9) patents awarded and (10) grants awarded and continued (principal investigator).

This volume recognizes a total of 294 members of the faculty. In 2005, 14 faculty members authored or co-authored books; 217 published articles in refereed journals; 61 contributed articles and chapters in edited books; and 9 edited or co-edited books. Additionally, 140 faculty members published articles in conference proceedings, and 20 gave creative performances or had exhibitions in the arts. In the areas of sponsored research, 130 faculty members were awarded (new or continuing) grants, and 10 were awarded patents.

SCHOOL OF ARTS AND HUMANITIES

Dennis M. Kratz, Professor, Literary Studies and Dean

Alexander Argyros, Professor, Literary Studies B.A., Columbia University, 1971 M.A., Cornell University, 1974 Ph.D., Cornell University, 1977

Performance: Author

Night Blooming Cereus (Production) Alex Argyros (playwright) The Theatre-Studio, Inc., New York, NY (July 2005)

Bronx Vic. (Staged Reading) Alex Argyros (playwright) Boz and The Bard Production, Inc., New Jersey (November 2005)

Article in Edited Volume

The Wheatly Fly Box Alex Argyros Fresh Fiction for Fresh Water Fishing ed. by Tom Tolnay Birch Book Press, Delhi, NY (2005) 120 pgs.

Charles Bambach, Professor, Historical Studies

B.A., State University of New York at Cortland, 1974 M.A., University of Michigan, 1976 Ph.D., University of Michigan, 1987

Articles in Refereed Journals

Athens and Jerusalem: Rosensweig, Heidegger, and the Search for an Origin Charles Bambach *History and Theory* **44 (2)** (May 2005) 271-288

Karl Jaspers: Navigations in Truth Charles Bambach Nortre Dame Philosophical Reviews (April 2005) online journal

David F. Channell, Professor, Historical Studies

B.S., Case Inst. of Technology, 1967

M.S., Case Western Reserve University, 1969

Ph.D., Case Western Reserve University, 1975

Articles in Conference Proceedings

Scottish Roots of Engineering Science in Japan David F. Channell XXII International Congress of History of Science – Book of Abstracts Beijing, China, Chinese Academy of Sciences (July 2005) 267

Milton A. Cohen, Professor, Literary Studies B.A., Michigan State University, 1968 M.A., Indiana University, 1970 Ph.D., Syracuse University, 1981

Authored Books

Hemingway's Laboratory: the Paris <u>in our time</u> Milton A. Cohen Tuscaloosa, AL: University of Alabama Press (2005) 267 pp.

Articles in Conference Proceedings

August 1914—Modernists Facing the War: Berlin, Paris, and London Milton A. Cohen 7th Annual Conference of Modernist Studies Association, Chicago, (November 2005)

Sean Cotter, Assitant Professor, Literary Studies B.A., Loyola University, 1993 M.A., University of Texas, Dallas, 1998 Ph.D., University of Michigan, 2004

Articles in Refereed Journals: Poetry Translation

Amsterdam: Schiphol" (translation of a Romanian poem by Liliana Ursu) Sean Cotter Visions International 62 (2005) 14

Fred Curchack, Professor Art and Performance

B.A., Queens College, City University of New York, 1970 M.A., Queens College, City University of New York, 1972

Invited Performance

Gauguin's Shadow

Fred Curchack, author, director, videographer, solo performer Providence, Rhode Island: Performance Studies International Conference Brown University/Trinity Repertory Theatre, (March 2005)

Golden Buddha Beach

Fred Curchack, author, director, videographer, performer -- collaboration with Laura Jorgensen Petaluma, California: Cinnabar Theater (February 2005); Sonoma, California: Sonoma Theatre (March 2005); Providence, Rhode Island: Performance International Conference, Brown University/Trinity Repertory Theatre (April 2005); Dallas, Texas: Undermain Theatre (April 2005)

Sexual Myth-Stories Fred Curchack, author, director, performer. Petaluma, California: Cinnabar Theater (June 2005)

The Dot and the Line by Robert Xavier Rodriguez (and other pieces) Fred Curchack, narrator of world premiere Concert with Voices of Change University of Texas at Dallas (May 2005)

Video by Dean Terry Fred Curchack, actor Dallas, Texas: Dallas Theater Center, Dallas Video Festival (June 2005)

Measuring Man

Director and co-writer (with performers Daniel Stein and Robert Smythe) Philadelphia, Pa.: Mum Puppet Theater (November 2005)

David Edmunds, Professor, Historical Studies, Anne Stark and Chester Watson Professor B.A., Millikin University, 1961 M.A., Illinois State University, 1966 Ph.D., University of Oklahoma, 1972

Articles in Edited Volumes

A German Chocolate Cake With White Coconut Icing: Ohio and the Native American World R. David Edmunds *Ohio and the World: Essays Toward A New History of Ohio*, edited by Geoffrey Parker and Richard Sisson Columbus: Ohio State University Press (2005) 22-41

Kathryn C. Evans, Senior Lecturer, Music; Associate Dean for the Arts B.A., University of California, San Diego, 1974
M.A. (Mathematics), University of California, San Diego, 1976
M.A. (Music), University of California, San Diego, 1978

Invited Performance

Jazz, Sweet Jazz, Jazz Concert with UTD Chamber Singers, Special performance for "Governor for a Day Celebration" for Senator Florence Shapiro, Texas State Capital, Austin, TX, (April 10)

Faure's Requiem Soloist with the UTD Chamber Singers and UTD Chorale, Hoyt Neal, director, Richardson, TX: UT-Dallas (April 24, 2005)

Twentienth Century Greats Music for guitar and chamber ensemble, with Enric Madriguera, guitar, Richardson, TX: UT-Dallas (November 11, 2005)

The Sound of Music (Mother Abbess) Rodgers and Hammerstein Richardson, TX : Repertory Company Theatre (December 8 - 17, 2005)

John C. Gooch, Interim Director of Rhetoric B.S., West Texas A&M University, 1994 M.A., Texas Tech University, 1997 Ph.D., Texas Tech University, 2002

Articles in Refereed Journal

The Dynamics and Challenges of Interdisciplinary Collaboration: A Case Study of "Cortical Depth of Bench" in Group Proposal Writing J.C. Gooch *IEEE Transactions of Professional Communication* **48** (2) (2005) 177-190

Gavin R.G. Hambly, Professor, Historical Studies;

Ignacy & Celina Rockover Professor of History

B.A., University of Cambridge, 1958

M.A., University of Cambridge, 1962

Ph.D., University of Cambridge, 1962

Articles in Edited Volumes

Elizabeth Báthory, Hungarian countess and murderer Gavin Hambly *Great Lives from History: The Renaissance & Early Modern Era, 1454-1600*, edited by Christina J. Moose Pasadena, CA: Salem Press (2005) 81-84

Stephen Báthory, Prince of Transylvania (r. 1571-1575) and King of Poland (r 1575-1586)
Gavin Hambly *Great Lives from History: The Renaissance & Early Modern Era, 1454-1600*, edited by Christina J. Moose
Pasadena, CA: Salem Press (2005) 910-912

Ottoman Venetian War (1463-1479) Gavin Hambly *Great Events from History: The Renaissance & Early Modern Era, 1454-1600*, edited by Christina J. Moose Pasadena, CA: Salem Press (2005) 51-53

Castilian War of Succession (1474-1479) Gavin Hambly *Great Events from History: The Renaissance & Early Modern Era*, 1454-1600, edited by Christina J. Moose Pasadena, CA: Salem Press (2005) 97-99

Fragmentation of the Bahmani Sultanate (c. 1490)
Gavin Hambly *Great Events from History: The Renaissance & Early Modern Era*, 1454-1600, edited by Christina J. Moose
Pasadena, CA: Salem Press (2005) 182-184

Battle of Khanua (March 17, 1527) Gavin Hambly *Great Events from History: The Renaissance & Early Modern Era, 1454-1600*, edited by Christina J. Moose Pasadena, CA: Salem Press (2005) 460-462

Merzifonlu Kara Mustafa Paşa, Ottoman Grand Vizier (1676-1683) Gavin R.G. Hambly *Great Lives from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 451-454

Bohdan Khmelnytsky, Ukrainian Cossack Hetman (r. 1648-1657) Gavin R.G. Hambly *Great Lives from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 461-463

Ivan Stepanovich Mazepa, Ukrainian Cossack Hetman (r. 1687-1709) Gavin R.G. Hambly *Great Lives from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 624-626

Shah Johan, Emperor of India (r.1628-1658) Gavin R.G. Hambly *Great Lives s from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 842-845

Sigismund III Vasa, King of Poland (r. 1587-1632) and King of Sweden (r. 1592-1599) Gavin R.G. Hambly *Great Lives from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 853-856

Sophia, Russian Regent (r. 1682-1689) Gavin R.G. Hambly *Great Lives from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 865-867

Vasily Shuisky, Tsar of Russia (r. 1606-1610) Gavin R.G. Hambly *Great Lives from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 943-945

Treaty of Zsitvatorok (November 11, 1606) Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 124-126

Janissary Revolt and Osman II's Assassination (May 19, 1622) Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 261-263

Polish-Russian Wars for the Ukraine (1632-1667) Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 336-338

Waning of the Devshirme System (1638) Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 364-366

British East India Company establishes Fort Saint George (1639-1640) Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 371-373

Ottoman Empire's Brief Recovery (1656-1676) Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 529-531

Portugal cedes Bombay to the English (June 23, 1663) Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 583-585 Ottoman-Muscovite Wars (1677-1681) Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 725-727

Rajput Rebellion (1679-1709) Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 741-743

Holy League Ends Ottoman Rule of the Danube Basin (1684-1699) Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 768-770

Köprülü Reforms of Hüseyin Paşa Gavin R.G. Hambly *Great Events from History: The Seventeenth Centery (1601-1700)* edited by Larissa J. Taylor Pasadena, CA: Salem Press (2005) 841-843

Cynthia Haynes, Associate Professor, Humanities B.A., University of Texas at Arlington, 1974 M.A., University of Texas at Arlington, 1990

Ph.D., University of Texas at Arlington, 1994

Articles in Refereed Journals- Review

Educated Quests and the Seduction of Play Cynthia Haynes Interpretation, Performance, Play, and Seduction: Textual Adventures in Tubmud by Ragnhild Tronstad University of Oslo, 2004, Norsk Medietidsskrift No (March 2005) 271-273

 Adrienne L. McLean, Associate Professor, Film Studies B.A., Southern Methodist University, 1979 M.F.A., Southern Methodist University, 1981 Ph.D., Emory University, 1994

Articles in Edited Volumes

1958: Movies and Allegories of Ambivalence
Adrienne L. McLean
Screen Decades: American Cinema of the 1950s, ed. by Murray
Pomerance
New Brunswick, N.J.: Rutgers University Press (2005) 201-221

Media Effects: Marshall McLuhan, Television Culture, and *The X-Files* Adrienne L. McLean *Comparative Research on Television Drama between China and America*, ed. by Qu Chunjing and Ying Zhu Shanghai: Shanghai Publishing Group (2005) (Chinese-language publication) 171-188

Mary A. Medrick, Senior Lecturer, Music

B.A., University of Texas, Dallas, 1983 M.A., University of Texas, Dallas, 1999

Invited Performances

La Vie Boheme Mary Medrick, stage director UTD Theater (2005)

Jazz Concert Mary Medrick, keyboardist *Paris Nights Ensemble* Dallas Museum of Art (2005)

The Nutcracker Mary Medrick, keyboardist Dallas Opera Orchestra (2005)

Greg Metz, Senior Lecturer, Visual Arts B.F.A., East Texas State University, 1974 M.F.A., Indiana University, 1979

Juried Exhibitions

Wish Exhibition Greg Metz Dallas Center for Contemporary Art, Dallas, Tx. (March 2005) 5x7 Exhibition Greg Metz The Jones Center 'Arthouse' Austin, Tx. (May 2005)

Contextual Greg Metz Coffin Factory, Dallas, Tx. (April 2005)

Scott Barber Benefit Show Greg Metz Barry Whistler Gallery, Dallas, Tx. (June 2005)

Dallas Art Fair Greg Metz MFA Gallery installation, Southside Kennedy Gallery, Dallas, Tx. (October 2005)

Texas Sculpture Symposium Greg Metz Junction Tx. (November 2005)

Conspiracy Show Greg Metz Continental Gallery, Pigeon Stone Projects, Dallas, Tx. (November 2005)

Mihai Nadin, Ashbel Smith Professor, Arts and Technology; Computer Science M.S., Polytechnic Institute of Bucharest, 1960
M.A., University of Bucharest, 1968
Ph.D., University of Bucharest, 1971
Dr. Phil.Habil., Ludwig Maximillian University of Munich, 1979

Authored Books

EXIT Mihai Nadin Providence, RI: Waterfront Books (2005) 353 p.

Articles in Refereed Journals

Where Is Semiotics When You Need It Most? Mihai Nadin SemiotiX. A Global Information Bulletin 4 (July 2005) http://www.semioticon.com/semiotix/semiotix4/newsletterindex4.htm

Articles in Edited Volumes

The Timeliness and Futureness of Programs (German and English) Mihai Nadin *The Futures of the Computer*, edited by By Claus Pias Zurich/Berlin: Diaphanes Verlag (2005) 29-46

Anticipating Extreme Events – the need for faster-than-real-time models Mihai Nadin *Extreme Events in Nature and Society, Frontiers Collection*, edited by S. Albeverio, V. Jentsch and H. Kantz New York/Berlin: Springer Verlag (2005) 21-46

Robert Nelsen, Associate Professor, Literary Studies and Aesthetic Studies B.A., Brigham Young University, 1978 M.A., Brigham Young University, 1979 Ph.D., University of Chicago, 1989

Invited Performances

Convocation, "Why I Wear Black" Robert S. Nelsen Richardson, TX: University of Texas at Dallas (August 2004)

Zsuzsanna Ozsváth, Professor, Literary Studies, Leah and Paul Lewis Chair of Holocaust Studies Director, Holocaust Center Final Diploma, Bela Bartok School of Musical Arts, 1955 Concert Diploma, State Academy of Music, Hamburg, 1961 Ph.D., University of Texas at Austin, 1968

Articles in Refereed Journals: Translations in Catalog

"Without Knocking", an exhibit of paintings by Janet Brooks Gerloff based on the poems of Attila József Translated by Zsuzsanna Ozsváth and Frederick Turner Hungarian Embassy, Berlin, (February 25-March 18 2005) Museum of Fine Arts, Budapest, (April 12-June 12, 2005) Museum Zinkhütter Hof, Aachen, (September 26-Nov 25, 2005) 5-6, 8-10, 12-14, 16, 20, 22, 42

John Pomara, Associate Professor, Painting

B.F.A., East Texas State University, 1978 M.F.A., East Texas State University, 1980

Invited Exhibitions: Solo

Fifteen-Year Survey John Pomara Dallas Center of Contemporary Art, Dallas, Texas. (2005)

Invited Exhibitions

Paint on Metal John Pomara Tucson Museum of Art, Tucson, Arizona. (2005)

Adaption Syndrome: Painting in the Contemporary Image Culture John Pomara Reynolds Gallery and The Workshop Art Center, Richmond Virginia. (2005)

20-20 Year Anniversary John Pomara Barry Whistler Gallery, Dallas, Texas. (2005)

A Friend In Deed John Pomara Barry Whistler Gallery. Dallas, Texas. (2005)

Luck of the Draw John Pomara Diverse Works, Houston, Texas. (2005)

Group Exhibition John Pomara Eugene Binder Gallery, Marfa, Texas. (2005)

2x2 John Pomara Howard Rachofsky House. (2005)

5X7 John Pomara Arthouse Jones Center, Austin, Texas. (2005) *Risk of Urbanisms* John Pomara University of Texas at Dallas, Richardson, Texas. (2005)

Wish

John Pomara Dallas Center for Contemporary Art. Dallas, Texas. (2005)

Guitar Shorty #1 and Other Pieces John Pomara Iris, Dallas, Texas. (2005)

Stephen G. Rabe, Professor, Historical Studies
B.A., Hamilton College, 1970
M.A., University of Connecticut, 1972
Ph.D., University of Connecticut, 1977

Authored Books

U.S. Intervention in British Guiana: A Cold War Story. Stephen G. Rabe. Chapel Hill: University of North Carolina Press (2005.) 240 p.

Timothy Redman, Professor, Literary Studies

B.A., Loyola University (Chicago), 1973 M.A., University of Chicago, 1974 Ph.D., University of Chicago, 1987

Articles in Edited Volumes

[Pound's] Politics Tim Redman *The Ezra Pound Encyclopedia*, edited by Demetres P. Tryphonopoulos and Stephen J. Adams Westport, CT: Greenwood Press (2005) 233-237

A.R. Orage Tim Redman *The Ezra Pound Encyclopedia*, edited by Demetres P. Tryphonopoulos and Stephen J. Adams Westport, CT: Greenwood Press (2005) 208-210

Odon Por Tim Redman *The Ezra Pound Encyclopedia*, edited by Demetres P. Tryphonopoulos and Stephen J. Adams Westport, CT: Greenwood Press (2005) 237-238

Venus Opal Reese, Assistant Professor, Scholar/Performing Artist

B.F.A., Adelphi University, 1994 M.F.A., The Ohio State University, 1997 M.A., Stanford University, 2001 Ph.D., Stanford University, 2002

Invited Performance

Medea Venus Opal Reese (director/adaptor) World Premiere, University of Texas at Dallas (November 2005)

Ready or Not: Lauryn Hill as Hip-Hop's Mammy Venus Opal Reese (artist/scholar) International Colloquium, "Sea Changes: Bodies, practices around the Atlantic", Universita di Padova, Padova, Italy (October 2005)

Redemption: a Collision of history and memory in four breaths Venus Opal Reese (staged-reading) La MaMa Umbria Internatinal, Spoleto, Italy (August 2005)

Living Memory: A Response to August Wilson's Women Venus Opal Reese (director and collaborator) National Performance Artist in Residence Cultural Odyssey, San Francisco, CA (August 2005)

Split Ends Venus Opal Reese (created, directed, solo performance) AfroSolo Theatre San Francisco, CA (August 2005)

West African Dance Venus Opal Reese (dancer) Senegalese African Drumming Ensemble, Perugia, Italy (July 2005)

Ready or Not: Lauryn Hill as Hip-Hop's Mammy Venus Opal Reese (Performative Presentation) Hip-Hop Scholarship panel, Performance Studies International #11 Brown University, RI (April 2005) Split Ends Venus Opal Reese (created, directed, performed solo performance) Black Arts Café Rhode Island (April 2005)

Rhodessa Jones' Wilson's Women Venus Opal Reese (director and collaborator) University of Texas at Dallas (January 2005)

 R. Clay Reynolds, Professor Arts & Humanities Literature and Writing B.A., University of Texas, Austin, 1971 M.A., Trinity University, 1974 Ph.D., University of Tulsa, 1979

Authored Books – Optioned Screenplay

The Vigil Clay Reynolds Steve Schneider Films (2005)

Agatite Clay Reynolds Los Angeles, CA: Benjamin Mouton, Mark Mower, & Associates (1996-2006)

Articles in Refereed Journals: Essay

Saving and Savoring Depression-Era Texas Art: *The Texas Post-Office Murals: Art for the People*, by Philip Parisi: An Essay-Review Clay Reynolds *Texas Books in Review* **24.4** (2004-2005) 6-7, 13

Narrative of the Texan Santa Fé Expedition, by George Wilkins Kendall Ed., Gerald D. Saxon and William R. Taylor: An Essay-Review Clay Reynolds Southwest American Literature **30.2** (2005) 70-73

Loop Group: A Novel by Larry McMurtry: An Essay-Review Clay Reynolds Southwest American Literature **30.2** (2005) 95-98

Slicing Through Mythology: *The Calamity Papers*, by Dale Walker: An Essay-Review Clay Reynolds Texas Books in Review 25.1&2 (2005) 12, 24

Articles in Refereed Journals

Pink Tea Poets and Literary Taste Clay Reynolds *The Desert Candle* **2.7** (2005) 8, 19

Texas Post Office Murals, by Philip Parisi Clay Reynolds *Desert Candle* **12.5** (2005) 12, 26

Articles in Edited Volumes

Beer Bread (Burp!) Clay Reynolds *Vittles Champagne*, edited by Jackie Pelham Conroe: Stone River Press (2005) 42-45

Black-Eyed Peas Clay Reynolds *Vittles Champagne*, edited by Jackie Pelham Conroe: Stone River Press (2005) 111-113

Grits

Clay Reynolds *Vittles Champagne*, edited by Jackie Pelham Conroe: Stone River Press (2005) 118

Chicken-Fried Steak and Cream Gravy Clay Reynolds *Vittles Champagne*, edited by Jackie Pelham Conroe: Stone River Press (2005) 127-130

Never-Fail Turkey Clay Reynolds *Vittles Champagne*, edited by Jackie Pelham Conroe: Stone River Press (2005) 157-159

Never-Fail Fudge With Whiskey Clay Reynolds *Vittles Champagne*, edited by Jackie Pelham Conroe: Stone River Press (2005) 229

Invited Performances

From Fact and Fiction to Film Clay Reynolds Women Writing the West National Convention, (2005)

Approaching the Publishers Clay Reynolds Careers in the Arts Conference, (2005)

New and Old Favorites: A Selection of Readings Clay Reynolds Montgomery College, (2005)

The Fate of the Western Novel Clay Reynolds Western Writers' Forum (2005)

Thomas Riccio, Professor, Theatre

B.A., Cleveland State Univ., 1978 M.F.A., Boston Univ., 1982

Invited Performance: Stage Direction

Fernando Krapp Wrote Me a Letter Tankred Dorst UTD Story Lab (September 2005)

Dada DMA Thomas Riccio (producer, director, performer) Dallas Museum of Art (October-November 2005)

Sprung Thomas Riccio (producer) UTD (March 2005)

Robert Xavier Rodríguez, Professor, Art and Performance, Chair in Arts and Humanities B.Mus., University of Texas at Austin, 1967 M.Mus., University of Texas at Austin, 1969 D.M.A., University of Southern California, 1975

Invited Performances: Conductor

The Song of Songs

Robert Xavier Rodríguez (composer and conductor) Bowdoin, Maine: Bowdoin International Music Festival (July 2005) (also taught master classes in composition at the Festival)

A Gathering of Angels Robert Xavier Rodríguez (composer and conductor) Dallas, Texas: Greater Dallas Youth Orchestra (October 2005)

Invited Performances: Recordings

Tango - Paul Sperry, tenor; members of the San Diego Symphony Robert Xavier Rodríguez (composer and conductor) Albany, NY: Albany Records (March 2005)

Invited Performances: Composer

Monkey See, Monkey Do Robert Xavier Rodríguez (composer) Denver, Colorado: Opera Colorado – multiple touring performances (January 2005)

Monkey See, Monkey Do Robert Xavier Rodríguez (composer) Grand Rapids, Michigan: Second Act Opera Company (March 2005)

Tango Robert Xavier Rodríguez (composer) London, England: Lontano Ensemble (April 2005)

Tango Robert Xavier Rodríguez (composer) Provo, Utah: Utah State University (May 12, 2005)

Tango Robert Xavier Rodríguez (composer) Madison, Wisconsin: University of Wisconsin (October 2005)

Hot Buttered Rumba Robert Xavier Rodríguez (composer) Little Rock, Arkansas: Arkansas Symphony (May 2005)

Il Lamento di Tristano

Robert Xavier Rodríguez (composer) East Lansing, Michigan: Michigan State University (March 2005)

The Dot and the Line – World Premiere Robert Xavier Rodríguez (composer) Dallas, Texas: Voices of Change – UTD (May 2005)

W. Jackson Rushing III, Professor, Aesthetic Studies

B.A., University of Texas at Austin, 1982 M.A., University of Texas at Austin, 1984 Ph.D., University of Texas at Austin, 1989

Articles in Refereed Journals

In Our Language: The Emergence of Edgar Heap of Birds W. Jackson Rushing III *Third Text* **19** (July 2005) 365-384

Articles in Edited Volumes

What the Ground Says: The Art of James Lavadour W. Jackson Rushing III Into the Fray: The Eiteljorg Fellowship in Fine Arts, Vol. 4, edited by James Nottage Seattle: University of Washington Press (2005) 71-81

Monica M. Saba, Senior Lecturer, Dance

A.A., Brookhaven College, 1979 B.F.A., Southern Methodist University, 1982

Invited Performance: Director

Sprung 05 Featuring Lawrence Goldhuber Monica Saba The University of Texas at Dallas (March 2005)

Brookhaven College Dancers' Theatre Spring Dance Concert Monica Saba, Artistic Director Farmers Branch, Texas: Brookhaven College (April 2005)

Invited Performance

Cinderella

Monica Saba Frisco, Texas: Collin County Ballet Theatre (April 2005)

Julius Caesar Superstar Monica Saba New York, New York: Danspace Project at St. Mark's Church (May 2005)

Excerpt from Julius Caesar Superstar/Dancers' Responding to Aids Benefit Performance Monica Saba New York, New York: Bryant Park (August 2005)

Invited Performance: Choreographer

Medea Monica Saba The University of Texas at Dallas (November 2005)

Brookhaven College Dancers' Theatre Fall Dance Concert Monica Saba, Artistic Director and choreographer Addison, Texas: Water Tower Theatre (November 2005)

Rainer Schulte, Professor, Literary Studies, Aesthetic Studies; Katherine R. Cecil Professor for Foreign Languages; Director, Center for Translation Studies M.A., University of Mainz, 1962 Ph.D., University of Michigan, 1965

Authored Books

Ora e paqes, collection of poems translated into Albanian by Gjekë Marinaj Rainer Schulte Marina Publishing, Dallas, TX. (2005)

Edited Books: Journals

Translation Review Rainer Schulte Richardson, TX: The University of Texas at Dallas, vol. **68** and **69**, (Spring 2005) and (Winter 2005)

Articles in Refereed Journals

The Dynamics of Scholarly and Essayistic Writing Rainer Schulte *Literature Interpretation Theory*, **16** (2005) 389-395

Deborah A. Stott, Associate Professor, Art History B.A., Wellesley College, 1964 M.A., Columbia University, 1966 Ph.D., Columbia University, 1975

Articles in Edited Volumes

'I am the same Cornelia I have always been': Reading Cornelia Collonello's Letters to Michelangelo Deborah Stott *Women's Letters Across Europe, 1400-1700: Form and Persuasion.* Edited by Jane Couchman and Ann Crabb Aldershot and Brookfield, VT: Ashgate Publishing (2005) 79-102

Dean Terry, Assistant Professor, Arts and Technology B.A., University of North Texas, 1989 M.F.A., Claremont Graduate University, 1991

Invited Exhibitions

Subdivided (documentary film and internet project) Dean Terry The Dallas Museum of Art, Dallas, TX (August 4, 2005)

Moving Pictures (digital video art show) Dean Terry The Dallas Center for Contemporary Art, Dallas, TX (November-December 2005)

Subrealities (Internet Art Show) Dean Terry, Curator UTD Art Gallery (March 2005)

Theresa M. Towner, Professor of Literary Studies

B.A., University of Kansas, 1980 M.A., University of Exeter, England, 1981 Ph.D., University of Virginia, 1990

Articles in Refereed Journals

Beyond the Old Marshal: "Patriotic Nonsense," The Vernacular Cosmopolitan, and Faulkner's Fiction of the Early 1940s Theresa M. Towner *The Faulkner Journal* **21.1&2** (Fall 2005/Spring 2006) 91-106

Frederick Turner, Professor, Literary Studies; Founders Professor, School of Arts and Humanities B.A., Oxford University, 1965 M.A., Oxford University, 1967 B.Litt., Oxford University, 1967

Articles in Refereed Journals

The Double Citizen: Religious and Secular (target essay, with 7 responses) Frederick Turner Society, **42** (**4**) (May/June 2005) 14-16

Attila József among his Peers: a Personal Assessment Frederick Turner *The Hungarian Quarterly*, **XLVI (178)** (Summer 2005) 59-65

Articles in Refereed Journals: Translations in Catalog

"Without Knocking", an exhibit of paintings by Janet Brooks Gerloff based on the poems of Attila József Translated by Zsuzsanna Ozsváth and Frederick Turner Hungarian Embassy, Berlin, (February 25-March 18 2005) Museum of Fine Arts, Budapest, (April 12-June 12, 2005) Museum Zinkhütter Hof, Aachen, (September 26-Nov 25, 2005) 5-6, 8-10, 12-14, 16, 20, 22, 42

Invited Performance

The Prayers of Dallas Frederick Turner Adapted for stage performance by Frederick Turner and Scott Peck One-man show, University of Texas at Dallas, (November 2, 2005)

The Prayers of Dallas Frederick Turner Adapted for stage performance by Frederick Turner and Scott Peck One-man show, Thanksgiving Square, Dallas, (November 21, 2005)

Marilyn Waligore, Associate Professor, Photography A.B., University of California, Berkeley, 1981 M.F.A., University of Wisconsin-Madison, 1985

Juried Exhibitions

5th Annual Digital Art & Computer Animation Competition Marilyn Waligore Youngstown, Ohio: Beecher Center for Art and Technology at the Butler Institute of Art, Youngstown, Ohio (2005)

Art Gallery, Siggraph 2005 Marilyn Waligore: Los Angeles Convention Center, Los Angeles, CA (included in Travelling Art Show) (2005)

Intimate Floral Marilyn Waligore: Center for Fine Art Photography, Fort Collins, Colorado (2005)

4th Photography Image Biennial Exhibition, East Carolina University, Wellington B. Gray Gallery, School of Art and Design, East Carolina University, Greenville, North Carolina, Juror Maggie Taylor (2005)

Invited Exhibitions

Domestic Sight Marilyn Waligore Lubbock, Texas: Texas Tech University, Folio Gallery, invited solo exhibition (2005)

La Calavera Marilyn Waligore Dallas, Texas: Ice House Cultural Center (2005)

Silent Dialogues Marilyn Waligore Dallas, Texas, Bath House Cultural Center (2005)

Rescued Moments Marilyn Waligore Dallas, Texas: Ice House Cultural Center (2005) Silent Dialogues Marilyn Waligore Plano, Texas, 14th Street Gallery (2005)

Daniel Wickberg, Associate Professor, Historical Studies B.A., Reed College, 1982 M.A., University of California, Los Angeles, 1985 Ph.D., Yale University, 1993

Articles in Refereed Journals

Heterosexual White Male: Some Recent Inversions in American Cultural History Daniel Wickberg *Journal of American History* **92** (2005) 136-157

Grants Awarded and Continued: Principal Investigator

Sympathy as a Keyword in American Culture, 1750-1950 Daniel Wickberg National Endowment for the Humanities, \$40,000, (August 1, 2005 –June 2006)

Betty H. Wiesepape, Senior Lecturer, Literature

B.S., Sam Houston State University, 1962 M.A., University of Texas, Dallas, 1991 Ph.D., University of Texas, Dallas, 1998

Articles in Edited Volumes

Gold Stars and Silver Wings Betty Holland Wiesepape *Writing on the Wind: An Anthology of West Texas Women Writers* edited by Lou Halsell Rodenberter, Laura Payne Butler, and Jacueline Kolosov Lubbock, TX: Texas Tech University Press (2005) 179-189

Setting the Record Straight on 'Mr. TIL Betty Holland Wiesepape *Books--The Dallas Morning News* Book edited by Charles Ealy Dallas: Belo (August 7, 2005) 9G

Invited Performance

Let's Hear It for the Red Shoes Betty Wiesepape Dallas, TX: Dallas Museum of Art, Arts & Letters Live, Texas Bound (April 2005)

Let's Hear It for the Red Shoes Betty Wiesepape Austin, TX: Majestic Theater, Texas Book Festival and Arts & Letters Live (Oct. 2005)

SCHOOL OF BEHAVIORAL AND BRAIN SCIENCES

Bert S. Moore, Professor of Psychology and Dean

Hervé Abdi, Professor, Psychology

M.P., University of Besançon, 1975 D.E.A., University of Clermont, 1976 D.E.A., University of Strasbourg, 1977 Ph.D., University of Aix-en-Provence, 1980

Articles in Refereed Journals

Partially distributed representations of objects and faces in ventral temporal cortex A.J. O'Toole, F. Jiang, H. Abdi and J.V. Haxby *Journal of Cognitive Neuroscience* **17** (**4**) (2005) 580-590

A video database of moving faces and people A.J. O'Toole, J. Harms, S.L. Snow, D.R. Hurst, M.R. Pappas and H. Abdi *IEEE Transactions on Pattern Analysis and Machine Vision* **27** (5) (2005) 1-5

The effect of motion information on infants' recognition of unfamiliar faces

Y. Otsuka, S. Kanazawa, M.K. Yamaguchi, A.J. O'Toole and H. Abdi *Japanese Journal of Psychonomic Science* **24** (1) (2005) 125-126

Semantic, typicality and odor representation: A cross-cultural study C. Chrea, D. Valentin, C. Sulmont-Rossé, D. Nguyen-Hoan and H. Abdi *Chemical Senses* **30** (2005) 37-49

Do trained assessors generalize their knowledge to new stimuli? S. Chollet, D. Valentin and H. Abdi *Food Quality and Preference* **16** (2005) 13-21

Culture and odor categorization: Agreement between cultures depends upon the odors C. Chrea, D. Valentin, C. Sulmont-Rossé, H. Ly Mai, D. Hoang Nguyen and H. Abdi *Food Quality and Preference* **15** (2005) 669-679

Development of a fast panoramic face mosaicing and recognition system F. Yang, M. Paindavoine, H. Abdi and A. Monopoly

Optical Engineering 44 087005 (2005) 1-10

Articles in Conference Proceedings

Panoramic face mosaicing and recognition using multi-cameras F. Yang, M. Paindavoine and H. Abdi Proceedings of the IEEE Computer Society: The International Conference on Signal-Technology and Internet-Based systems (SITIS '05) Yaoundé Cameroon (2005)

Fast panoramic face mosaicing and recognition F. Yang, M. Paindavoine and H. Abdi *Proceedings of the 4th International Symposium on Image and Signal Processing and Analysis (ISPA 2005)* Zagreb, Croatia (September 2005) 197-202

Grants Awarded and Continued: Principal Investigator

Gulf war syndrome subcontract H. Abdi UTSW \$110,000 (01/01/2003–05/01/2005)

Analyzing patterns of incorrect TAKS responses H. Abdi. The O'Donnell Foundation \$10,000 (2004)

Peter F. Assmann, Professor, Psychology

B.A., University of Waterloo, 1976 M.S., University of Alberta, 1979 Ph.D., University of Alberta, 1985

Articles in Refereed Journals

Synthesis fidelity and vowel identification P.F. Assmann and W.F. Katz *Journal of the Acoustical Society of America* **117** (2) (2005) 886-895

Articles in Edited Volume

The perception of speech under adverse conditions: contributions of spectro-temporal peaks, periodicity, and inter-aural timing to perceptual robustness

A.Q. Summerfield, J. Culling and P.F. Assmann *Listening to Speech: An Auditory Perspective*, edited by Steven Greenberg and William Ainsworth Publisher: Lawrence Erlbaum Associates, Inc. (2005)

Articles in Conference Proceedings

Relationship between fundamental and formant frequencies in speech perception

P.F.Assmann and T.M. Nearey

Invited talk for the special session: "Size information in speech and animal calls", *149th Meeting of the Acoustical Society of America*, Vancouver (May 16-20, 2005) *Journal of Acoustical Society of America* **117** (2005) 2374(a)

Grants Awarded and Continued: Principal Investigator

Perception of frequency-shifted speech Peter F Assmann National Science Foundation Grant \$223,418 (08/01/03 to 07/30/06)

Speech recordings database Peter F Assmann Brain and Behavioral Sciences Faculty Research Initiative \$2,000 (09/01/05-08/01/06)

Marco Atzori, Assistant Professor, Neuroscience M.S., University of Trieste, 1993 Ph.D., University of Trieste, 1995

Articles in Refereed Journals

Dopamine prevents muscarinic-induced decrease of glutamate release in the auditory cortex M. Atzori, P.O. Kanold, J.C. Pineda, J. Flores-Hernandez and R.D. Paz *Neuroscience* **134** (4) (2005) 1153-65

Grants Awarded and Continued: Principal Investigator

Acetylcholine and dopamine modulation in auditory cortex Marco Atzori NIH/NIDCD: 5R01DC005986-02 \$295,000 (September 2004 - August 2008)

Young investigator award

Marco Atzori NARSAD \$30,000 (September 2004 - August 2006)

James C. Bartlett, Professor, Psychology B.A., University of Texas at Austin, 1970 Ph.D., Yale University, 1975

Articles in Conference Proceedings

Facial Conjunctions may Block Recollection: ERP Evidence Kalyan Shastri, James C. Bartlett and Hervé Abdi 46th annual meeting of The Psychonomic Society Toronto, (November 10-13, 2005)

Lawrence J. Cauller, Associate Professor, Neuroscience

B.S., University of Utah, 1980M.A., Dalhousie University, 1981Ph.D., Northeastern Ohio Universities College of Medicine, 1988

Grants Awarded and Continued: Principal Investigator

Neuro-µTransponders: Wireless Neural Control for Artificial Arms and Hands Lawrence James Cauller (UTD) and John Randall (Zyvex, Inc.)

DARPA \$8,300,000 overall; \$2,300,000 UTD (2004-2007)

Sandra B. Chapman, Professor, Communication Disorders, Dee Wyly Distinguished Chair in Brain Health Director of the Center for BrainHealth B.A., University of North Texas, 1973 M.A., University of North Texas, 1974 Ph.D., University of Texas at Dallas, 1986

Articles in Refereed Journals

Convergence of Connected Language and SPECT in Variants of Frontotemporal Lobar Degeneration S.B.Chapman, F.J. Bonte, S.B.C. Wong, J.N. Zientz, L.S. Hynan, T.S.Harris, A.R. Gorman, C.A. Roney and A.M. Lipton *Alzheimer's Disease and Associated Disorders Journal* **19(4)** (October/November/December 2005) 202-213 Predictors of Personality Change Due to Traumatic Brain Injury in Children and Adolescents in the First Six Months After Injury Jeffrey E. Max, Harvey S. Levin, Julie Landis, Russell Schachar, Ann Saunders, Linda Ewing-Cobbs, Sandra B. Chapman and Maureen Dennis *Journal of the American Academy of Child and Adolescent Psychiatry*, **44(5)**, (2005) 435-442

Predictors of attention-deficit/hyperactivity disorder within 6 months after pediatric traumatic brain injury J.E. Max, R.J. Schachar, H.S. Levin, L. Ewing-Cobbs, S.B. Chapman, M. Dennis, A. Saunders and J. Landis *Journal of the American Academy of Child and Adolescent Psychiatry* **44** (2005)1032-1040

Predictors of attention-deficit/hyperactivity disorder in children and adolescents 6 to 24 months after traumatic brain injury J.E. Max, R.J. Schachar, H.S. Levin, L. Ewing-Cobbs, S.B. Chapman, M. Dennis, A. Saunders and J. Landis *Journal of Neuropsychiatry and Clinical Neurosciences* **44** (2005) 1041-1049

Mild cognitive impairment. A clinical perspective R. Anand, S.B. Chapman, J. Zientz and K. Toussaint *Perspectives on Gerontology*, **10** (2005)10-14

Articles Conference Proceedings

Deconstructing Discourse: A PET Study of Narrative Production W.A. Postman, A. Braun, J. Solomon, J. Maisog, S.B. Chapman, S. Tuttle, M.R. Christiana and L. Milosky Abstract. *19th Annual CUNY Conference on Human Sentence Processing* (2005)

Self-regulation abilities in children with severe traumatic brain injury: a naturalistic approach

L. G. Cook and S.B. Chapman

Cognitive Neuroscience Society, **12**, 221 (2005) Poster presentation at the *Cognitive Neuroscience Society's Annual Meeting* in New York, NY (2005)

The role of incentive and inhibition in development of efficacious selective learning J.F. Gamino and S.B. Chapman *Cognitive Neuroscience Society*, **12** (2005) 60-61 Poster presentation at the *Cognitive Neuroscience Society's Annual*

Meeting in New York, NY (2005)

Text processing in normal cognitive aging: The ability to shift interpretation of homograph meaning
G. Sparks and S.B. Chapman *Cognitive Neuroscience Society*, **12** (2005)122
Poster presentation at the *Cognitive Neuroscience Society's Annual Meeting* in New York, NY (2005)

Dissolution of discourse gist in early stages of Alzheimer's disease R. Anand, L. Cook and S.B. Chapman *Journal of the International Neuropsychological Society*, **11 (Suppl.1)**, (2005).94 Poster presentation at the *International Neuropsychological Society's Annual Meeting* in St. Louis, MO (2005)

Self-regulation and planning in children with severe traumatic brain injury: a novel naturalistic approach
L.G. Cook and S.B. Chapman
Journal of the International Neuropsychological Society, 11(Suppl. 1)
(2005) 185 Poster presentation at the International Neuropsychological Society's Annual Meeting in St. Louis, MO (2005)

Grants Awarded and Continued: Principal Investigator

Discourse and Brain Plasticity After Pediatric Brain Injury S.B. Chapman Crystal Charity Ball \$550,000 (2002-2007)

Texas BrainHealth Initiative S.B. Chapman Stemmons Foundation \$75,000 (2001-2005)

Brain Mapping During Brain Recovery S.B. Chapman Dee and Charles Wyly Fund \$500,000 (2002-2007)

Cognitive Communication Recovery After Brain Injury S.B. Chapman Derek Bruce Research Fund \$100,000 (2002-2005)

Neurobehavioral Outcome of Head Injury in Children; Dr. Sandra Bond Chapman National Institutes of Health; 1,107,624 (7/1/04 – 6/30/09) Genes, Emotions and Images, Frontotemporal Dementia Dr. Sandra Chapman National Institute of Aging; \$25,000 (4/2002 – 3/2007)

Brain Hope for South Dallas Dr. Sandra Bond Chapman Kappa Kappa Gamma \$15,000

Lattner Healthy Brain Initiatives in Young Adults Dr. Sandra Bond Chapman Forrest C. Lattner Foundation \$1,000,000

Collaborative BrainHealth Project in Kids Dr. Sandra Bond Chapman The Moody Foundation \$12,000

Healthy Brain Initiatives in Young Adults Dr. Sandra Bond Chapman Wacker Family \$400,000

Kidney-Brain Connect Dr. Sandra Bond Chapman KidneyTexas \$60,000

Brain Repair in Children Dr. Sandra Bond Chapman Sanders Family \$60,000

Berman Laboratory for Knowledge, Learning and Memory Dr. Sandra Bond Chapman Berman Research Initiatives Berman Lecture Series Berman Family \$1,000,000

Collaborative Research with UTSW – Brain Plasticity and Brain Rewiring After Treatment Dr. Sandra Bond Chapman Eugene McDermott Foundation \$250,000

Collaborative Research with Shelton School Dr. Sandra Bond Chapman Gerald Stool Family \$200,000

Alzheimer's Disease Research Study Dr. Sandra Bond Chapman Gerald Stool Family \$250,000

Collaborative Research with Shelton School Dr. Sandra Bond Chapman Research for children with ADHD Sparrow Foundation \$250,000

W. Jay Dowling, Professor, Psychology

A.B., Northwestern University, 1963 A.M., Harvard University, 1966 Ph.D., Harvard University, 1968

Articles in Edited Volumes

Entwicklung der musikalischen Kognition: Melodie, Klangfarbe und Harmonie W. Jay Dowling *Musikpsychologie: Band 2.* edited by R. Oerter and T. H. Stoffer Munich: Hogrefe (2005) ch. 57-88

Articles in Conference Proceedings

Effects of Tempo on Rhythmicity of Auditory Attention W. Jay Dowling & Barbara Tillmann *Abstracts of the Psychonomic Society* **10** Toronto (November 2005)

Betty-Gene Edelman, Senior Lecturer, Psychology

B.A., Montclair State College, 1964 M.S., TheUniversity of Texas at Dallas, 1992 Ph.D., TheUniversity of Texas at Dallas, 1999

Article in Conference Proceedings

DISTATIS: The Analysis of Multiple Distance Matrices H. Abdi, D. Valentin, A.J. O'Toole and B. Edelman *Proceedings of the IEEE Computer Society: International Conference on Computer Vision and Pattern Recognition* San Diego, CA (2005) 42-47

Richard M. Golden, Professor, Psychology and Cognitive Science Program Head, Cognitive Science and Applied Cognition and Neuroscience; participating Faculty in Electrical Engineering B.S.E.E., University of California at San Diego, 1982 M.S.E.E., Brown University, 1986 Ph.D., Brown University, 1987

Articles in Conference Proceedings

Quantitative training in psychology is deteriorating: Traditional methodologists, mathematical psychologists, and psychology face a challenge J.T. Townsend, R.M. Golden and T. Wallsten *Psychological Science Agenda* **19** (**9**) (October 2005) *American*

Psychological Association Online

Grants Awarded and Continued: Principal Investigator

Development and evaluation of an automatized comprehension assessment tool R. M. Golden National Science Foundation \$393,793 (10-15-2001-10-15-2005)

Shayla Holub, Assistant Professor, Psychological Sciences

B.S., Millikin University, 2000 M.A., Bowling Green State University, 2003 Ph.D., Bowling Green State University, 2005

Articles in Refereed Publications

Do Preschool Children Understand What it Means to 'Diet', and Do They Do It? S.C. Holub, D.R. Musher-Eizenman, A.V. Persson, L.A. Edwards-Leeper, S.E. Goldstein and A.B. Miller *International Journal of Eating Disorders* **38** (2005) 91-93

Susan Wood Jerger, Ashbel Smith Professor, Human Development and Communication Sciences

> B.A., University of Houston, 1961 M.S., Purdue University, 1963 Ph.D., Baylor College of Medicine, 1986

Articles in Refereed Journals

What's in a name? Typicality and relatedness effects in children S. Jerger and M.Damian *Journal of Experimental Child Psychology*, **92** (2005) 46-75

Articles in Edited Volumes

Hearing Loss in Children S. Jerger, et.al. *Hearing Loss. Determining Eligibility for Social Security Benefits*, Chapter 7 edited by R. Dobie and S. van Hemel The National Academies Press, Washington, D.C., (2005)

Grants Awarded and Continued: Principal Investigator

Auditory Processing in Hearing-Impaired Children S. Jerger National Institutes of Health, NIDCD \$1,783,366 (1997-2008)

William F. Katz, Associate Professor, Communications Disorders B.A., University of California, Santa Cruz, 1977 M.A., California State University, Long Beach, 1982 M.A., Brown University, 1985 Ph.D., Brown University, 1987

Articles in Refereed Journals

Synthesis fidelity and time-varying spectral change in vowels P. Assmann and W. Katz *Journal of the Acoustical Society of America* **117** (2005) 886-895

Grants Awarded and Continued: Principal Investigator

Combined biofeedback approaches for the treatment of apraxia of speech following stroke William F. Katz Excellence in Education Grant (#19-02) \$1,500 (9/1/04- 8/31/05)

Functional magnetic resonance imaging before and after apraxia therapy William F. Katz UTD/BBS Faculty research initiative (#19-02) \$2,000 (9/1/05- 8/31/06)

Michael P. Kilgard, Associate Professor, Neuroscience B.A., University of California, Berkeley, 1993 Ph.D., University of California, San Francisco, 1998

Articles in Refereed Journals

Cortical Map Reorganization Without Cholinergic Modulation M.P. Kilgard *Neuron* **48** (2005) 529-530

Environmental Enrichment Increases Paiared Pulse Depression in Rat Auditory Cortex C.R. Percaccio, N.D. Engineer, A.L. Pruette, P.K. Pandya, R. Moucha, D.L. Rathbun and M.P. Kilgard *Journal of Neurophysiology* **94** (2005) 3590-3600

Asynchronous Inputs Alter Excitability, Sppike Timing and Topography in Primary Auditory Cortex P.K. Pandya, R. Moucha, N.D. Engineer, D.L. Rathbun, J. Vazquez and M.P. Kilgard *Hearing Research* **203** (2005) 10-20

Background Sounds Contribute to Spectrotemporal Plasticity in Primary Auditory CortexR. Moucha, P.K. Pandya, N.D. Engineer, D.L. Rathbun and M.P. Kilgard Experimental Brain Research 162 (2005) 417-427

Grants Awarded and Continued: Principal Investigator

Cortical Plasticity and Processing of Speech Sounds M.P. Kilgard NIDCD, \$146,000 (2003-2006)

Brain Plasticity and Neuro-Rehabilitation M.P. Kilgard James S. McDonnel Foundation \$446,000 (2003-2008)

Stephen G. Lomber, Associate Professor, Neuroscience B.S., University of Rochester, 1988

Ph.D., Boston University School of Medicine, 1994

Articles in Refereed Journals

Impact of repetitive transcranial magnetic stimulation of the parietal cortex on metabolic brain activity: a ¹⁴C-2DG tracing study in the cat A. Valero-Cabré, B.R. Payne, R.J. Rushmore, S.G. Lomber and

A. Pascual-Leone Experimental Brain Research **163**(2005) 1-12

Functional impact of primary visual cortex deactivation on subcortical target structures in the thalamus and midbrain R.J. Rushmore, B.R. Payne and S.G. Lomber *Journal of Comparative Neurology* **288** (2005) 414-426

Grants Awarded and Continued: Principal Investigator

Cerebral Organization Following Cochlear Implant Stephen G. Lomber NIH, National Institute of Deafness and Other Communication Disorders \$224,250 (2003-2006)

Development of fMRI Compatible Reversible Deactivation Stephen G. Lomber NIH, National Institute of Neurological Disorders and Stroke \$411,125 (July 2004-June 2006)

Cerebral Control of Aurally-Mediated Behavior Stephen G. Lomber National Science Foundation \$451,179 (September 2004-August 2008)

Mandy J. Maguire, Assistant Professor, Communication Sciences and Disorders B.A., Pennsylvania State University, 1998 Ph.D., Temple Univ., 2003

Articles in Refereed Journals

Linking brainwaves to the brain: An ERP component primer A. Fonaryova-Key, G. O. Dove and M. J. Maguire *Developmental Neuropsychology* 27 (2005) 183-216

Articles in Edited Volumes Books

Event-related evoked potentials (ERPs) in speech perception D. L. Molfese, A. Fonaryova-Key, M.J. Maguire, G. O. Dove and V. J. Molfese *Handbook of speech perception*, edited by D. Pisoni Oxford: Blackwell Publishers

Articles in Conferences Proceedings

Imageability and grammatical class in noun and verb learning: An ERP study M.J. Maguire and G.O. Dove *Society for Research in Child Development* (April, 2005) Atlanta, GA

Facilitating verb learning: A window onto what makes verb learning difficultK. Hirsh-Pasek, M.J. Maguire and R.M. GolinkoffSociety for Research in Child Development (April, 2005) Atlanta, GA

The neurological correlates of grammatical class and imageability development M.J. Maguire and G.O. Dove *Cognitive Development Society* (October, 2005) San Diego, CA

Candice M. Mills, Assistant Professor, Psychology B.S., University of Florida, 1999 M.Phil., Yale University, 2003 Ph.D., Yale University, 2005

Articles in Refereed Journals

The Development of Cynicism C. M. Mills and F. C. Keil *Psychological Science* **16** (2005) 1-32

Grants Awarded and Continued: Principal Investigator

Faculty Research Initiative Candice M. Mills The University of Texas at Dallas, \$2000 (2005-2006)

Aage Møller, Professor, Human Development and Communication Sciences; Margaret Fonde Jonsson Professor Ph.D., D.Med.Sci., Karolinska Inst., 1975

Authored Books

Intraoperative Neurophysiologic Monitoring, 2nd Edition Aage R. Møller Humana Press (Published October 2005) 356p

Edited Books

Special Issue, Hearing Research 206 Aage R. Møller, Guest Editor Based on presentations at The Third Symposium on Molecular Mechanisms in Central Auditory Function, Plasticity and Disorders (2005) 241p

Articles in Refereed Journals

Are the non-classical pathways involved in autism and PDD? Aage R. Møller, Janet Kern and Bruce Grannemann *Neurological Research* **27** (2005)

Is there a place for microvascular decompression of the cochlearvestibular nerves? Aage R. Møller *Acta Neurochirugica* **147 (9)** (2005 September) 921-923

Transcranial Magnetic Stimulation for Tinnitus: Influence of Tinnitus Duration on Stimulation Parameter Choice and Maximal Tinnitus Suppression Dirk De Ridder, Edwin Verstraeten, Karolien Van der Kelen, Gert De Mulder, Stefan Sunaert, Jan Verlooy, P. Van de Heyning and Aage Møller *Otol Neurotol.* **26(4)** (2005 July) 616-619

Frequency specific hearing improvement in microvascular decompression of the cochlear nerve Dirk De Ridder, Hiroshi Ryu, Gert De Mulder, Paul Van de Heyning, Jan Verlooy and Aage Møller *Acta Neurochir* (Wien). **147(5)** (2005 May) 495-501

Articles in Edited Volumes

Physiology of the ear and the auditory nervous system Aage R. Møller *Textbook of Neurotology*, Second edition, edited by R.K. Jackler and D. Brackmann, Mosby (Elsevier), Philadelphia, (2005) 52-74

Tinnitus Aage R. Møller *Textbook of Neurotology*, Second edition, edited by R.K. Jackler and D. Brackmann Mosby (Elsevier), Philadelphia, (2005) 182-193

Articles in Conference Proceedings

Surgically implanted electrodes of the primary and secondary auditory cortex as a treatment for tinnitus, Dirk De Ridder Gert De Mulder, Gert Edwin Verstraeten, Peggy Lambrechts, Stefan Sunaert, Silvia Kovacs, Marion Smits, Jan Verlooy, Paul Van De Heyning and Aage Møller *VIIIth International Tinnitus Seminar*, Paris (September 2005)

Microvascular compressions and 4 types of tinnitus Hiroshi, Ryu, Jan Verlooy, Vicky Nowé, Paul Parizel, Paul van de Heyning, Margareta Møller, Aage Møller Dirk de Ridder and Gert de Mulder

VIIIth International Tinnitus Seminar, Paris (September 2005)

Somatosensory modulation of the extralemniscal system in tinnitus: a potential target for tinnitus treatment?

Dirk De Ridder, Aage Møller, Gert De Mulder, Stefan Sunaert, Silvia Kovacs and Paul Van De Heyning

VIIIth International Tinnitus Seminar, Paris (September 2005)

Deafferentation Tinnitus: A Pathophysiological Model, Gert De Mulder, Edwin Verstraeten, An Boudewyns, Stefan Sunaert, Silvia Kovacs, Marion Smits, Jan Verlooy, Paul Van De Heyning, Aage Møller and Dirk De Ridder *VIIIth International Tinnitus Seminar*, Paris (September 2005)

Transcranial Magnetic Stimulation In Unilateral Tinnitus And Hyperacusis Edwin Verstraeten, Gert De Mulder, Karolien Van Der Kelen, Paul Van De Heyning, Aage Møller and Dirk De Ridder *VIIIth International Tinnitus Seminar*, Paris (September 2005)

BAEP and the Pathophysiology of Tinnitus in Microvascular Compressions Of The Vestibulocochlear Nerve Dirk De Ridder, Benno Haarman, Karin Heijneman, Paul Van De Heyning, Margareta Møller andAage Møller *VIIIth International Tinnitus Seminar*, Paris (September 2005)

Stress –and noise – induced plasticity of hippocampal place fields in a fixed environment Timothy J. Goble, John R.Frank, George E. Farmer, Aage R. Møller and L. T. Thompson *Abstract Meeting of the Society for Neuroscience*, Washington DC: **32** (November 12, 2005) 34

M. Teresa Nezworski, Associate Professor, Psychology B.A., Washington University, 1977 Ph.D., University of Minnesota, 1983

Articles in Refereed Journals

The Roots of the Rorschach Controversy H.N. Garb, J.M. Wood, S.O. Lilienfeld, and M. T. Nezworski *Clinical Psychology Review* **25** (2005) 97-118

Grants Awarded and Continued: Principal Investigator

Promoting Collaborative Research in the Early Identification of Autistic Spectrum Disorder M. T. Nezworski UTD/BBS Faculty Research Initiative, \$2,000 (2005-06)

Alice J. O'Toole, Professor of Psychology

B.A., Catholic University of America, 1983 M.S., Brown University, 1985 Ph.D., Brown University, 1988

Articles in Refereed Journals

Partially distributed representations of objects and faces in ventral temporal cortex A.J. O'Toole, F. Jiang, H. Abdi and J.V. Haxby *Journal of Cognitive Neuroscience* **17** (**4**) (2005) 580-590

A video database of moving faces and people A.J. O'Toole, J. Harms, S.L. Snow, D.R. Hurst, M.R. Pappas and H. Abdi *IEEE Transactions on Pattern Analysis and Machine Vision* **27** (5) (2005) 1-5

The effect of motion information on infants' recognition of unfamiliar faces

Y. Otsuka, S. Kanazawa, M.K. Yamaguchi, A.J. O'Toole, and H. Abdi Japanese Journal of Psychonomic Science 24 (1) (2005) 125-126

Articles in Conference Proceedings

DISTATIS: The analysis of multiple distance matrices.

H. Abdi, D. Valentin, A.J. O'Toole and B. Edelman Proceedings of the IEEE Computer Society: International Conference on Computer Vision and Pattern Recognition (San Diego, CA, USA) (2005) 42-47

Three-dimensional shape and surface reflectance contributions to opponent-based face identity adaptation. A.J. O'Toole, F. Jiang and V. Blanz *5th Annual Meeting of the Vision Science Society*, Sarasota, FL, (May 2005)

The effect of motion information on infants' recognition of unfamiliar faces

Y. Otsuka, S. Kanazawa, M.K. Yamaguchi, A.J. O'Toole and H. Abdi *5th Annual Meeting of the Vision Science Society*, Sarasota, FL, (May 2005)

DISTATIS: The analysis of multiple distance matrices. H. Abdi, D. Valentin, A.J. O'Toole and B. Edelman *Proceedings of the IEEE Computer Society: International Conference on Computer Vision and Pattern Recognition* (San Diego, CA, USA) (2005) 42-47

Grants Awarded and Continued: Principal Investigator

Evaluating face and person recognition algorithms with Human Benchmarks A.J. O'Toole and H. Abdi Technical Support Working Group \$225,000 (2004-2006)

Analyzing patterns of incorrect TAKS responses H. Abdi The O'Donnell Foundation \$10,000 (2005)

Margaret Tresch Owen, Associate Professor, Psychology

B.A., Oberlin College, 1974 M.A., University of Kansas, 1975 Ph.D., University of Michigan, 1981

Edited Books

Child Care and Child Development: Results from the NICHD Study of Early Child Care and Youth Development Edited by NICHD Early Child Care Research Network New York: Guilford (2005) 474 p.

Articles in Refereed Journals

Pathways to Reading: The Role of Oral Language in the Transition to Reading NICHD Early Child Care Research Network Developmental Psychology **41** (2005) 428-442

Predicting Individual Differences in Attention, Memory, and Planning in First Graders from Experiences at Home, Child Care, and School NICHD Early Child Care Research Network *Developmental Psychology* **41** (2005) 99-114

Duration and Developmental Timing of Poverty and Children's Cognitive and Social Development from Birth through Third Grade NICHD Early Child Care Research Network *Child Development* **76** (2005) 795-810

Early Child Care and Children's Development in the Primary Grades: Follow-up Results from the NICHD Study of Early Child Care *American Educational Research Journal* **43** (2005) 537-570

Articles in Edited Volumes

Caregiver-mother Partnership Behavior and the Quality of Caregiver-child and Mother-child Interactions Margaret Tresch Owen, Anne Ware and Bill Barfoot *Child Care and Child Development: Results from the NICHD Study of Early Child Care and Youth Development*, Edited by NICHD Early Child Care Research Network New York: Guilford (2005)

Grants Awarded and Continued: Principal Investigator

Relationship-Centered Child Care and Children's Development Through the Transition to School Margaret Tresch Owen ChildCareGroup \$27,906 (2004-2005)

Relationship-Centered Child Care and the Development of Children in Poverty Margaret Tresch Owen Salesmanship Club, \$6,891 (2004-2005)

Ross Joseph Roeser, Professor, Communication Disorders Wolf Professor

B.S., Western Illinois University, 1966 M.A., Northern Illinois University, 1967 Ph.D., Florida State University, 1972

Grants Awarded and Continued: Principal Investigator

Comprehensive Hearing, Speech-Language & Psychological Services for Infants, Children and Adults Ross J. Roeser (with Donise Pearson) United Way of Metropolitan Dallas \$ 285,000 (2005-2006)

John W. Santrock, Professor, Psychology

B.A., University of Miami, 1965 M.S., University of Miami, 1967 Ph.D., University of Minnesota, 1973

Authored Books

Life-Span Development (10th Ed.) John W. Santrock New York: McGraw-Hill. (2006) (Published February, 2005)

Educational Psychology (2nd Ed., Updated Revision) John W. Santrock New York: McGraw-Hill (2006) (Published January, 2005)

Your Guide to College Success (4th Ed.) John W. Santrock and Jane Halonen Belmont, CA: Wadsworth (2006) (Published January, 2005)

Psychology: Essentials. John W. Santrock Mexico City: McGraw-Hill Spanish

Anu Sharma, Associate Professor, Audiology B.S., University of Bombay, India, 1988 M.A., Northwestern University, 1989 Ph.D., Northwestern University, 1994

Articles in Refereed Journals

The influence of a sensitive period on central auditory development in children with unilateral and bilateral cochlear implants A. Sharma, M. Dorman and A. Kral *Hearing Research* **203** (2005) 134-143

P1 latency as a biomarker for central auditory development in children with hearing impairment

A. Sharma, K. Martin, P. Roland, P. Sweeny, M. Sweeny, P. Gilley and M. Dorman

Journal of the American Academy of Audiology 16 (2005) 568-577

Developmental changes in refractoriness of the cortical auditory evoked potential

P. Gilley, A. Sharma, M. Dorman and K. Martin *Clinical Neurophysiology* **116** (**3**) (2005) 648-657

Articles in Edited Volumes

The clinical use of P1 latency as a biomarker for assessment of central auditory development in children with hearing impairment A. Sharma and M. Dorman *Audiology Today* **17** (**3**) (2005) 18-19

Grants Awarded and Continued: Principal Investigator

Central Auditory Development In Hearing Impaired Infants Anu Sharma National Institutes of Health, RO1 \$2,131,658 (2004-2009)

Central auditory system plasticity in implanted children Anu Sharma The National Institutes of Health (NIH) R01 \$884,874 (2001-2006)

Melanie J. Spence, Associate Professor, Psychology

B.A., Emory University, 1978 M.A., University of North Carolina, Greensboro, 1980 Ph.D., University of North Carolina, Greensboro, 1984

Articles in Conference Proceedings

Voice familiarity affects 4-month-olds' categorization of infant-directed speech

M. J. Spence, K. J. Atchison, E. Granado, and J. F. Sokolsky *Cognitive Development Society Fourth Biennial Meeting*, San Diego, CA, (October 21-22, 2005)

The effects of stimulus familiarity on infants' facial processing E. W. Touchstone and M. J. Spence *Cognitive Development Society Fourth Biennial Meeting*, San Diego, CA, (October 21-22, 2005)

Infants' categorization of dynamic and static facial expressions E. W. Touchstone and M. J. Spence *Biennual Meeting of the Society for Research in Child Development*, Atlanta, GA, (April 7-10, 2005)

Grants Awarded and Continued: Principal Investigator

Infants' Categorization of Emotional Expressions M. J. Spence Research Initiative Award, School of Brain and Behavioral Sciences, \$1500 (2004-2005)

Infants' Categorization of Vocal and Facial Emotions M. J. Spence Research Initiative Award, School of Brain and Behavioral Sciences, \$1000 (2005-2006)

Robert D. Stillman, Professor, Communication Disorders Associate Dean, School of Human Development B.S., Union College, 1964 Ph.D., Syracuse University, 1969

Articles in Conference Proceedings

Parent/professional perspectives on assessment of children who are deafblind R. Stillman, J.C. Stoltz and S.S. Lalani *American Speech-Language-Hearing Association*, San Diego, CA (2005)

Grants Awarded and Continued: Principal Investigator

Validation of evidence-based assessment strategies to promote achievement in children who are deaf-blind R. Stillman U.S. Department of Education \$190,000 (January 2004-December 2008)

Linda M. Thibodeau, Professor of Communication Disorders

B.A., University of Texas, Austin, 1975 M.A., University of Texas, Austin, 1977 Ph.D., University of Minnesota, 1986

Articles in Refereed Journals

The University of Texas at Dallas/Callier Center for Communication Disorders Doctor of Audiology (AuD) Program R. Roeser, L. Thibodeau and C. Cokely *American Journal of Audiology* **14** (2005) 151-160

Grants Awarded and Continued: Principal Investigator

Comparison of ADRO and WDRC processing in Hearing Aids L. Thibodeau Interton \$15,000 (2005)

Application of Advanced Listening Technology in Adults L. Thibodeau Phonak \$29,000 (2005)

Lucien T. Thompson, Associate Professor, Neuroscience B.A., California State College at San Bernardino, 1981 M.A., California State University at San Bernardino, 1983 Ph.D., University of Virginia, 1988

Articles in Refereed Journals

Impaired delay and trace eyeblink conditioning performance in major depressive disorder T.L. Greer, M.H. Trivedi and L.T. Thompson *Journal of Affective Disorders*, **86** (2005) 235-245

Articles in Conference Proceedings

D-cycloserine enhances location-specificity of hippocampal place cells L.T. Thompson, J. Frank, T. Goble and G.E. Farmer *Society for Neuroscience Abstacts* Washington DC: **32** (November 12, 2005) 33

D-cycloserine increases CA1 neuronal excitability in vitro

T. Seif and L.T. Thompson Society for Neuroscience Abstacts Washington DC: **32** (November 15 2005) 805

Stress- and noise-induced plasticity of hippocampal place-fields in a fixed environment

T.J. Goble, J.R. Frank, G.E. Farmer, A.R. Møller and L.T. Thompson *Society for Neuroscience Abstacts* Washington DC: **32** (November 12, 2005) 34

Insulin enhances excitability of CA1 pyramidal neurons in vitro. C. Williford and L.T. Thompson.

Society for Neuroscience Abstacts Washington DC: **32** (November 15, 2005) 806

Effects of dequalinium on currents underlying the late AHP in CA1 hippocampal neurons H. Bui, A. Patel and L.T. Thompson.

Society for Neuroscience Abstacts Washington DC: **32** (November 15, 2005) 305

BOLD signal changes in the hippocampus and cerebellum during human trace eyeblink conditioning

P. Lea, R. McColl, K.Y. Maxham and L.T. Thompson Society for Neuroscience Abstacts Washington DC: **32** (November 15, 2005) 455

Emily A. Tobey, Professor, Communication Disorders;

Nelle C. Johnston Chair in Early Childhood Communication Disorders
 B.A., New Mexico State University, Las Cruces, 1973
 M.C.D., Louisiana State University Medical Center, 1975
 Ph.D., City University of New York, 1981

Articles in Refereed Journals

Pharmacological enhancement of Aural Habilitation in Adult Cochlear Implant Users
E. Tobey, M. Devous, K. Buckley, G. Overson, T. Harris, W. Ringe and J. Martinez-Verhoff *Ear Hearing* 26(45) (2005) 458-568

Cochlear Implant Soft Failures Consensus Development Conference Statement T. Balkany, A. Hodges, C. Buchman, W. Luxford, C. Pillsbury, P. Roland, J. Shallop, D. Backous, D. Franz, J. Graham, B. Hirsch, M. Luntz, J. Niparko, J. Patrick, S. Payne, F. Telischi, E. Tobey, E. Truy and S. Staller *Otol. Neurotol.*, **26(4)** (2005) 815-818

Cochlear Implant Soft Failures Consensus Development Conference Statement

T. Balkany, A. Hodges, C. Buchman, W. Luxford, C. Pillsbury, P. Roland, J. Shallop, D. Backous, D. Franz, J. Graham, B. Hirsch, M. Luntz, J. Niparko, J. Patrick, S. Payne, S. Staller, F. Telischi, E. Tobey and E. Truy

Cochlear Implants International: An Interdisciplinary Journal, 6 (2005) 105-122

Articles in Conference Proceedings

Literacy improvements in early-implanted children A. Geers, J. Moog and E. Tobey 10th Symposium on Cochlear Implants in Children (2005) 6

Measures of quality of life (QOL) in the Childhood Development after Cochlear Implantation (CDaCI) Study F. Lin, L. Eisenberg, A. Quittner, E. Tobey, Y. Wang, N. Fink, J. Niparko and the CDaCI Investigative Team *10th Symposium on Cochlear Implants in Children* (2005) 34

Parenting Stress and Child Behavior Problems in Deaf and Hearing Toddlers at Baseline, 6 months and 1 year

D. Barker, A. Quittner, L. Malvarez, P. Leibach, I. Cruz, L. Eisenberg, E. Tobey, Y. Wang, N. Fink, J. Niparko and the CDaCI Investigative Team

10th Symposium on Cochlear Implants in Children (2005) 35

Joint attention and Symbolic Play in Deaf and Hearing Toddlers at Baseline and 1 Year After Cochlear Implantation: The Utility of Videotaped Interactions

A. Quittner, L. Malvarez, P. Leibach, D.Barker, I. Cruz, L. Eisenberg, E. Tobey, Y. Wang, N. Fink, J. Niparko and the CDaCI Investigative Team

10th Symposium on Cochlear Implants in Children (2005) 35

Speech Recognition at 1-Year Follow-up in the Childhood Development after Cochlear Implantation (CDaCI) Study

L. Eisenberg, K. Johnson, A. Martinez, C. Cokely, A. Quittner, E. Tobey, Y. Wang, N. Fink, J. Niparko and the CDaCI Investigative Team *10th Symposium on Cochlear Implants in Children* (2005) 39 Early phonemic development in young cochlear implanted children L. Levitan, D. Rekart, B. Davis, P. MacNeilage, J. Moore, A. Czyz-Warner, J. Lane, P. Parker, A. Boyd, L. Sachar, N. Weissner and E. Tobey *10th Symposium on Cochlear Implants in Children* (2005) 41

Baseline language characteristics of children enrolled in the Childhood Development after Cochlear Implantation (CDaCI) Study E. Tobey, D. Rekart, A. Quittner, L. Eisenberg, Y. Wang, N. Fink, J. Niparko and the CDaCI Investigative Team *10th Symposium on Cochlear Implants in Children* (2005) 56

Inter- and intra-reliability measures for transcription of the early speech production of children receiving cochlear implantsJ. Lane, D. Rekart, B. Davis, P. MacNeilage, A. Czyz-Warner, L. Levitan, P. Parker, A. Boyd, L. Sachar and E.Tobey10th Symposium on Cochlear Implants in Children (2005) 59

An investigation of pre-canonical vocalizations in the early speech of cochlear implanted children N. Weissner, D. Rekart, J. Lane, A. Boyd, E. Tobey, B. Davis and P. MacNeilage *10th Symposium on Cochlear Implants in Children* (2005) 71

Grants Awarded and Continued: Principal Investigator

SPECT rCBF in receptive language E. Tobey National Institutes of Health \$458,922 (6/1/2000 - 2/28/2006)

Childhood Developmental After Cochlear Implantation E. Tobey National Institutes of Health \$197,627 (3/1/2001-02/28/2007)

Development of Serial Motor Control E. Tobey National Institutes of Health \$33,900 (12/1/2001 – 11/30/2006)

Pharmacologic activation of dormant cortex in the restoration of speech and language following cochlear implantation in the deaf Emily A. Tobey, Principal Investigator UTD subcontract Dana Clinical Hypotheses Program in Imaging, \$50,000 (5/2001- 4/2006)

A Comparison of Language Intervention Programs E. Tobey

National Institutes of Health \$539,801 (2002-2006)

Hanna K. Ulatowska, Professor, Communication Disorders M.A., Warsaw University, 1955

Ph.D., University of Edinburgh, 1961

Articles in Refereed Journals

Out of darkness cometh light [Światłość w ciemności świeci] H.K. Ulatowska, M. Sadowska and D. Kądzielawa *ProMemoria* 2 (22) (2005) 47-50

Articles in Edited Volumes

Mental Representation of Auschwitz Experiences: The Perspectives of Child and Adult Survivors H.K. Ulatowska, M. Sadowska, D. Kądzielawa and M. Polak *Current International Research on Survivors of Nazi Persecution: Proceedings of the international conference Beyond Camps and Forced Labour, 29-31 January, 2003,* edited by J.-D. Steinert & I. Weber-Newth Hamburg, Germany: Körber-Stiftung (2005)

Articles in Conference Proceedings

Macrostructure Revisited: An examination of Gist Responses in Aphasia H.K. Ulatowska, G.S. Olness and L.J. Williams-Hubbard Poster presented at the annual meeting of the Academy of Aphasia, Amsterdam, Netherlands Proceedings of *Brain and Language*, **35** (October 2005) 109-110

Grants Awarded and Continued: Principal Investigator

Narrative in Group Aphasia Treatment Programs H.K. Ulatowska University of Texas at Dallas, Behavioral and Brain Sciences Faculty Research Initiative Grant \$ 1,500 (2003-2005)

Stroke Stories H.K. Ulatowska University of Texas at Dallas, Behavioral and Brain Sciences Faculty Research Initiative Grant \$1000 (2005)

Effects of Conversational Topics and Ethnicity in Aphasia Group Settings H.K. Ulatowska

UTD, Behavioral and Brain Sciences Faculty Research Initiative Grant \$1000 (2004-2005)

Marion K. Underwood, Professor, Psychology

B.A., Wellesley College, 1986 M.A., Duke University, 1987 Ph.D., Duke University, 1991

Articles in Refereed Journals

Gender Similarities and Differences in Children's Social Behavior: Finding Personality in Contextualized Patterns of Adaptation A.L. Zakriski, J.C. Wright and M.K. Underwood *Journal of Personality and Social Psychology* **88** (2005) 844-855

Observing anger and aggression among preadolescent girls and boys: Ethical dilemmas and practical solutions M.K. Underwood *Ethics and Behavior* **15** (2005) 235-245

Articles in Edited Volumes

Peer Relationships during Middle Childhood: Gender, Emotions, and Aggression.

M.K. Underwood, L. Mayeux and M.Galperin Child Psychology: A Handbook of Contemporary Issues, 2nd Edition, edited by L. Balter and C. Tamis-LeMonda Philadelphia, PA: Psychology Press (2005) 241-261

African American girls and physical aggression: Does stability of childhood aggression predict later negative outcomes? *The development and treatment of girlhood aggression*, edited by Debra Pepler, Kristen Madson and Kristin Levene Mahwah, NJ: Lawrence Erlbaum Associates. (2005) 75-95

Grants Awarded and Continued: Principal Investigator

Social Aggression: Development, Outcomes, and Prevention (A K02 Career Award) Marion K. Underwood National Institutes of Health, \$597,000 (2005 – 2010)

Social Agression: Precursors and Outcomes M. K. Underwood

National Institutes of Mental Health \$1,250,000 (2002-2007)

ERIK JONSSON SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

Robert Helms, Lars Magnus Ericsson Professor, Electrical Engineering; Dean, School of Engineering and Computer Science

Naofal Al-Dhahir, Associate Professor, Electrical Engineering B.S., Kuwait University, 1989 M.S., Stanford University, 1990 Ph.D., Stanford University, 1994

Articles in Refereed Journals

Construction and Analysis of a New Quaternionic Space-Time Code for 4 Transmit Antennas A.R. Calderbank, S. Das, N. Al-Dhahir and S. Diggavi *Communications in Information and Systems Journal* (Special Issue on the 70th birthday of Thomas Kailath) **5** (2005) 97-122

Articles in Edited Volumes

Space-Time Coding for Wireless Communications: Principles and Practice N. Al-Dhahir, A.R. Calderbank and Suhas Diggavi *MIMO Communications Book*, edited by V. Poor, *et al* Cambridge University Press (2005) 140-185

Articles in Conference Proceedings

Training Signal Design for MIMO OFDM Channel Estimation in the Presence of Frequency Offsets H. Minn and N. Al-Dhahir *IEEE Wireless Communications and Networking Conference* New Orleans, LA (March 2005) 1-6

A New Multicarrier Transceivers Based on the Discrete Cosine Transform N. Al-Dhahir and H. Minn *IEEE Wireless Communications and Networking Conference* New Orleans, LA (March 2005) 45-50

Linear Equalizers for Flat Rayleigh MIMO Channels A.Hedayat, A. Nosratinia and N. Al-Dhahir *IEEE International Conference on Acoustics, Speech, and Signal Processing* Philadelphia, PA (March 2005) 445-448 Exploiting Algebraic Structure in Cross-Layer Design S.Das, N. Al-Dhahir and A.R. Calderbank *IEEE Wireless Communications Conference* New York, NY: (June 2005) 1466-1471

A Novel Full-Rate Full-Diversity Orthogonal STBC with Application to WiMAX

A.R. Calderbank, S. Das, N. Al-Dhahir and S.N. Diggavi *IEEE Vehicular Technology Conference* Dallas, TX (September 2005) 1791-1795

Opportunistic Space-Time Block Codes S. Das, N.Al-Dhahir and S. Diggavi *IEEE Vehicular Technology Conference* Dallas, TX (September 2005) 2025-2029

A Reduced-Complexity Hybrid Receiver for the Downlink Multicell CDMA System M. Habibul Islam, M. Saquib and N.Al-Dhahir *IEEE Vehicular Technology Conference* Dallas, TX (September 2005) 1756-1760

PAR-Constrained Training Signal Designs for MIMO OFDM Channel Estimation In the Presence of Frequency Offsets
H. Minn and N. Al-Dhahir *IEEE Vehicular Technology Conference* Dallas, TX (September 2005) 1465-1470

Large-System Analysis of Hybrid Channel Estimation Methods in CDMA Systems

O. Ozdemir, M. Torlak, and N. Al-Dhahir *IEEE Vehicular Technology Conference* Dallas, TX (September 2005) 1988-1992

On Embedded Diversity Codes S. Diggavi, S. Dusad, N.Al-Dhahir, and A.R. Calderbank *Allerton Conference* (September 2005)

MIMO-OFDM Training Signal Design in the Presence of Frequency Offset and Phase Noise H. Minn and N. Al-Dhahir *IEEE ICICS'05 Conference* (December 2005) 263-267

Grants Awarded and Continued: Principal Investigator

Collaborative Research : MSPA-MCS Back to the Future : The Value of Algebraic Structure in Cross-Layer Design A.R. Calderbank (PI from Princeton) and N. Al-Dhahir (PI from UTD) National Science Foundation (NSF), \$131,000 (2005-2007)

Novel OFDM Interference Mitigation Architecture and Algorithms N.Al-Dhahir

Semiconductor Research Corporation (SRC), \$150,000 (2005-2008)

Patents

Finite-Length Equalization over Multi-Input Multi-Output Channels N. Al-Dhahir and A.H.Sayed U.S. Patent no. *6,870,882* (March 2005)

Adaptive Digital Beamformer Coefficient Processor for Satellite Signal Interference Reduction R. Gauss and N.Al-Dhahir U.S. Patent no. *6,885,338* (April 2005)

Training-Based Channel Estimation for Multiple Antennas N. Al-Dhahir, C. Fragouli, and W. Turin U.S. Patent no. *6,959,047* (October 2005)

Poras T. Balsara, Professor, Electrical Engineering

L.E.E., Victoria Jubilee Technical Inst., Bombay, 1980 B.E., University of Bombay, 1983 M.S., Penn State University, 1985 Ph.D., Penn State University, 1989; Licensed Professional Engineer, State of Texas, 1998

Articles in Refereed Journals

SoC with an Integrated DSP and a 2.4GHz RF Transmitter R. B. Staszewski, R. Staszewski, J. Wallberg, T. Jung, J. Koh, C-M Hung, J. Koh, D. Leipold, K. Maggio & P. T. Balsara *IEEE Transactions on VLSI Systems* **13** (**11**) (November 2005) 1253-1265

Direct Frequency Modulation of an ADPLL for Bluetooth/GSM with Injection Pulling Elimination R. Staszewski, D. Leipold & P. T. Balsara *IEEE Transactions on Circuits and Systems-II* **52** (6) (June 2005) 339-343

Event-Driven Simulation and Modeling of an RF Oscillator

R. Staszewski, Chan Fernando & P. T. Balsara IEEE Transactions on Circuits and Systems-I 52 (4) (April 2005) 723-732

Phase-Domain All-Digital Phase-Locked Loop R. Staszewski, & P. T. Balsara *IEEE Transactions on Circuits and Systems-II* **52** (3) (March 2005) 159-163

Articles in Conference Proceedings

FPGA Architecture for Standby Power Management R. Konar, R. Bharadwaj, D. Bhatia and P.T. Balsara *Proceedings of the IEEE Conference on Field Programmable Technology* (*FPT*), Singapore, (Dec. 11-14, 2005) 181-188

All-Digital PLL with Ultra Fast Acquisition R. Staszewski, G. Shriki and P. T. Balsara *Proceedings of the IEEE Asian Solid-State Circuits Conference* **11-7** Hsinchu, Taiwan (Nov. 1-3, 2005) 289-292

Ripple-Precharge TCAM: A Low-Power Solution for Network Search Engines

D. S. Vijayasarathi, M. Nourani, M. J. Akhbarizadeh and P. T. Balsara *Proceedings of the IEEE International Conference on Computer Design (ICCD)* San Jose, CA, (Oct. 2-5, 2005) 243-248

Implementation of High Speed Digital Band-Pass Sigma-Delta Modulator for a Wireless Transmitter V. Parikh, G. Feygin, P. T. Balsara, S. Rezeq, R. Staszewski, S. Vemulapalli and O. Eliezer *Proceedings of the IEEE Dallas/CAS Workshop* Richardson, TX, (October 2005) 207-210

Very High Precision Vernier Delay Line Based Pulse Generator R. Venkatasubramanian and P. T. Balsara *Proceedings of the IEEE Dallas/CAS Workshop* Richardson, TX, (October 2005) 225-228

Yield Aware Digital Design Methodology For Sub-100 Nanometer SOC Designs

C. Sundaram, P. T. Balsara, S. Vemulapalli, P. Vallur and O. Eliezer *Proceedings of the IEEE Dallas/CAS Workshop* Richardson, TX, (October 2005) 237-240

Time-to-Digital Converter for RF Frequency Synthesis in 90nm CMOS

R. B. Staszewski, S. Vemulapalli, P. Vallur, J. Wallberg and P. T. Balsara Proceeding of the 2005 IEEE Radio Frequency Integrated Circuits (RFIC) Symposium Long Beach, CA, (June 2005) 473-476

VHDL Simulation and Modeling of an All-Digital RF Transmitter R. B. Staszewski, R. Staszewski and P. T. Balsara *Proceedings of the 5th International Workshop SoC (IWSoC)*, Banff, Canada, (July 20-24, 2005) 233-238 Best Paper Award.

Design and Implementation of Configurable W-CDMA Rake Receiver Architectures on FPGA M. Chugh, D. Bhatia and P. T. Balsara *Proceedings of the 12th Reconfigurable Architectures Workshop (RAW* 2005)Denver, Colorado, (April 4-5, 2005) 1-8

I/Q Mismatch Compensation in a low-IF Receiver in 90nm CMOS Process I. Elahi, K. Muhammad and P. T. Balsara

Proceeding of the IEEE International Solid-State Circuits Conference San Francisco, CA, (February 6-10, 2005)

Exploiting Temporal Idleness to Reduce Leakage Power in Programmable Architectures

R. Bharadwaj, R. Konar, P. T. Balsara and D. Bhatia Proceedings of the Asia and South Pacific Design Automation Conference (ASP-DAC), Shanghai, China, (Jan. 18-21, 2005) 651-656

Switch Network Design for MTCMOS R. Vilangudipitchai and P. T. Balsara *Proceedings of the 18th IEEE International Conference on VLSI Design* (VLSI '05) Kolkata, India, (January 3-7, 2005) 836-839

The Impact of Inductance on Transients Affecting Gate Oxide Reliability NS Nagaraj, W. Hunter, P. T. Balsara and C. Cantrell *Embedded Tutorial, 18th International Conference on VLSI Design (VLSI* '05) Kolkata, India, (January 3-7, 2005) 709-713

Grants Awarded and Continued: Principal Investigator

Digital Radio Processor P. T. Balsara Texas Instruments, \$96,000 (March 2005 – February 2006)

Digitally Assisted Mixed-Signal Circuts for Wireless Communications

P.T. Balsara Texas Instruments \$68,000 (January 2004 – December 2004)

Farokh B. Bastani, Professor, Computer Science; Excellence in Education Foundation Chair
B. Tech., Indian Inst. of Technology, Bombay, 1977
M.S., University of California, Berkeley, 1978
Ph.D., University of California, Berkeley, 1980

Articles in Refereed Journals

Automated aspect-oriented decomposition of process-control systems for ultra-high dependability assurance D. Wang, F.B. Bastani and I.-L. Yen *IEEE Transactions on Software Engineering* **31** (**9**) (2005) 713-732

A study of the model and algorithms for handling location dependent continuous queries M. Gupta, M. Tu, L. Khan, F.B. Bastani and I.-L. Yen *Knowledge and Information Systems Journal* **8** (4) (2005) 414-437

Articles in Conference Proceedings

Toward QoS analysis of adaptive service-oriented architecture T. Gao, H. Ma, I.-L. Yen, F.B. Bastani and W.-T. Tsai *Proceedings of IEEE Intl. Workshop on Service-Oriented System Engineering* Beijing, China: (October 2005) 219-226

Toward a UML profile to support component-based distributed adaptive systems

T. Gao, K. Cooper, H. Ma, I.-L. Yen and F.B. Bastani Proceedings of International Conference on Software Engineering and Knowledge Engineering Taipei, Taiwan: (July 2005) 217-222

A formal foundation of code pattern based development J. Liu, F.B. Bastani and I.-L. Yen *Proceedings of International Conference on Software Engineering and Knowledge Engineering* Taipei, Taiwan: (July 2005) 274-279

An adaptive multiparty protocol for secure data protection Q. Ma, I.-L. Yen, W. Hao, M. Tu and F.B. Bastani

Proceedings of IEEE International Conference on Parallel and Distributed Systems Fukuoka, Japan: (July 2005) 43-49

Meta code pattern and its refinement J. Liu, F.B. Bastani and I.-L. Yen *Proceedings of 2005 International MultiConference in Computer Science* & *Computer Engineering* Las Vegas, Nevada: (June 2005)

An Approach for designing Highly Adaptable Process-Control Systems D. Wang, F.B. Bastani, I.-L. Yen and R. Paul *Proceedings of the 8th IEEE International Symosium on Object-oriented Real-time Computing Systems* Seattle, WA: (May 2005)

On the optimal placement of secure data objects over internet M. Tu, P. Li, Q. Ma I.-L. Yen and F.B. Bastani *Proceedings of IEEE International Parallel and Distributed Processing Symposium* Denver, Colorado: (April 2005)

A framework to support survivable web services W. Li, J. He, Q. Ma I.-L. Yen, F.B. Bastani and R. Paul *Proceedings of IEEE International Parallel and Distributed Processing Symposium* Denver, Colorado: (April 2005)

A model and methodology for composition QoS analysis of embedded systems

H. Ma, D. Wang, F.B. Bastani, I.-L. Yen and K. Cooper Proceedings of IEEE Real-Time and Embedded Technology and Applications Symposium San Francisco, California: (March 2005) 56-65

Empirical assessment of machine learning based software defect prediction techniques V.U.B. Challagulla, F.B. Bastani, I.-L. Yen and R. Paul, *Proceedings of the 10th IEEE International Workshop on Object-oriented Real-time Dependable Systems* Sedona, Arizona: (February 2005) 263-270

Grants Awarded and Continued: Principal Investigator

Developing Advanced Middleware for Convergence of IT and Telecommunications F.B. Bastani (PI), I.-L. Yen (Co-PI), G. Dattatreya (Co-PI), and L. Khan (Co-PI), Alcatel USA, \$227,500 (Jan. 15, 2004 - Jan. 15, 2005) Developing Advanced Middleware for Convergence of IT and Telecommunications - Part II F.B. Bastani (PI) and I.-L. Yen (Co-PI) Alcatel USA, \$40,500 (Sep. 1, 2004 - Jan. 15, 2005)

Federation of Distributed Presence Servers F.B. Bastani (PI), I.-L. Yen (Co-PI) Alcatel USA, \$59,500 (Dec. 1, 2004 - June 1, 2005)

Sergey Bereg, Associate Professor, Computer Science
B.S., Ural State University, USSR, 1983
M.S., Ural State University, USSR, 1985
Ph.D., Minsk Institute of Mathematics, Belarus, Russia, 1992

Articles in Refereed Journals

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 B.A.Sc., University of British Columbia, Canada, 1993
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 Ph.D. University of British Columbia, Canada, 2001

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Ovidiu Daescu, Associate Professor, Computer Science

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Ding-Zhu Du, Professor, Computer Science

M.S., Chinese Academy of Sciences, 1982 Ph.D., University of California, Santa Barbara, 1985

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András Faragó, Professor, Computer Science

B.Sc., Technical University of Budapest, 1976 M.Sc., Technical University of Budapest, 1979 Ph.D., Technical University of Budapest, 1981 Doctor of the Hungarian Academy of Sciences, 1996 Doct. Habil., Technical University of Budapest, 1997

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New Analytical Results on Ad Hoc Network Connectivity

A. Farago

Third IASTED International Conference on Communications and Computer Networks (CCN 2005) Marina del Rey, CA, (Oct 24-26, 2005) 126-131

Almost Surely Almost Exact Optimization in Random Graphs A. Farago International Conference on Foundations of Computer Science (FCS'05) Las Vegas, Nevada, (June 27-30, 2005) 94-100

Finding Dense Subgraphs Efficiently
A. Farago
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Las Vegas, Nevada, (June 27-30, 2005) 73-79

An Efficient Algorithm for the Optimal Number of Route Transitions in Mobile Ad Hoc Networks N. Meghanathan and A. Farago *IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob'05)* Montreal, Canada, (August 22-24, 2005) 41-48

On the Route Refresh Frequency for On-demand Maximum Battery Life Routing in Ad Hoc Networks N. Meghanathan and A. Farago

IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob'05) Montreal, Canada, (August 22-24, 2005) 291-298

Maximizing Network Lifetime under Fixed Energy Budget in Ad Hoc Networks

N. Meghanathan and A. Farago *IEEE Southeast Conference* Fort Lauderdale, Florida, (April 8-10, 2005) 319-326

Power Sensitive Power Control in Ad Hoc Networks N. Meghanathan and A. Farago *43rd ACM Southeast Conference* Kennesaw, Georgia (March 18-20, 2005) 7C/1-7C6

Video Streaming over Multi-hop Wireless Networks H. Wang, A. Farago and S. Venkatesan *7th IEEE International Symposium on Multimedia (ISM'05)* Irvine, California, (December 12-14, 2005) 624-629

Grants Awarded and Continued: Principal Investigator

Meta-MAC Protocols: A New Dimension to Adaptation in Medium Access Control A. Faragó NSF \$321,760 (2001-2005)

MERIT: A Formal Framework for Systematic Protocol Assessment A. Faragó NSF \$431,086 (2002-2007)

John P. Fonseka, Professor, Electrical Engineering B.S., University of Moratuwa, Sri Lanka, 1980 M.Eng., Memorial University of Newfoundland, 1985 Ph.D., Arizona State University, 1988

Articles in Referred Journal

Soft Decision Differential Phase Detection of Turbo Coded M-ary FSK Signals over Ricean Channels Elmer Cura-Perez and John P. Fonseka *IEEE Transactions on Vehicular Technology*, VT-54 (Nov. 2005) 1722-1728

William R. Frensley, Professor, Electrical Engineering B.S., California Inst. of Technology, 1973 Ph.D., University of Colorado, 1976

Grants Awarded and Continued: Principal Investigator

Predictive Modeling for Intersubband Quantum Devices Grown by MBE William R. Frensley Air Force Office of Scientific Research \$30,072 (2005-2006)

Andrea Fumagalli, Professor, Electrical Engineering Laurea, Politecnico di Torino, 1987 Ph.D., Politecnico di Torino, 1992

Articles in Refereed Journals

Efficient Computation of Multi-Component Failure Stratum Probabilities Z. Pándi, M. Tacca and A. Fumagalli

IEEE Communications Letters **9** (10) (2005) 939-941

Traffic Grooming in Static Wavelength Division Multiplexing Networks I. Cerutti and A. Fumagalli *IEEE Communications Magazine* **43** (1) (2005) 101-107

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Optimized Transmission Power Levels in a Cooperative ARZ Protocol for Microwave Recharged Wireless Sensors P. Monti, M. Tacca, and A. Fumagalli 2005 IEEE International Conference on Communications, 2005, ICC 2005 Seoul, Korea (16-20 May 2005) 3290-3294

A threshold based on-line RWA algorithm with end-to-end reliability guarantees

Z. Pandi, M. Tacca, and A. Fumagalli

Proceedings of IFIP-IEEE oth Working Conference on Optical Network Design and Modeling, ONDM 2005, Milano, Italy (7-9 February 2005) 447-453

Cooperative and noncooperative ARQ protocols for microwave recharged sensor nodes

M. Tacca, P. Monti, and A. Fumagalli *IEEE Proceeedings of the Second European Workshop on Wireless Sensor Networks*, 2005 Istanbul, Turkey (31 January-2 February 2005) 45-56

Multi-terabit hybrid photonic switching and routing

L. S. Tamil and A. Fumagalli

Asia Pacific Optical Conference-2005 Beijing China: (November 4-7, 2005) SPIE and Optical Society of China 6022IN (2005) xx-xx

A Threshold-based Blocking Differentiation Mechanism for all-Optical WDM Networks

S. Pitchumani, I. Cerutti and A. Fumagalli

Proceedings of the 7th International Conference on Transparent Optical Networks (ICTON 2005) Barcelona, Catalonia, Spain (July 2005)

Grants Awarded and Continued: Principal Investigator

Emerging Architectural Frameworks for Optical Networks A. Fumagalli CAPES/UT in kind \$89,954 (2005-2006)

NeTS-NR: Collaborative Research: High Speed Self-Configuring

Networks Based on Cost-Effective Plub-and-Play Optical Nodes A. Fumagalli, F. Maloberti, S. Gregori, M. Tacca and R. Hui NSF \$494,695 + \$220,000 (2004-2008)

Enabling Platforms Grid Computing for Scalable Virtual Organizations A. Fumagalli CNIT (Italian National Consortium of Telecommunications) \$200,000 (2003-2005)

Bruce Gnade, Professor, Electrical Engineering and Chemistry, Distinguished Chair in Microelectronics

B.A., St. Louis University, 1976 Ph.D., Georgia Institute of Technology, 1982

Articles in Refereed Journals

Dopant Penetration through Hf-Silicate M.A. Quevedo-Lopez, M.R. Visokay, J.J. Chambers, M.J. Bevan, A. Lifatou, L. Colombo, M.J. Kim, B.E. Gnade and R.M. Wallace *Journal of Applied Physics* **97** (2005) 043508

High Sensitivity Gas Permeability Measurement System for Thin Plastic Films

A. Ranade, N.A. D'Souza, R.M. Wallace and B.E. Gnade *Revue of Scientific Instruments* **76** (2005) 013902

Atomic transport and chemical stability of nitrogen in ultrathin HfSiON gate dielectrics

C. Driemeier, K.P. Bastos, G.V. Soares, L. Miotti, R.P. Pezzi, I.J.R. Baumvol, P. Punchaipetch, G. Pant, B.E. Gnade and R.M. Wallace *Applied Physics A: Materials Science & Processing* **80** (2005) 1045-1047

Wet Etch Release Process for Silicon Micromachined Structures using Polystyrene Microsheres for Improved Yield F. Mantiziba, I. Gory, G. Skidmore and B. Gnade *Journal of Microelectromechanical Systems* **14** (2005) 598-602

Adsorption Kinetics of p-Nitrobenzenethiol Self-Assembled Monolayers on a Gold Surface A. Jakubowicz, H. Jia, R.M. Wallace and B. Gnade *Langmuir* **21** (2005) 950-955

Layer-by-layer deposition of zirconium oxide films from aqueous

solutions for friction reduction in Si-based microelectromechanical devices Jun-Fu Liu, Corina Nistorica, Igor Gory, George Skidmore, Fadzi Mantiziba and Bruce E Gnade *Thin Solid Films* **292** (2005) 6

Tribological and wear studies of ALD and SILAR coatings for microelectromechanical devices C. Nistorica, J.-F. Liu, I. Gory, G. Skidmore, F.M. Mantiziba, B.E. Gnade and J. Kim *Journal of Vacuum Science and Technology A* 23, (2005) 836

Nanotube Network Transistors from Peptide-Wrapped Single-Walled Carbon Nanotubes M. Panhuis, S. Gowrisanker, D.J. Vanesko, C. Mire, H. Jia, H. Xie, R.H.

Baughman, I.H. Musselman, B.E. Gnade, G.R. Dieckmann and R.K. Draper Small 1 (2005) 820-823

Out-diffusion of La and Al from amorphous LaAlO₃ in direct contact with Si (001) P.Sivasbramani, M.J. Kim, B.E. Gnade, R.M. Wallace, L.F. Edge, D.G. Schlom, H.S. Craft and J.P. Maria *Applied Physics Letters* **86** (2005) 201901

Ultra-scaled hafnium silicon oxynitride gate dielectrics with excellent carrier mobility and reliability M.A. Quevedo-Lopez, S.A. Krishnan, P.D. Kirsch, G. Pant, B.E. Gnade and R.M. Wallace *Applied Physics Letters* **87** (2005) 262902

Articles in Conference Proceedings

HRTEM for Nano-Electronic Materials Research M.J. Kim, R.M. Wallace and B.E. Gnade *Proceedings of the Characterization and Metrology for ULSI Technology, AIP Conference* **788** Richardson, Texas (15-18 March 2005) 2005558

Thermal Stability Studies of Advanced Gate Stack Streuctires on Si(100) P. Sivasubramani, P. Zhao, M.J. Kim, B.E. Gnade, R.M. Wallace, L.F. Edge, D.G. Schlom, G.N. Parsons and V. Misra *Proceedings of the Characterization and Metrology for ULSI Technology, AIP Conference* **788** Richardson, Texas (15-18 March 2005) 156

Thermally Stable Mo_xSi_yN_z as a Metal gate Electrode for Advanced

CMOS Devices

P. Zhao, J. Kim, M.J. Kim, B.E. Gnade and R.M. Wallace Proceedings of the Characterization and Metrology for ULSI Technology, AIP Conference **788** Richardson, Texas (15-18 March 2005) 152

 $Mo_XSi_YN_Z$ Metal Gate Electrode with Tunable Work Function for Advanced CMOS

P. Zhao, J. Kim, M.J. Kim, B.E. Gnade and R.M. Wallace *Extended Abstracts of the International Conference on Solid State Devices and Materials*, Kobe, Japan, **A-8-1**, (2005) 848-849

High Performance Gate First HfSiON Dielectric Satisfying 45nm Node Requirements

M.A. Quevedo-Lopez, S.A. Krishnan, P.D. Kirsch, H.J. Li, J.H. Sim, C. Huffman, J.J. Peterson, B.H. Lee, G. Pant, B. E. Gnade, M. J. Kim, R. M. Wallace, D. Guo, H. Bu and T.P. Ma 2005 IEEE International Electron Devices Meeting (IEDM) Technical Digest, Washington, DC (November 2005) 437

Grants Awarded and Continued: Principal Investigator

Assemblers For Nanotechnology Applications And Manufacturing: Enabling The Nanotechnology Era Bruce Gnade and Robert Wallace NIST (subcontract from Zyvex) \$275,000 (10/2003 -12/2006)

Study of Emitter Degradation Bruce Gnade Air Force SBIR (subcontract from Stellar Micro Devices) \$27,000 (11/2003-01/2005)

Very high information content displays for ultrahigh definition systems B.E.Gnade and R.M.Wallace US Army Soldier Systems Center \$356,511 (8/2004 – 9/2005)

Low temperature dielectrics for polycrystalline silicon thin film transistors on plastic substrates B.E.Gnade and R.M.Wallace US Army Soldier Systems Center \$111,664 (8/2004 – 9/2005)

Active devices on fiber: Building Blocks for computational fabric B.E.Gnade and R.M.Wallace US Army Soldier Systems Center \$152,235 (8/2004 – 9/2005)

Integration of Molecular Electronics with Scaled Silicon CMOS

B.E. Gnade Texas Advanced Technology Program \$102,118 (11/2003 – 08/2004)

Improved Contacts to Thermoelectric Materials B.E. Gnade Marlow Industries \$26,275 (02/2004 - 02/2005)

Role of Microstructure on Metal Gates B.E.Gnade, R.M.Wallace, and M.J. Kim Semiconductor Research Corporation \$105,000 (07/2004 – 06/2007)

Materials and Supplies for SRC Research B.E.Gnade and R.M.Wallace Semiconductor Research Corporation \$40,000 (10/2004 – 02/2005)

Fabrication and Testing of Nanobench B.E.Gnade DARPA (subcontract from UHV Technologies) \$24,899 (07/2004-07/2005)

Improved Contacts to Thermoelectric Materials B.E. Gnade Marlow Industries \$87,971 (2005-2006)

Woven Displays B.E. Gnade Raytheon \$100,000 (2005-2006)

Field Ionization Arrays based Micro Gas Analyzer B.E. Gnade, R.M. Wallace and Tayo Akinwande DARPA (subcontract from MIT) \$748,000 (UTD portion) (2005-2009)

Energy Conversion in Carbon Nanotubes B. Gnade Nanostar \$99,607 (2005)

Improved Barrier Properties in Flexible, Plastic Substrates B. Gnade Army Research Laboratory\$100,000 (2 option years for \$100,000/year) (2005-2006)

High Power Vacuum GaN B. Gnade Air Force STTR (subcontract to Stellar Micro Devices) \$125,003 (2005-2007) Miniature Broadband Laser Magnetometer for ASW B. Gnade Office of Naval Research (subcontract to Polatomic) \$30,959 (2005-2006)

Limits of Organic TFTs for RFID applications B. Gnade Texas Instruments \$24,790 (2005-2006)

Multi-planar Emissive Flat Panel Displays Duncan MacFarlane and B. Gnade DARPA SBIR (subcontract to Stellar Micro Devices) \$24,996 (2005-2006)

Determination of Assembly Tolerances for Scaled MEMS/NEMS Devices Bruce Gnade and Moon Kim NIST (subcontract from Zyvex) \$75,134 (2005-2006)

Method of Removing Contaminants on a Substrate M.A. Quevedo Lopez, R.M. Wallace, M. El Bouanani and B.E. Gnade U.S. Patent No. *6,933,235* (August 23, 2005)

Matthew Goeckner, Associate Professor, Electrical Engineering B.S., Southern Illinois University, Carbondale, 1982 B.S., Southern Illinois University, Carbondale, 1983 M.S. University of California, Los Angeles, 1984 Ph.D., University of Iowa, 1990

Articles in Refereed Journals

Spectroscopic study of gas and surface phase chemistries of fluorocarbon plasma in an inductively coupled modified gaseous electronics conference (mGEC) reactor Baosuo Zhou, E.A. Joseph, L.J. Overzet, and M.J. Goeckner

Journal of Vacuum Science and Technology A 23 (2005) 1657-1667

Electron confinement on magnetic field lines M.J. Goeckner, L.J. Overzet, G. Earle and J. Maynard *IEEE Transactions on Plasma Science* **33** (2 I) (2005) 436-437

Gopal Gupta, Professor, Computer Science

B.S., Indian Inst. Of Technology, Kanput, India, 1985 M.S., University of North Carolina, Chapel Hill, 1987 Ph.D., University of North Carolina, Chapel Hill, 1992

Articles in Refereed Journals

Provably Correct Code Generation: A Case Study Qian Wang and Gopal Gupta *Electronic Notes in Theoretical Computer Science* **118** (1) (February 2005) 87-109

Articles in Edited Volumes: Conference Proceedings

Proceedings of the 21st International Conference on Logic Programming M. Gabbrielli and G. Gupta Springer Verlag Lecture Notes in Computer Science **3668** (2005) 400 p

Articles in Conference Proceedings

A Universal Service-Semantics Description Language A. Bansal, S. Kona, L. Simon, A. Mallya, G. Gupta and T. Hite *Proceedings of the European Conference on Web Services* (2005) 15p

A_{I:} A Real Time Action Description Language L. Simon, A. Mallya and G. Gupta *Proceedings of Logic-based Program Synthesis and Transformation Lecture Notes in Computer Science Srpinger Verlag* (2005) 44-60

Towards Intelligent Services: A Case Study in Chemical Emergency Response

A. Bansal, K. Patel, G. Gupta, B. Raghavachari, J. Staves and D. Harris *International Conference on Web Services, IEEE Press* (June 2005) 751-758

Description Language for Service Semantics L. Simon, A. Mallya, A. Bansal, G. Gupta and T. Hite *International Conference on Web Services, IEEE Press* (June 2005) 823-824

Towards a Universal Services Description Language L. Simon, A. Mallya, A. Bansal, G. Gupta and T. Hite *Interntional Conference on Next Generation Web Services Practices IEEE Press* (August 2005) 6 pages Optimization with Mode-Directed Preferences H-F Guo, B. Jayaraman, G. Gupta and M. Liu *ACM Conference on Principles and Practice of Declarative Programming* ACM Press (2005) 242-251

A VoiceXML-based Spoken Scripting Language for Voice-based Web Navigation M. Nichols, Q. Wang and G. Gupta *Human Computer Interaction Conference* Lawrence Erlbaum and Associates (July 2005) 8 pages

DAWN: Dynamic Aural Web Navigation G. Gupta, S. Sunder Raman and M. Nichols *Human Computer Interaction Conference* Lawrence Erlbaum and Associates (July 2005) 8 pages

Dynamic Aural Browsing of MathML Documents with Voice XML H. Reddy, G. Gupta and A. Karshmer *Human Computer Interaction Conference* Lawrence Erlbaum and Associates (July 2005) 8 pages

Rapidly Prototyping Implementation Infrastructure of Domain Specific Languages: A Semantics-based Approach Qian Wang and G. Gupta *ACM Symposium on Applied Computing* ACM Press (2005) 1419-1426

Towards Provably Correct Code Generation via Horn Logical Continuation Semantics Qian Wang, G. Gupta and M. Leuschel *Proceedings of the International Conference on Practical Aspects of Declarative Languages* Springer Verlag (2005) 98-112

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Research Resources for Parallel Computing: Networks, Computational Geometry and Logic Programming Gopal Gupta (PI), R. Prakash, O. Daescu National Science Foundation \$63,000 (2001-2005)

Horn Logic Denotations and Their Applications Gopal Gupta NSF \$27,000 (9/1999-8/2005)

Universal Services Description Language

G. Gupta Metallect \$40,000 (9/2005-3/2006)

Buffer Overflow Attack-proofing G. Gupta AT&T \$33,000 (12/2004-6/2006)

John H. L. Hansen, Professor, Electrical Engineering; Head, Electrical Engineering Department, Distinguished Chair in Telecommunications Engineering Professor, Speech and Hearing (Brain Behavioral Sciences) B.S., Rutgers University, 1982 M.S., Georgia Institute of Technology; 1983 Ph.D., Georgia Institute of Technology, 1988

Articles in Refereed Journals

SpeechFind: Advances in Spoken Document Retrieval for a National Gallery of the Spoken Word J.H.L. Hansen, R. Huang, B. Zhou, M. Seadle, J.R. Deller, Jr., A.R. Gurijala, P. Angkititrakul *IEEE Trans. Speech & Audio Proc., Special Issue on Data Mining*, **13** (5), (September 2005) 712 - 730

Efficient Audio Stream Segmentation Via the T2 Statistic Based Bayesian Information Criterion B. Zhou, J.H.L. Hansen *IEEE Transactions Speech & Audio Proc.* **13** (**4**) (July 2005) 467-474

Rapid Discriminative Acoustic Modeling Based on Eigenspace Mapping for Fast Speaker Adaptation
B. Zhou, J.H.L. Hansen *IEEE Transactions Speech & Audio Proc.*13 (4) (July 2005) 554-564

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A Distributed/Integrated Approach to Dialect/Accent Classification S. Gray and J.H.L. Hansen *IEEE ASRU: Automatic Speech Recognition Workshop*, Cancun, Mexico, (December 2005

Advances in Word based Dialect/Accent Classification R. Huang and J.H.L. Hansen *ISCA INTERSPEECH-2005/Eurospeech-2005*, Lisbon, Portugal, (September 2005) 2241-2244

In-Set/Out-of-Set Speaker Identification Based on Discriminative Speech Frame Selection X. Zhang and J.H.L. Hansen *ISCA INTERSPEECH-2005/Eurospeech-2005*, pp., Lisbon, Portugal, (September 2005) 2037-2040

Improved 'TEO' Feature-based Automatic Stress Detection Using Physiological and Acoustic Speech Sensors E.Ruzanski, J.H.L. Hansen, D. Finan and J. Meyerhoff *ISCA INTERSPEECH-2005/Eurospeech-2005*, Lisbon, Portugal, (September 2005) 2653-2656

Speaker Verification using Gaussian Mixture Models within Changing Real Car Environments X. Zhang, J.H.L. Hansen, P. Angkititrakul1 and K. Takeda *ISCA INTERSPEECH-2005/Eurospeech-2005*, Lisbon, Portugal, (September 2005) 2021-2024

Collaborative Voice Activity Detection for Hearing Aids L. B. Grisoni and J.H.L. Hansen *ISCA INTERSPEECH-2005/Eurospeech-2005*, Lisbon, Portugal, (September 2005) 2353-2356

Statistical Class-Based MFCC Enhancement of Filtered and Band-Limited Speech for Robust ASR N. Morales, D.T. Toledano, J.H.L. Hansen, José Colás and Javier Garrido *ISCA INTERSPEECH-2005/Eurospeech-2005*, Lisbon, Portugal, (September 2005) 2629-2632

Effects of Phoneme Characteristics on TEO Feature-based Automatic Stress Detection in Speech E.Ruzanski, J.H.L. Hansen, J. Meyerhoff, G. Saviolakis and M. Koenig *IEEE ICASSP-2005: International Conference on Acoustics, Speech, and Signal Processing* **1**, Philadelphia, PA, (March 2005) 357-360

MFCC Compensation for Improved Recognition of Filtered and Band-Limited Speech N. Morales, J.H.L. Hansen and D.T. Toledano *IEEE ICASSP-2005: International Conference on Acoustics, Speech, and Signal Processing* **1**, Philadelphia, PA, (March 2005) 521-524

Dialect/Accent Classification via Boosted Word Modeling R. Huang and J.H.L. Hansen

IEEE ICASSP-2005: Inter. Conf. on Acoustics, Speech, and Signal Processing **1**, Philadelphia, PA, (March 2005) 585-588

Towards an Intelligient Acoustic Front-End for Automatic Speech Recognition: Built-In Speaker Normalization (BISN) U. Yapanel and J.H.L. Hansen *IEEE ICASSP-2005: Inter. Conf. on Acoustics, Speech, and Signal Processing* **1**, Philadelphia, PA, (March 2005) 949-952

General Issues in Environmental Noise Tracking for Robust In-Vehicle Speech Applications: Supervised vs. Unsupervised Acoustic Noise Analysis

M. Akbacak and J.H.L. Hansen DSP for Vehicular and Mobile Systems, Sesimbra, Portugal, (September 3, 2005) M2-2

Speaker Source Localization using Audi-Visual Data and Arry Processing based Speech Enhancement for In-Vehicle Environments X.X. Zhang, J.H.L. Hansen, K. Takeda, T. Maeno and K. Arehart *DSP for Vehicular and Mobile Systems*, Sesimbra, Portugal, (September 3, 2005) M2-3

Grants Awarded and Continued: Principal Investigator

Advances in Dialect Modeling and Classification J. Hansen U.S. Air Force \$100,000 (October 2005)

Modeling Driver Behavior - In-Vehicle Speech, Video, and Driver Biometrics: An International Collaboration (Prime NEDO sponsor from Japan [K. Takeda]) PI (USA): J. Hansen NEDO Foundation \$220,000 (2005-2008)

CSLR Corpus Center Membership - CU-Move In-Vehicle Speech Corpus J. Hansen Siemens \$26,000 (2005)

Strategies for Detection of Out-of-Set Speakers for Speaker Recognition J. Hansen

U.S. Air Force \$120,000 (2004-2005)

Voice Stress Analysis to Predict Human Performance Degradation J. Hansen

U.S. Army DoD Medical Research \$75,000 (June 2004-June2005)

Rich Transcription in Military and Multi-Lingual Speech J. Hansen SPAWAR Systems / U.S. Navy \$27,826 (February 2004-February 2005)

 Sanda Harabagiu, Associate Professor, Computer Engineering Computer Engineering Jonsson School Research Initiation Chair Dipl. Engr., Polytechnic Inst. Of Bucharest, Romania, 1983 Doctorate, University of Rome, Tor Vergata, Italy, 1994 Ph.D., University of Southern California, Los Angeles, 1997

Edited Book

Question Answering Sanda Harabagiu and Dan Moldovan *The Oxford Handbook of Computational Linguistics, e*dited By Rusian Mitkoiv New York: Oxford Press (2005) 560-582

Articles in Conference Proceedings

Topic Themes for Multi-document Summarization Harabagiu and F. Lacatusu *Proceedings of 28th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2005)* 2005 Salvador, Brazil (August 2005) 202-209

Shallow Semantics for Relation Extraction S. Harabagiu, C. Bejan and P. Morarescu *Proceedings of 19th International Joint Conferences on Artificial Intelligence IJCAI 2005* Edinburgh, Scotland (August 2005) 1061-1067

Temporal Context Representation and Reasoning D. Moldovan, C. Clark and S. Harabagiu *Proceedings of 19th International Joint Conferences on Artificial Intelligence IJCAI* 2005 Edinburgh, Scotland (August 2005) 1099-1105

Experiments with Interactive Question-Answering S. Harabagiu, A. Hickl, J. Lehmann and D. Moldovan *Proceedings of the 43rd Annual Meeting of the Association for Computational Linguistics (ACL'05) 2005* Ann Arbor, MI (July 2005) 205-214

Grants Awarded and Continued: Principal Investigator

CARRER: Reference Resolution for Natural Language Processing S. Harabagiu NSF \$300,000 (2000-2005)

Computational Implicatures for Advanced Question Answering S. Harabagiu ARDA AQUAINT \$886,117 (2002-2005)

Answering Questions Using INference and Advanced Semantics, Sanda Harabagiu AQUINAS \$3,026,438.62 (September 2004-March 2007)

Wenchuang (Walter) Hu, Assistant Professor, Electrical Engineering B.S., Peking University, 1999

> M.S.E.E., University of Notre Dame, 2001 Ph.D., University of Notre Dame, 2004

Articles in Refereed Journals

Effects of nanoimprinted patterns in tissue-culture polystyrene on cell behavior

W. Hu, E. Yim, R. M. Reano, K. W. Leong and S. W. Pang Journal of Vacuum Science Technology B. 23(6), (2005) 2984-2989

Electron beam nanolithography for the patterning of DNA rafts and molecules

W. Hu, K. Sarveswaran, M. Lieberman and G. H. Bernstein *IEEE Transaction on Nanotechnology*, **4** (**3**) (May 2005) 312-316

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W. Hu, R. M. Reano and S. W. Pang

49th International conference on Electron, Ion and Photon Beam Technology and Nanofabrication (EIPBN) Orlando, Fl: (May 2005) 717-722

Thermal response of nanoimprinted polymer films using CD-SAXS R. L. Jones, C. L. Soles, E. K. Lin, W. Hu, R. M. Reano, S. W. Pang and D. M. Casa *SPIE Photonics West* San Jose, CA (January 22-27, 2005)

Stability of nanoimprinted polymer films

Ron L. Jones, Chris L. Soles, Edwin K. Lin, Walter Hu, Ron M. Reano,
Stella W. Pang and D. M. Casa
49th International conference on Electron, Ion and Photon Beam
Technology and Nanofabrication (EIPBN) Orlando, Fl: (May 2005)

Pattern fidelity in nanoimprinted films using CD-SAXS
R. L. Jones, C. L. Soles, E. K. Lin, W. Hu, R. M. Reano, S. W. Pang,
S. J. Weigand, D. T. Keane and J. P. Quintana *Conference on Emerging Lithographic Technologies* IX, San Jose, CA: (March 01-03, 2005) 415-422

Louis R. Hunt, Professor, Electrical Engineering

Director, Center for Systems, Communications, and Signal Processing B.S., Baylor University, 1964 Ph.D., Rice University, 1970

Articles in Refereed Journals

Active Optical Lattice Filters L. R. Hunt, V. Govindan, I. Panahi, J. Tong, G. Kannan, D. L. MacFarlane and G. Evans *EURASIP Journal on Applied Signal Processing*, **10** (2005) 1452-1461

Articles in Conference Proceedings

Lattice Filter with Adjustable Gains and its Application in Optical Signal Processing

I. M. S. Panahi, G. Kannan, L. R. Hunt, D. L. MacFarlane and J. Tong *IEEE Statistical Signal Processing Conference*, Bordeaux, France, (July 17-20, 2005) 321-326

Analysis and Synthesis of Optical Lattice Filters with Adjustable Gains I. M. S. Panahi, G. Kannan, L. R. Hunt, D. L. MacFarlane, J. Tong and N. Spears

IEEE LEOS Summer Topical, San Diego, CA, (July 25-27, 2005) 29-30

Active Optical Lattice filters as Programmable ODE Solvers L. R. Hunt, N. Spears, T. Constantinescu, G. Kannan, D. L. MacFarlane, I. M. S. Panahi, V. Ramakrishna and J. Tong *IEEE LEOS Summer Topical*, San Diego, CA, (July 25-27, 2005) 33-34

Active Optical Lattice Filters

D. L. MacFarlane, J. Tong, L. R. Hunt, I. M. S. Panahi, T. Constantinescu, V. Ramakrishna, G. A. Evans and M. Christensen

Jason P. Jue, Associate Professor, Computer Science B.S., University of California, Berkeley, 1990 M.S. University of California, Los Angeles, 1991 Ph.D., University of California, Davis, 1999

Authored Books

Optical Burst Switched Networks J. P. Jue and V. M. Vokkarane New York: Springer (2005) 147 p.

Articles in Refereed Journals

Dual-Homing Protection in IP-over-WDM Networks J. Wang, V. Vokkarane, R. Jothi, X. Qi, B. Raghavachari and J. P. Jue *IEEE/OSA Journal of Lightwave Technology*, **23**(10) (October 2005) 3111-3124

Segmentation-Based Non-Preemptive Channel Scheduling Algorithms for Optical Burst-Switched Networks V. Vokkarane and J. P. Jue *IEEE/OSA Journal of Lightwave Technology*, **23** (**10**) (October 2005) 3125-3137

Dynamic Traffic Grooming in Optical Burst-Switched Networks F. Farahmand, Q. Zhang and J. P. Jue *IEEE/OSA Journal of Lightwave Technology*, **23** (**10**) (October 2005) 3167-3177

Multicast Traffic Grooming in Wavelength-Routed WDM Mesh Networks Using Dynamically Changing Light-Trees X. Huang, F. Farahmand and J. P. Jue *IEEE/OSA Journal of Lightwave Technology*, **23** (**10**) (October 2005) 3178-3187

Dynamic Lightpath Protection in WDM Mesh Networks under Wavelength-Continuity and Risk-Disjoint Constraints S. Yuan and J. P. Jue *Computer Networks Journal* (Elsevier), **48** (**2**) (June 2005) 91-112

Articles in Conference Proceedings

Analysis of TCP over Optical Burst-Switched Networks with Burst Retransmission Q. Zhang, V. Vokkarane, Y. Wang and J. P. Jue *Proceedings, IEEE Globecom 2005*, St. Louis, MO: November 2005, *IEEE* 4 (2005) 1978-1983

A Closed-Loop Rate-Based Contention Control for Optical Burst Switched Networks F. Farahmand, Q. Zhang and J. P. Jue *Proceedings, IEEE Globecom 2005*, St. Louis, MO: November 2005, *IEEE* 4 (2005) 1989-1993

Coordinated Survivability in IP-over-Optical Networks with IP-Layer Dual-Homing and Optical-Layer Protection V. Vokkarane, J. Wang and J. P. Jue *Proceedings, IEEE/CreateNet BroadNets 2005*, Boston, MA: October 2005, *IEEE* (2005) 259-268

Evaluation of Burst Retransmission in Optical Burst-Switched Networks Q. Zhang, V. Vokkarane, Y. Wang and J. P. Jue *Proceedings, IEEE/CreateNet BroadNets 2005*, Boston, MA: October 2005, *IEEE* (2005) 297-303

Data Burst Grooming in Optical Burst-Switched Networks F. Farahmand, Q. Zhang and J. P. Jue *Proceedings, IEEE/CreateNet BroadNets 2005*, Boston, MA: October 2005, *IEEE* (2005) 312-322

A Multi-Layered Approach to Optical Burst-Switched Based Grids F. Farahmand, M. De Leenheer, P. Thysebaert, B. Volckaert, F. De Turck, B. Dhoedt, P. Demeester and J. P. Jue *IEEE/CreateNet Fifth International Workshop on Optical Burst/Packet Switching (WOBS)* 2005, Boston, MA: October 2005, *IEEE* (2005) 127-134

Anycast Routing in Optical Burst Switched Grid Networks M. De Leenheer, P. Thysebaert, B. Volckaert, F. De Turck, B. Dhoedt, P. Demeester, F. Farahmand and J. P. Jue *31st European Conference on Optical Communication (ECOC) 2005*, Glasgow, Scotland: (September 2005)

A Layered Architecture for Supporting Optical Burst Switching F. Farahmand, J. Jue, V. Vokkarane, J.J.P. C. Rodrigues and M.M. Freire *Proceedings of Telecommunications 2005*, Lisbon, Portugal: (July 2005) *IEEE* (2005) 213-218

An Analytical Model for Shared Fiber-Delay Line Buffers in Asynchronous Optical Packet and Burst Switches T. Zhang, K. Lu and J.P. Jue *Proceedings, IEEE ICC 2005*, Seoul, Korea: (May 2005) *IEEE* **3** (2005) 1636-1640

Burst Cloning: A Proactive Scheme to Reduce Data Loss in Optical Burst-Switched Networks X. Huang, V.M. Vokkarane and J.P. Jue *Proceedings, IEEE ICC 2005*, Seoul, Korea: (May 2005) *IEEE* **3** (2005) 1673-1677

Minimum-Color Path Problems for Reliability in Mesh Networks S. Yuan, S. Varma and J.P. Jue *Proceedings, IEEE Infocom 2005*, Miami, FL: (March 2005) *IEEE* **4** (2005) 2658-2669

Architectures and Performance of Fiber Delay Line Buffers in Packet-Based Multifiber Optical Networks T. Zhang, K. Lu and J.P. Jue *Proceedings, IEEE/OSA Optical Fiber Communication Conference 2005*, Anaheim, CA: (March 2005) *IEEE/OSA* **1** (2005) 220-222

Grants Awarded and Continued: Principal Investigator

CAREER: Design and Analysis of Photonic Packet-Switched Networks J.P. Jue NSF \$320,954 (2002-2007)

Student Travel Support for BroadNets 2004 Conference Jason P. Jue NSF, \$16,000, (8/1/04-1/31/05) NeTS-NR Collaborative Research: Multi-Layer Dual-Homing

Survivability for the Next-Generation Internet Jason P. Jue NSF, \$252,000 (9/1/04-8/31/07)

Murat Kantarcioglu, Assistant Professor, Computer Science

B.S., Middle East Technical University, 2000 M.S., Purdue University, 2002 Ph.D., Purdue University, 2005

Articles in Conference Proceedings

Security Issues in Querying Encrypted Murat Kantarcioglu and Chris Clifton 19th Annual IFIP WG 11.3 Working Conference on Data and Applications Security 2005, Storrs, CT (August 2005) 717-722

 Nasser Kehtarnavaz, Professor, Electrical and Computer Engineering B.S., University of Birmingham, England, 1982 M.S., Rice University, 1984 Ph.D., Rice University, 1987

Authored Book

Digital Signal Processing System-Level Design Using LabVIEW N. Kehtarnavaz and N. Kim Burlington, MA: Elsevier/Newnes (2005) 290 p.

Edited Conference Proceedings

Proceedings of the SPIE Conference on Real-Time Imaging IX (Vol. No. 5671)N. Kehtarnavaz and P. Laplante (Editors)Bellingham, WA: SPIE (2005) 263 p.

Articles in Refereed Journals

A Relational Approach to Zoom Tracking for Digital Still Cameras V. Peddigari and N. Kehtarnavaz *IEEE Transactions on Consumer Electronics* **51** (2005) 1051-1059

DWT-Based Scene Adaptive Color Quantization N. Kim and N. Kehtarnavaz *Journal of Real-Time Imaging* **11** (2005) 443-453

Real-Time Implementation Issues in Passive Auto Focusing for Digital Still CamerasM. Gamadia, V. Peddigari and N. Kehtarnavaz*Journal of Imaging Science and Technology* 49 (2005) 114-123

Classification of Nonstationary Narrowband Signals Using Segmented Chirp Features and Hidden Gauss-Markov Models P. Ainsleigh, S. Greineder and N. Kehtarnavaz IEEE Transactions on Signal Processing 53 (2005) 147-157

An Affine Invariant Curve Matching Method for Photo-Identification of Marine Mammals C. Gope, N. Kehtarnavaz, G. Hillman and B. Wursig *Pattern Recognition Journal* **38** (2005) 125-132

Articles in Conference Proceedings

Classification of EEG Signals Using Time-Frequency Representation C. Gope, N. Kehtarnavaz and D. Nair *Proceedings of the International Joint Conference on Neural Networks* Montreal, Canada (2005) 2502-2507

LabVIEW-based Software-Defined Radio: 4-QAM Modem N. Kim, N. Kehtarnavaz, M. Torlak and S. McCaslin *Proceedings of 9th World Multi-Conference on Systemics, Cybernetics, and Informatics* Orlando, FL (2005) Theme 2 - Paper No. 57

Real-Time Software Implementation of MP3 Player Using LabVIEW S. Adhyapak, N. Kehtarnavaz, N. Kim and A. Moriat *Proceedings of 9th World Multi-Conference on Systemics, Cybernetics, and Informatics* Orlando, FL (2005) Theme 6 - Paper No. 54

Real-Time Implementation of Zoom Tracking on TI DM Processor V. Peddigari and N. Kehtarnavaz *Proceedings of the SPIE Conference on Real-Time Imaging (Vol. 5671)* San Jose, CA (2005) 8-18

Grants Awarded and Continued: Principal Investigator

Gulf War Illness Research Program N. Kehtarnavaz, I. Panahi, P. Loizou, A. Nosratinia, D. McFarlane University of Texas Southwestern Medical Center \$64,800 (2005)

Image Blur Correction for Cell-Phone Cameras N. Kehtarnavaz Texas Instruments \$30,000 (2005)

Digital Camera Imagepipeline Improvements N. Kehtarnavaz Texas Instruments \$120,000 (2004-2007) LabVIEW-Based Educational/Research Program in Signal and Image Processing N. Kehtarnavaz and I. Panahi National Instruments \$150,000 (2004-2007)

Latifur Khan, Associate Professor, Computer Science B.Sc., Bangladesh Univ. of Engineering and Technology, 1993 M.S., University of Southern California, 1996 Ph.D., University of Southern California, 2000

Articles in Refereed Journals

A Study of the Model and Algorithms for Handling Location Dependent Continuous Queries Manish Gupta, Manghu Tu, Latifur Khan, Farokh Bastani and I-Ling Yen *The International Journal of Knowledge and Information Systems (KAIS)*, Springer- Verlag, **8 (4)** (2005) 414-437

Hierarchical Clustering for Complex Data Latifur Khan and Feng Luo *The International Journal on Artificial Intelligence Tools*, World Scientific Publishers, **14** (5) (2005) 791-810

A Framework for Effective Annotation of Information from Closed Captions Using Ontologies Latifur Khan, Dennis McLeod and Eduard Hovy *The Journal of Intelligent Information Systems (JIIS)*, Kluwer Academic Publishers, **25 (2)** (2005) 181-205

The 6th International Workshop on Multimedia Data Mining (MDM/KDD2005) Fatma Bouali, Latifur Khan and Florent Masseglia *SIGKDD Explorations* **7** (2) (2005) 148-150

Article in Edited Volumes

Classification Problems using Support Vector Machine in Data Mining Latifur Khan and Mamoun Awad *Encyclopedia of Data Warehousing and Mining*, Edited by John Wang Information Science Publishing, ISBN 1-59140-557-2, (2005)

Bayesian Networks Ahmed Bashir, Latifur Khan and Mamoun Awad *Encyclopedia of Data Warehousing and Mining*, Edited by John Wang Information Science Publishing, ISBN 1-59140-557-2, (2005)

Articles in Conference Proceedings

Image Annotations By Combining Multiple Evidence & WordNet Yohan Chin, Latifur Khan, Lei Wang and Mamoun Awad *Proceedings of 13th Annual ACM International Conference on Multimedia (MM 2005)*, Singapore (November 2005) 706-715

Improving Image Annotations using WordNet Yohan Chin, Lei Wang and Latifur Khan *Proceedings of International Workshop on Multimedia Information Systems (MIS 2005)*, Sorrento, Italy (September 2005) 115-130

A Framework for a Video Analysis Tool for Suspicious Event Detection Gal Lavee, Latifur Khan and Bhavani Thuraisingham *Proceedings of Sixth International Workshop on Multimedia Data Mining* in conjunction with KDD 2005: *The Eleventh ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* Chicago, IL, USA, (August 2005) 79-84

Message Correlation in Automated Communication Surveillance through Singular Value Decomposition Ryan Layfield, Latifur Khan and Bhavani Thuraisingham *Proceedings of Sixth International Workshop on Multimedia Data Mining* in conjunction with KDD 2005: *The Eleventh ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* Chicago, IL, USA, (August 2005) 85-88

Dependable Real-time Data Mining Bhavani Thuraisingham, Latifur Khan, Chris Clifton, John Maurer and Marion Certui Proceedings of 8th IEEE International Symposium on Object-oriented Realtime Distributed Computing, Seattle, Washington, (May 2005) 158-165

Grants Awarded and Continued: Principal Investigator

Feature Extraction for Finding Images/Video Latifur Khan Nokia Research Center, Irving, Texas \$30,000 (2005)

Kamran Kiasaleh, Professor, Electrical Engineering B.S., University of Southern California, 1981 M.S., University of Southern California, 1982 Ph.D., University of Southern California, 1986

Articles in Refereed Journals

Performance of APD-based, M-ary PPM Free-space Optical Communication Systems in Atmospheric Turbulence Kamran Kiasaleh *IEEE Transactions on Communications*, **53(9)** (2005)1455-1461

Articles in Conference Proceedings

A Joint Pre-coding and Scheduling Technique for Multi-user MIMO Systems Feng Teng and Kamran Kiasaleh 39th Asilomar Conference on Signals, Systems and Computers, Monterey, CA: (November 2005)

Receiver Architectures for On-Off-Keying, Free-Space Optical Communications with Avalanche Photodiode Arrays Michael Cole and Kamran Kiasaleh *Frontier in Optics, 89th OSA Annual Meeting, Laser Sciences XXI*, Tucson, AZ: (October 2005)

Impact of Turbulence on Multi-Wavelength Coherent Optical Communications Kamran Kiasaleh SPIE Symposium on Optics & Photonics, San Diego, CA, 5892, (August 2005) 228-238

Performance of APD-based binary PPM FSO Systems Kamran Kiasaleh SPIE Symposium on Optics and Photonics, San Diego, CA, 5892 (August 2005) 239-252

Grants Awarded and Continued: Principal Investigator

Erlang Capacity of OFDMA 4th Generation Wireless System, Kamran Kiasaleh Restricted Research Gift from Texas Instruments, \$30,000 (9/1/2004-8/31/2005)

Jiyoung Kim, Associate Professor, Materials Science and Engineering B.S., Seoul National University, 1986 M.S., Seoul National University, 1988 Ph.D., University of Texas, Austin, 1994

Articles in Refereed Journals

Enhanced Adhesion of Cu Film on a Low-k Materials Y.K. Ko, S. Lee, H.M. Lee, H.J. Yang, J.Y. Kim, J. Kim, J.H. Lee, H.J. Shin, W.J. Nam and J.G. Lee *Journal of Korean Physics Society* **47** (2005) S467-S470

Selective deposition of Co thin films for TFT gate electrode by non-optic method; micro-contacting and MOCVD H. Yang, T. Kwon, J. Lee, J. Kim, H. Shin, M. Sung and J. Lee *Journal of Korean Physics Society* **47** (2005) S397-S400

Charateristics of Mo Based Alloys for Advanced Dual Metal Electrode Applications Taekwan Oh, Sanghee Won and J. Kim *Electronic Materials Letters* **1** (2005) 155-159

Tribological and wear studies of coatings fabricated by atomic layer deposition and by successive ionic layer adsorption an reaction for microelectromechanical devices

C. Nistorica, J. Liu, I. Gory, G. Skidmore, F. Mantiziba, B. Gnade and J. Kim

Journal of Vacuum Science and Technology A 23 (2005) 836-840

Dry Etching of TaN/HfO₂ Gate Stack Structure by Cl₂/SF₆/Ar Inductively Coupled Plasma

M. Shin, S. Na, N. Lee, T. Oh, J. Kim, T. Lee and J. Ahn Japanese Journal of Applied Physics 44 (7B) (2005) 5811 – 5818

Articles in Refereed Conference Proceedings

Thermally Stable $Mo_x Si_y N_z$ as a Metal gate Electrode for Advanced CMOS Devices

P. Zhao, J. Kim, M.J. Kim, B.E. Gnade and R.M. Wallace *Characterization and Metrology for ULSI Technology, AIP Conference Proceedings*, Richardson, Dallas: 788 (March 2005) 152-155

 $Mo_xSi_yN_z$ Metal Gate Electrode with Tunable Work Function for Advanced CMOS

P. Zhao, J. Kim, M.J. Kim, B.E. Gnade and R.M. Wallace *Extended Abstracts of the International Conference on Solid State Devices and Materials*, Kobe, Japan: (September 2005) 848-849 Nanotubes Alignment Using Magnetic Field and Self-Assembled Monolayers D. Jeong, S. Won, H. Shin, J. Lee and J. Kim *International Conference on Electroceramics*, Seoul, Korea, (June 14, 2005) NM-10

In-situ Electrical Characterization on Nanotubes Using Nanomanipulators D. Cha, R.M. Wallace, B.E. Gnade, M.J. Kim, D. Jeong and J. Kim *International Conference on Electroceramics*, Seoul, Korea (June 14, 2005) NM-30

Thermal Stability of Mo Based Metal Gate Stacks for Advanced CMOS Applications T. Oh, B. Gnade, M.J. Kim, R.M. Wallace and J. Kim

International Conference on Electroceramics, Seoul, Korea (June 14, 2005) P-I-14

ALD Metal Oxide Nanotube Fabrication J. Kim, S. Won, D. Jeong, H. Shin and J. Lee *AVS 5th International Conference on Atomic Layer Deposition 2005*, San Jose, CA (Aug. 10, 2005)

Thermal Stability of Amorphous LaAlO₃ Thin Films on Si(100) Deposited by Plasma Sputtering and Molecular Beam Deposition P. Zhao, F.S. Aguirre-Tostado, J. Kim, M.J. Kim, B.E. Gnade and R.M. Wallace *SRC Techcon 2005*, Portland, OR: (October 25, 2005)

The Effects of Nitrogen and Silicon Compositions on Work Function and Thermal Stability of Mo_xSi_yN_z/SiO₂ Gate Stack P. Zhao, J. Kim, M. J. Kim, B. E. Gnade and R. M. Wallace *SRC Techcon 2005*, Portland, OR: (October 24, 2005)

The Effect of Nitrogen Incorporation on the Thermal Stability of La, Hfaluminate Gate Stacks on Silicon P. Sivasubramani, P. Zhao, F.S. Aguirre-Tostado, J. Kim, M.J. Kim, B.E. Gnade and R.M. Wallace *AVS 52nd International Symposium* (October 31, 2005)

Selective Atomic Layer Deposition (ALD) for Fabrication of Metal and Oxide Nanotubes J. Kim, D. Jeong, S. Won, H. Shin and J. Lee *AVS 52nd International Symposium*, Boston, MA (Nov. 2, 2005) In-situ nano fabrication and electrical characterization for TiO₂ nanotubes using dual beam focused ion beam and nanomanipulator D. K. Cha, J Huang, T Zheng, J.B Jeon, T.H Lee, Jiyoung Kim, R.M Wallace, B.E Gnade and M.J Kim *MRS Fall Symposium*, Boston, MA: (November 29, 2005)

Grants Awarded and Continued: Principle Investigator

Advanced Gate Stack Capacitors J. Kim COSAR (subcontract from Hanyang Univ. (Korea)) \$120,000 + \$80,000 (EJS match) (09/2005 - 08/2007)

Stand-alone Nanotube Device Technology J. Kim(PI), Moon Kim (Co-PI) Center for Nano-structured Materials Technology (Agency of Ministry of Science and Technology, Korea) \$180,000 + \$50,000 (EJS matching) (10/2005 - 03/2008)

Patents

Lower electrode structure of capacitor having diffusion barrier for ULSI memory and method for forming lower electrode structure of capacitor and capacitor Jiyoung Kim Korean Patent #1005434200000 (2005)

Moon J. Kim, Professor, Electrical Engineering B.S., Arizona State University, 1984 M.S., Arizona State University, 1986 Ph.D., Arizona, State University, 1988

Articles in Refereed Journals

Dopant penetration studies through Hf silicate M. Quevedo-Lopez, MR. Visokay, J.J. Chambers, M.J. Bevam, A. LiFatou, L. Colombo, M.J. Kim, B.E. Gnade and R.M. Wallace *Journal of Applied Physics* **97** (2005) 043508

Outdiffusion of La and Al from Amorphous LaAlO₃ in Direct Contact with Si (001) P. Sivasubramani, M.J. Kim, B.E. Gnade, R.M. Wallace, L.F. Edge, D.G. Schlom, H.S. Craft and J.-P. Maria *Applied Physics Letters* **86** (2005) 201901 5 nm Ruthenium Thin Film as a Directly Plateable Copper Diffusion Barrier T.N. Arunagiri, Y. Zhang, O. Chyan, M. El-Bouanani, M.J. Kim, K.H. Chen, C.T. Wu and L.C. Chen *Applied Physics Letters* **86** (2005) 083104

In-situ Electrical Characterization of Nano-Interconnect Structures in the FIB D.K. Cha, Y. Ai, J. Huang, T. Zheng, R.M. Wallace, B.E. Gnade and M.J. Kim

Microscopy and Microanalysis 11 (Suppl 2) (2005) 818-819

Characterization of nanoscale local lattice strains in Si CMOS by convergent beam electron diffraction J. Huang, D.K. Cha, P.R. Chidambaram, R.B. Irwin, P.J. Jones and M.J. Kim

Microscopy and Microanalysis 11 (Suppl 2) (2005) 2084-2085

Articles in Refereed Conference Proceedings

Thermally stable MoxSiyNz as a metal gate electrode for advanced CMOS devices

P. Zhao, J. Kim, M.J. Kim, B.E. Gnade and R.M. Wallace *Proceedings of the Characterization and Metrology for ULSI Technology, AIP Conference* **788** Richardson, TX. (March 2005) 152-155

Thermal stability studies of advanced gate stack structures on Si (100) P. Sivasubramani, P. Zhao, M.J. Kim, B.E. Gnade, R.M. Wallace, L.F. Edge, D.G. Schlom, G.N. Parsons and V. Misra *Proceedings of the Characterization and Metrology for ULSI Technology, AIP Conference* **788** Richardson, TX. (March 2005) 156-160

HRTEM for nano-electronic materials research M.J. Kim, R.M. Wallace and B.E. Gnade *Proceedings of the Characterization and Metrology for ULSI Technology, AIP Conference* **788** Richardson, TX. (March 2005) 558-564

Low temperature integration of CdZnTe(211)B/Si(100) by wafer bonding J. Huang, D.K. Cha, A. Kaleczyc, J.H. Dinan, R.W. Carpenter and M.J. Kim *Proceedings of the Electrochemical Society* Vol. 2005-06 (2005) 128-133

Activation process and bonding mechanisms of Si/LiNbO3 and LiNbO3/LiNbO3 at room temperature M.R. Howlader, T. Suga and M.J. Kim

Proceedings of the Electrochemical Society Vol. 2005-06 (2005) 319-325

Mo_XSi_YN_Z Metal Gate Electrode with Tunable Work Function for Advanced CMOS P. Zhao, J. Kim, M.J. Kim, B.E. Gnade and R.M. Wallace *Extended Extracts of the International Conference on Solid State Devices and Materials*, Kobe, Japan, **A-8-1** (2005) 848-849

High Performance Gate First HfSiON Dielectric Satisfying 45nm Node
Requirements M. A. Quevedo-Lopez, S. A. Krishnan, P. D. Kirsch, H. J.
Li, J. H. Sim, C. Huffman, J. J. Peterson, B. H. Lee, G. Pant, B. E. Gnade,
M. J. Kim, R. M. Wallace, D. Guo, H. Bu and T.P. Ma
2005 IEEE International Electron Devices Meeting (IEDM) Technical
Digest, Washington, DC (November 2005) 437-440

Grants Awarded and Continued: Principal Investigator

Integration of CdTe(211)B/Si(100) by Wafer Bonding M.J. Kim NVESD, \$30,000 (05/2004-06/2005)

GOALI: Nanoscale characterization and development of ultra low-k dielectric xerogel films M.J. Kim NSF (subcontract from UNT), \$245,227 (08/2004-07/2007)

Characterization of Nanoscale Lattice Strain in CMOS Devices with Advanced TEM Techniques M.J. Kim SRC (\$70,000) (07/2004-06/2006)

KATECH-UTD International Collaboration on Nanotechnology M.J. Kim KATECH, \$286,980 (09/2004-06/2006)

KETI-UTD MEMS Project M.J. Kim KETI \$439,560 (07/2005-06/2007)

Integration and Defect Analysis: CdTe/Si System M.J. Kim Army-NVESD \$25,000 (09/2005-08/2006)

Nanocharacterization of Si CMOS Devices with STI Structure: Phase I M.J. Kim

Micron Technologies, Inc. \$5,000 (10/2005-03/2006)

International Research Collaboration on Nanotechnology M.J. Kim KATECH \$300,000 (09/2005-08/2007)

Unrestricted Gift to support Nanoscale Strain Analysis Research M.J. Kim Texas Instruments \$10,000 (10/2005)

Unrestricted Gift to support Nanocharacterization Research M.J. Kim International SEMATECH, Inc. \$3,000 (11/2005)

Gil S. Lee, Associate Professor, Electrical Engineering B.E., Kyungpook National University, Korea, 1975 M.E., Kyungpook National University, Korea, 1977 M.S., University of Texas, Austin, 1983 Ph.D., North Carolina State University, 1987

Articles in Refereed Journals

Sub-micron Matallic Electrothermal Actuators J.S. Lee, D.S. Park, A.K. Nallani, G.S. Lee and J.B. Lee *Journal of Micromechanics and Microengineering* **15** (2005) 322-327

Effects of Oxygen Plasma on Optical and Electrical Characteristics of Multiwall Carbon Nanotubes Grown on a Four-Probe Patterned Fe Layer J.S. Lee, A. Chandrashekar, B.M. Park, L.J. Overzet, and G.S. Lee *Journal of Vacuum Science and Technology* **B 23** (2005) 1013-1017 *Virtual Journal of Nanoscale Science & Technology* **11** (**21**) (2005) http://www.vjnano.org

Plasma-Enhanced Chemical Vapor Deposition Growth of Fluorinated Amorphous Carbon Thin Films Using C4F8 and Si2H6/He for Low-Dielectric-Constant Intermetallic-Layer Dielectrics H. Kim, J. Shin, D. Kwon, H. Seo and G.S. Lee *Japanese Journal of Applied Physics* **44** (2005) 4886-4890

Ultralow-k silicon containing fluorocarbon films prepared by plasma enhanced chemical vapor `deposition Yoonyoung Jin, P.K. Ajmera, G.S. Lee and Varshni Singh *Journal of Electronic Materials* **34** (2005) 1193-1205 Surface modification of silicon containing fluorocarbon films prepared by plasma enhanced chemical vapor deposition Yoonyoung Jin, Yoharnnes Desta, Jost Goettert, G.S. Lee and P.K. Ajmera *Journal of Vacuum Science and Technology* **A 23** (2005) 666-670

Articles in Conference Proceedings

Multiwall Carbon Nanotubes Grown on a Four-probe Patterned Catalyst Layer for Chemical Sensor Applications J.-S. Lee, A. Chandrashekar, K. Parikh, K. Cattanach, S. K. Manohar, L. Overzet and G. S. Lee *Transducers 05*, Seoul, Korea, (June 5-9, 2005)

Grants Awarded and Continued: Principal Investigator

Nanotechnology Education G.S. Lee (PI) and L. Overzet Pohang Science and Technology University, \$100,000 (4/2005 – 3/2006)

KITECH Local lab G.S. Lee (PI), D. J. Yang and L. Overzet Korean Institute of Industrial Technology (KITECH) \$45,000 (10/2005 – 12/2005)

Hoi Lee, Assistant Professor, Electrical Engineering
 B.Eng., Hong Kong University of Science and Technology, 1998
 M.Ph., Hong Kong University of Science and Technology, 2000
 Ph.D., Hong Kong University of Science and Technology, 2004

Articles in Refereed Journals

Design of Low-Power Analog Driver Based on Slew-Rate-Enhancement Circuit for CMOS Low-Dropout Regulators H. Lee, P. K. T. Mok and K. N. Leung *IEEE Transaction on Circuits and Systems II*, **52** (September 2005) 563-567

Switching Noise and Shoot-Through Current Reduction Techniques for Switched-Capacitor Voltage Doubler H. Lee and P. K. T. Mok *IEEE Journal of Solid-state Circuits*, **40** (May 2005) 1136-1146

Articles in Conference Proceedings

Low Voltage Analog Circuit Techniques Using Bias-Current Re-Utilization, Self-Biasing and Signal Superposition H. Lee, K. N. Leung and P. K. T. Mok *Proceedings IEEE International Conference on Electronic Devices and Solid-State Circuits*, (December 2005) 533-536

A 35 nW/pixel 2D Visual Motion Sensor G. B. Zhang, H. Lee and J. Liu *Proceedings European Solid-State Circuits Conference*, (September 2005) 419-422

A Continuous-Time Adaptive FIR Equalizer with INV-AIL Delay Line for 2.5Gb/s Data Communication X. F. Lin, H. Lee and J. Liu *Proceedings IEEE Custom Integrated Circuits Conference*, (September 2005) 413-416

A SC DC-DC Converter with Pseudo-Continuous Output Regulation Using a Three-Stage Switchable Opamp H. Lee and P. K. T. Mok *IEEE International Solid-State Circuits Conference Digest of Technical Papers*, (February 2005) 288-289

Jeong-Bong (J-B.) Lee, Associate Professor, Electrical Engineering

B.S., Hanyang University, Korea, 1986 M.S., Georgia Inst. Of Technology, 1993 Ph.D., Georgia Inst. Of Technology, 1997

Articles in Refereed Journals

Sub-micron metallic electrothermal actuators Jeong-Soo Lee, Daniel S. Park, Arun Nallani, Gil Lee and J-B. Lee *Journal of Micromechanics and Microengineering*, **15** (2) (February 2005) 322-327

Thermo-optic photonic crystal light modulator Mark Tinker and J-B. Lee *Applied Physics Letters*, **86** (**22**) (May 30, 2005) 221111-1-3, *Virtual Journal of Nanoscale Science & Technology* (Selected for the June 13, 2005 issue)

Negative refraction in a Si-polymer photonic crystal membrane E. Schonbrun, Mark Tinker, W. Park and J-B. Lee

IEEE Photonics Technology Letter, 17(6) (June 2005) 1196-1198

Thermal and optical simulation of a photonic crystal light modulator based on the thermo-optic shift of the cut-off frequency Mark Tinker and J-B. Lee *Optics Express*, **13(18)** (September 2005) 7174-7188

Articles in Conference Proceedings

Microlens array and micro clampers for high performance optoelectronic devices packaging Nallani, T. Chen, J-B. Lee, D. Hayes and D. Wallace *Proceedings of the 13th international conference on solid-state sensors and actuators (Transducers '05)* Seoul, Korea, (June 2005) 421-426

Wafer level optoelectronic device packaging using MEMS A. Nallani, T. Chen, J-B. Lee, D. Hayes and D. Wallace *Proceedings of the Microtechnology for the New Millennium 2005 Conference*, Seville, Spain, SPIE vol. **5836** (May 2005) 116-127

Negative refraction based on the superprism effect in a micromachined flexible photonic crystal M. Tinker, J-B. Lee, E. Schonbrun and W. Park *Proceedings of the Microtechnology for the New Millennium 2005 Conference*, Seville, Spain, SPIE vol. **5840** (May 2005) 147-154

Microassembled tunable MEMS inductor N. Sarkar, D. Yan, M. Ellis, E. Horne, J-B. Lee, H. Lu, R. Mansour, A. Nallani and G. Skidmore *Proceedings IEEE Workshop on Micro Electro Mechanical Systems*, Miami, FL, (January 2005) 183-186

Grants Awarded and Continued: Principal Investigator

Assemblers for Nanotechnology Applications and Manufacturing: Enabling the Nanotechnology Era J.B. Lee National Institute of Standard and Technology, a subcontract from Zyvex Corporation \$349,281 (June, 2002-October, 2006)

CAREER: Massive replication of RF/Microwave MEMS passives modules J. B. Lee

National Science Foundation \$374,999 (May 1, 2001 – April 30, 2006)

Development of a microelectrode array technology for minimally invasive skin impedance probes J.B. Lee Vital Assist, Inc., New Orleans, LA \$ 30,000 (September, 2004 - May, 2005)

Neuro-micro-Transponders: Wireless Neural Control of Artificial Arms and Hands J.B. Lee DARPA DSO (Original award of \$ 8.7M to Zyvex Corporation, \$2.2M subcontract awarded to UTD, of which \$415,000 is my portion) (7/1/05 – 12/31/08)

Jin Liu, Associate Professor, Electrical Engineering B.S., Zhongshan University, 1992 M.S., University of Houston, 1995 Ph.D., Georgia Institute of Technology, 1999

Articles in Refereed Journals

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 Yang Liu, Assistant Professor, Engineering and Computer Science B.S., Tsinghua University, 1997 M.S., Tsinghua University, 2000 Ph.D., Purdue University, 2004

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Ying Liu, Assistant Professor, Computer Science

B.S., Nanjing University, China, 1995

M.S., Georgia Institute of Technology, 2001

Ph.D., Georgia Institute of Technology, 2005

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Philipos C. Loizou, Professor, Electrical Engineering

B.S. Arizona State University, 1989 M.S. Arizona State University, 1991 Ph.D., Arizona State University, 1995

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Duncan MacFarlane, Professor, Electrical Engineering

Sc.B., Brown University, 1984 Sc.M., Brown University, 1985 Ph.D., Portland State University, 1989 M.B.A., Southern Methodist University, 1998 Licensed Professional Engineer, State of Texas

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Rym Mili, Associate Professor, Computer Science Doctorat de Spécialité, University of Tunis, 1991 Ph.D., University of Ottawa, 1996

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Hlaing Minn, Assistant Professor, Electrical Engineering
 B.E., Yangon Institute of Technology, Myanmar, 1995
 M. Eng., Asian Institute of Technology, Thailand, 1997
 Ph.D., University of Victoria, Canada, 2001

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Neeraj Mittal, Assistant Professor, Computer Science B.Tech., Indian Inst. of Technology, Delhi, India, 1995 M.S., University of Texas, Austin, 1997 Ph.D., University of Texas, Austin, 2002

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 Dan Moldovan, Professor, Electrical Engineering and Computer Science Dipl. Engr., Polytechnic Inst. of Bucharest, Romania, 1969
 M.S., Columbia University, 1974
 Ph.D., Columbia University, 1978

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Yu-Chung Vincent Ng, Assistant Professor, Computer Science

B.S., Carnegie Mellon University, 1997;M.Eng., Cornell University, 1998;M.S., Cornell University, 2002;Ph.D., Cornell University, 2004

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 Aria Nosratinia, Associate Professor, Electrical Engineering B.S., University of Tehran, Iran, 1988 M.A.Sc., University of Windsor, Canada, 1991 Ph.D., University of Illinois, Urbana, 1996

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Equipment Grant Aria Nosratinia TxTEC Consortium \$10,000 (2005)

Mehrdad Nourani, Associate Professor, Electrical Engineering

B.S. University of Tehran, Iran, 1984 M.S., University of Tehran, Iran, 1986 Ph.D., Case Western Reserve University, 1993

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Simeon C. Ntafos, Professor, Computer Science

B.S., Wilkes College, 1974 M.S., Northwestern University, 1977

Ph.D., Northwestern University, 1979

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Raimund J. Ober, Professor, Electrical Engineering

M.Ph., Cambridge University, 1985 Ph.D., Cambridge University, 1987

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A novel approach to characterize the fundamental performance limit in quantitative optical microscopy: applications to single molecule fluorescence experiments S. Ram, E.S. Ward and R.J. Ober *Biophysical Journal*, **88** (2005), 664a, Part 2

Analysis of FcRn-mediated trafficking of IgGs at the single molecule level R.J. Ober, C. Martinez, C. Vaccaro, J. Zhou, Q. Tang and E.S. Ward *Biophysical Journal*, **88**(2005), 195a, Part 2

Single molecule studies of exocytic events R.J. Ober, C. Martinez, C. Vacarro, J. Zhou, Q. Tang, S. Ram and E.S. Ward *Abstract Book of Focus on Microscopy 2005, Jena, Germany, 20-23 March* 2005, (2005) 168

Fundamental performance limit for the resolution of a fluorescence microscope S. Ram, E.S. Ward and R.J. Ober *Abstract Book of Focus on Microscopy 2005, Jena, Germany, 20-23 March* 2005 (2005) 233

Simultaneous imaging of multiple focal planes in fluorescence microscopy for the study of cellular dynamics
P. Prabhat, S. Ram, E.S. Ward, and R.J. Ober *Abstract Book of Focus on Microscopy 2005, Jena, Germany, 20-23 March 2005* (2005) 143

Grants Awarded and Continued: Principal Investigator

Image processing of immunological microscopy samples R.J. Ober National Institutes of Health \$261,607 (2004-2005)

Quantitative Aspects of Single Molecule Microscopy Raimund J. Ober National Institutes of Health (R01 GM071048) \$1 046 500 (1 May 2005 -30 April 2009)

Lawrence J. Overzet, Professor Electrical Engineering

B.S.E.E., University of Illinois, 1983M.S.E.E., University of Illinois, 1985Ph.D., University of Illinois, 1988Licensed Professional Engineer, State of Texas

Articles in Refereed Journals

SiO_xF_y passivation layer in silicon cryoetching X. Mellhaoui, R. Dussart, T. Tillocher, P. Lefaucheux and P. Ranson, M. Boufnichel and L. J. Overzet *Journal of Applied Physics* **98** (2005) 104901 (10 pages)

Effect of surface temperature on plasma-surface interactions in an inductively coupled modified gaseous electronics conference (mGEC) reactor

B.S. Zhou, E. A. Joseph, S. P. Sant, L. J. Overzet and M. J. Goeckner *Journal of Vacuum Science and Technology* A 23 (2005) 1657-67

Effects of oxygen plasma on optical and electrical characteristics of multiwall carbon nanotubes grown on a four-probe patterned Fe layer Jeong-Soo Lee, Anand Chandrashekar, Bong Mo Park, Lawrence J. Overzetand G.S. Lee

Journal of Vacuum Science and Technology **B 23** (2005) 1013-7 selected for the May 30, 2005 issue of *Virtual Journal of Nanoscale Science & Technology*. The Virtual Journal, which is published by the American Institute of Physics and the American Physical Society in cooperation with numerous other societies and publishers, is an edited compilation of links to articles from participating publishers, covering a focused area of frontier research. http://www.vjnano.org. *Virtual Journal of Nanoscale Science & Technology* **11**, Issue 21 (2005)

Electron confinement on magnetic field lines M. J. Goeckner, L. J. Overzet, G. Earle and J Maynard *IEEE Transactions on Plasma Science* **33** (2005) 436-7

Articles in Conference Proceedings

Correlation of Nano-Pore Structure to Integration Issues for Low-к Interconnects Eric A. Joseph, M. J. Goeckner, L. J. Overzet, D. Gidley and B.E.E. Kastenmeier *Advanced Metalization Conference*, Montreal QC Canada: (Oct 21-23, 2004) *MRS proceeding of the Advanced Metallization Conference* 2003 edited by G. Ray, T. Smy, T. Ohta and M. Tsujimura (2004) 537-541

Nanotechnology using carbon nanotube G.S. Lee (presenting) J.-S. Lee, A. Chandrashekar and L. Overzet *Proceedings of the 2004 International Conference on Computers, Communications and Systems*, Daegu, Korea (November 26-27, 2004) 1–25

Grants Awarded and Continued: Principal Investigator

Help in determining the optical properties of various lamps L. J. Overzet (PI) and M. J. Goeckner (Co-PI) Raytheon Systems Company, \$1,000 (8/04)

Help in growth of thin organic films L. J. Overzet (PI) and M. J. Goeckner (Co-PI) Western Life Sciences, \$24,500 (11/04 – 11/05)

Renewal of Generation and stabilization of a carbon plasma L. J. Overzet (PI) and G. S. Lee Lockheed Martin Co. \$230,138 (2005)

Large Area Nanotube Growth Using Novel Atmospheric Pressure Plasmas L. J. Overzet (PI) and G. S. Lee Lockheed Martin Co. \$174,896 (1/04 – 12/04)

Pulsed Plasma Synthesis of New nanostructured Inorganic/Organic Composite Materials L. J. Overzet and M. J. Goeckner at UTD with R. Timmons at UT Arlington AFOSR-SPRING - \$120,000. (2005-2007)

Optical emission spectroscopy of Feedgas injection L. Overzet and M. Goeckner Entegris, \$11,264 (2005-2006)

Patents

Ion-Ion Plasma Processing with Bias Modulation Synchronized to Time-Modulated Discharges Sivananda K. Kanakasabapathy and Lawrence J. Overzet U.S. Patent No. *6,875,700* (April 5, 2005) Issa M.S. Panahi, Assistant Professor, Electrical Engineering B.S., Tehran Polytechnic University, 1973 M.S., Florida Institute of Technology, 1978 Ph.D., University of Colorado, Boulder, 1988

Articles in Refereed Journals

Active Optical Lattice Filters Loius R. Hunt, V. Govindan, Issa M.S. Panahi, Jian Tong, Govind Kannan, Duncan L. MacFarlane and Gary A. Evans *EURASIP Journal on Applied Signal Processing* **10** (2005) 1452-1461

Articles in Conference Proceedings

An Efficient Finite Positivity Test Algorithm For Statistical Signal Processing Applications Swamigathan Ganesan and Issa M.S. Panahi *IEEE Statistical Signal Processing Workshop*, Bordeaux, France, (July 17-20, 2005) 5 pages

A Class of Quadratic FIR Filters with Applications to Spectral Shaping and Narrow Band Generation Issa M.S. Panahi and Kripasagar Venkat *IEEE Statistical Signal Processing Workshop*, Bordeaux, France, (July 17-20, 2005) 6 pages

Analysis and Synthesis of Optical Lattice Filters with Adjustable Gains Issa M.S. Panahi, Govind Kannan, Louis R. Hunt, Duncan L. MacFarlane, Jian Tomg and Nicholas Spears *IEEE, LEOS Conference*, San Diego, CA, USA, (July 25-27, 2005)

Active Optical Lattice Filters as Programmable ODE Solvers Louis R. Hunt, Nicholas Spears, T. Constantinescu, Govind Kannan, Duncan L. MacFarlane, Issa M.S. Panahi, V. Ramakrishna and Jian Tong *IEEE, LEOS Conference*, San Diego, CA, USA (July 2005)

Lattice Filter With Adjustable Gains and Its Applications in Optical Signal Processing

Issa M.S. Panahi, Govind Kannan, Louis R. Hunt, Duncan L. MacFarlane and Jian Tong

IEEE Statistical Signal Processing Workshop, Bordeaux, France, (July 17-20, 2005)

Grants Awarded and Continued: Principal Investigator

LabVIEW-based Educational/Research Program in Signal and Image Processing Issa M.S. Panahi and Nasser Kehtarnavaz National Instruments, \$150,000 (Jan. 2004- Jan 2007)

Active Noise Control for Functional MRI-Brain Scanner system Issa M.S. Panahi University of Texas Southwestern Medical Center, Federally funded Research Program Project on Gulf War Syndrome, \$60,000 (Sep. 2005-Sep. 2006)

B. Prabhakaran, Associate Professor, Computer Science and Engineering Ph.D., Indian Inst. Of Technology, Madras, India, 1995

Articles in Refereed Journals

MAC Layer Admission Control and Priority Re-allocation for Handling QoS Guarantees in Non-cooperative Wireless LANs Ming Li and B. Prabhakaran *ACM/Springer Mobile Networks and Applications (MONET)*, **10** (6) (December 2005) 947-959

Real-time Classification of Variable Length Multi-attribute Motion Data Chuanjun Li, Latifur Khan and B. Prabhakaran *Knowledge and Information Systems: An International Journal (KAIS)*, Springer, (July, 2005)

Flexible Disk Scheduling Strategies for Multimedia Presentation Servers S. Emilda, L. Jacob, O. Daescu and B. Prabhakaran *Multimedia Tools and Applications*, Springer, **26** (1) (February 2005) 81 – 99

Articles in Edited Volumes

Feature Selection for Classification of Variable length Multi-attribute Motions Chuanjun Li, Latifur Khan and B. Prabhakaran *Multimedia Data Mining and Knowledge Discovery*, edited by V. A. Petrushin and L. Khan Springer (2005) 129-152

Middleware for Streaming 3D Progressive Meshes Over Lossy Networks H. Li and B. Prabhakaran *Encyclopedia of Multimedia*, edited by Borko Furht

Springer (2005) 409-416

Compressed progressive meshes H. Li and B. Prabhakaran *Encyclopedia of Multimedia*, edited by Borko Furht Springer (2005) 84-85

Progressive Forest split H. Li and B. Prabhakaran *Encyclopedia of Multimedia*, edited by Borko Furht Springer (2005) 714-715

Valence driven conquest H. Li and B. Prabhakaran *Encyclopedia of Multimedia*, edited by Borko Furht Springer (2005) 857-858

Articles in Conference Proceedings

On Supporting Reliable QoS in Multi-hop Multi-rate Mobile Ad Hoc Networks Ming Li and B. Prabhakaran Proceedings of the First IEEE International Workshop on Next Generation Wireless Networks (WoNGeN'05), Goa, India, (December 18-21, 2005)

A Similarity Measure for Motion Stream Segmentation and Recognition Chuanjun Li and B. Prabhakaran

Proceedings of the Sixth International Workshop on Multimedia Data Mining (MDM/KDD), Chicago, IL USA (August 2005) 89-94

Similarity Measure for Multi-Attribute Data Chuanjun Li, B. Prabhakaran and S.Q. Zheng *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2005)*, Philadelphia, PA USA (March 2005) 1149 - 1152

Grants Awarded and Continued: Principal Investigator

REU/CAREER: Animation databases B. Prabhakaran NSF (National Science Foundation) NSF Research Experience for Undergraduates (REU) Supplemental Award, IIS (Information & Intelligent Systems) REU/CAREER Award, IIS-0237954, \$6,000 (August 15, 2004- September 1, 2005) 3D Watermarking B. Prabhakaran AT&T Foundation, \$33,333 (December 2004 – June 2006)

CAREER: Animation databases B. Prabhakaran NSF (National Science Foundation) IIS (Information & Intelligent Systems) CAREER Award, IIS-0237954, \$400,000 (August 15, 2003 – 2008)

Storage, Retrieval, and Delivery of 3D Models and Multi-attribute Motion Data
B. Prabhakaran
US Army Research Office (ARO). Program: Discrete
Mathematics and Computer Graphics, Mathematics Division. \$240,000
(September 2005 – August 2008)

Ravi Prakash, Associate Professor, Computer Science B.Tech., Indian Inst. of Technology, Delhi, 1990 M.S., Ohio State University, 1991 Ph.D., Ohio State University, 1996

Articles in Refereed Journals

Causality and Spatial-Temporal Ordering of Events in Mobile Systems R. Prakash and R. Baldoni *ACM/Kluwer Journal on Mobile Networks and Applications* (MONET) **9 5** (October 2004) 507-516

Articles in Conference Proceedings

Hop-Constrained Energy-Aware Routing in Wireless Sensor Networks S.R. Gandham, M. Dawande and R. Prakash *Proceedings of the IEEE Globecom Conference*, St. Louis, MO. (November 2005) 5

Time-efficient layer-2 auto-confguration for cognitive radios S. Krishnamurthy, M. Thoppian, S. Kuppa, R. Chandrasekaran, S. Venkatesan, N. Mittal and R. Prakash *Proceedings of the IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS)* Phoenix, Arizona (November 14-16, 2005) SAN: Smart Ad hoc Networks S.R. Gandham, S. Kuppa and R. Prakash *Proceedings of the IEEE Vehicular Technology Conference (VTC)* Dallas, TX. (September 2005) 1638-1642

Control Channel based MAC Layer Confguration, Routing and Situation Awareness for Cognitive Radio Networks S. Krishnamurthy, M. Thoppian, S. Venkatesan and R. Prakash. *Proceedings of MILCOM 2005*, Atlantic City, New Jersey (October 2005)

Link Scheduling in Sensor Networks: Distributed Edge Coloring Revisited S.R. Gandham, M. Dawande and R. Prakash *Proceedings of the IEEE Infocom 2005*, Miami, Fl (March 2005)

Adaptive IEEE 802.11 DCF Scheme with Knowledge-based Backoff S. Kuppa and R. Prakash *Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC)*, New Orleans, La. (March 2005) 63-68

Grants Awarded and Continued: Principal Investigator

CAREER Award: Resource management in mobile ad hoc networks - the spatial dimension Ravi Prakash National Science Foundation \$250,000 (April, 2001 - March, 2006)

Self-confguring Hubless Wireless Networking: RFID Networking on Ships Ravi Prakash Williams-Pyro, Inc./U.S. Navy, (\$65,000) (September 2004- June 2006)

US-Switzerland Cooperative Research: Reliable Communication Support for Resource Management in Mobile Ad Hoc Networks Ravi Prakash National Science Foundation, (\$29,668) (September 2004-August 2006)

Balaji Raghavachari, Professor, Computer Science

B.Tech., Indian Inst. of Technology, 1984 M.S., Pennsylvania State University, 1992 Ph.D., Pennsylvania State University, 1992

Articles in Refereed Journals

Approximation algorithms for the capacitated minimum spanning tree problem and its variants in network design R. Jothi and B. Raghavachari *ACM Transactions on Algorithms* **1** (2) (2005) 265-282

Dual-homing protection in IP-over-WDM networks J. Wang, V. Vokkarane, R. Jothi, X. Qi, B. Raghavachari and J. Jue *IEEE/OSA Journal of Lightwave Technology*, **23** (**10**) (2005) 3111-3124

Articles in Conference Proceedings

Approximation algorithms for the minimum cardinality two-connected spanning subgraph problem P. Gubbala and B. Raghavachari

Proceedings of the Eleventh Conference on Integer Programming and Combinatorial Optimization (IPCO) Berlin, Germany: (June 2005) 422-436

Grants Awarded and Continued: Principal Investigator

Hazardous materials contingency planning and emergency response information systemB. Raghavachari (PI) E.D. Harris and G. GuptaU.S. Environmental Protection Agency \$2,000,000 (2001-2005)

Rama Sandireddy, Assistant Professor, Electrical Engineering

B.S., Regional Engineering Coll., India, 1996 M.S., University of Missouri-Rolla, 1999 Ph.D., Iowa State University, 2003

Articles in Refereed Journals

Scalable, Memory Efficient, High-Speed Algorithms for IP Lookups Rama Sangireddy, Natsuhiko Futamura, Srinivas Aluru and Arun K. Somani

IEEE/ACM Transactions on Networking **13 (4)** (August 2005) 802-812

Articles in Conference Proceedings

A scalable scheme for dependable cache consistency architecture in wireless ad-hoc networks Hui Wang, Sreekala Puduru and Rama Sangireddy *First IEEE International Workshop on Next Generation Wireless Networks*, Goa, India (December 2005) IEEE (2005) 33-40 Mohammad Saquib, Associate Professor, Electrical Engineering

B.S., Bangladesh University of Engineering and Technology, 1991 M.S., Rutgers University, 1995 Ph.D., Rutgers University, 1998

Articles in Refereed Journals

Soft-length Symbol Protocols for Wirelesss Networks O. Jegbefume, M. Saquib and M.Z. Win *IEEE Communications Letters* **9** (**9**) (September 2005) 793-795

Articles in Conference Proceedings

A Reduced-Complexity Hybrid Receiver for the Downlink Multicell CDMA System M. Habibul Islam, M. Saquib and N.Al-Dhahir *IEEE Vehicular Technology Conference* Dallas, TX (September 2005) 1756-1760

Interference Cancellation using ARTM Tier-1 Waveforms in Aeronautical Telemetry T. M. Ali, M. Saquib and M. Rice *Proceedings of International Telemetry Conference* Las Vegas, NV: (24 -27 October 2005)

On the Channel Energy Capture in Ultra-Wide-Band Transmitted Reference Systems Y. Na and M. Saquib *Proceedings of 62nd Vehicular Technology Conference* Dallas, TX: (25 -28 September 2005)

Chip-Interleaved DS-CDMA Transmission over Time-varying Channels Y. Na, M. Saquib and M. Z. Win *Proceedings of 62nd Vehicular Technology Conference* Dallas, TX: (25 -28 September 2005)

Pilot-aided Chip-Interleaved DS-CDMA Transmission over Time-varying Channels (invited paper)
Y. Na, M. Saquib and M. Z. Win
Proceedings of Noise in Communications Systems, Austin, TX: (23-26 May 2005) International Society for Optical Engineering

Multicode CDMA Transmission over Time-Varying Multipath Channels

Y. Na, M. Saquib and G. Mandyam *Proceedings of Wireless Communications and Networking Conference*, New Orleans, LA: (13 -17 March 2005)

Grants Awarded and Continued: Principal Investigator

Incremental Spreading and Reduncancy Protocols for Time-Varying Wireless Networks M. Saquib Nokia University Relations and Nokia Research Center, Irving, TX: \$56,036 (September 2004-July 2005)

Adaptive Aggregation/Frangmentation of Network Abstraction Layer (NAL) Units M. Saquib Nokia University Relations and Nokia Research Center, Irving, TX: \$30,000 (June 2005-March 2006)

Adaptive Routing and Transmission Protocols for Multi-hop Wireless Networks M. Saquib Project Emmitt \$30,000 (June 2005-May 2006)

Kamil Sarac, Assistant Professor, Computer Science

B.S., Middle East Technical University, Ankara, Turkey, 1994 M.S., University of California, Santa Barbara, 1997 Ph.D., University of California, Santa Barbara, 2002

Articles in Refereed Journals

Application Layer Reachability Monitoring for IP Multicast Kamil Sarac and Kevin C. Almeroth *Elsevier Computer Networks Journal*, **48** (**2**) (June 2005) 195-213

Monitoring IP Multicast in the Internet: Recent Advances and Existing Challenges Kamil Sarac and Kevin C. Almeroth *IEEE Communications Magazine*, **43** (**10**) (October 2005) 85-91

Articles in Conference Proceedings

IP Traceback Based on Packet Marking and Logging Chao Gong and Kamil Sarac *IEEE International Conference on Communication (ICC)*, Seoul, KOREA: (May 16-20, 2005) (2005)

Log-based IP Traceback in AS-Level Partial Deployment Scenario Chao Gong, Trinh Le, Turgay Korkmaz, and Kamil Sarac *South Central Information Security Symposium (SCISS)*, Austin, TX, USA: (April, 2005)

Facilitating Robust Multicast Group Management, Avijit Mazumder, Kevin C. Almeroth, and Kamil Sarac ACM International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV), Skamania, WA, USA: (June 13-14, 2005) 183-188

Receiver-Controlled Communication: A Silver Bullet to DoS Attacks?, Chao Gong and Kamil Sarac *IEEE Emerging Technologies Conference (ETC)*, Richardson, TX, USA: (September 9-10, 2005)

Intersection Characteristics of End-to-End Internet Paths and Trees, Sevcan Bilir, Kamil Sarac, and Turgay Korkmaz *IEEE International Conference on Network Protocols (ICNP)*, Boston, MA, USA: (November 6-9, 2005) 378-387

Single Packet IP Traceback in AS-level Partial Deployment Scenario, Chao Gong, Trinh Le, Turgay Korkmaz, and Kamil Sarac *IEEE GLOBECOM 2005*, St. Louis, MO, USA: (November 28 – December 2, 2005)

Grants Awarded and Continued: Principal Investigator

P2cast: A Receiver-Controlled Communication Service for the Internet Kamil Sarac Eric Jonsson School of Engineering and Computer Science – (SAIAL Lab Related Internal Grant) \$33,333 (April 2005 – August 2006)

Haim Schweitzer, Associate Professor, Computer Science B.S., Tel Aviv University, 1982 Ph.D., The Hebrew University of Jerusalem, 1986

Articles in Conference Proceedings

Fast selection of linear features in image data Feng Wu and Haim Schweitzer *Proceedings of the IEEE Workshop on Learning in Computer Vision and Pattern Recognition* San Diego, CA (June 2005) Feature selection for learning from images Feng Wu and Haim Schweitzer *Proceedings of the 2005 International Conference on Computer Vision* (Vision '05) Las Vegas, NV (June 2005) 127-133

Grants Awarded and Continued: Principal Investigator

A Logic-Based Integral-Images Approach to Face Detection and Benchmarking Human Face Matching Performance over Changes in Photometric Conditions Haim Schweitzer TSWG \$630,000 (April 2003-June 2005)

Hsing-Mean (Edwin) Sha, Professor, Computer Science

B.S.E., National Taiwan University, 1986 M.A., Princeton University, 1991 Ph.D., Princeton University, 1992

Articles in Refereed Journals

Efficient Assignment and Scheduling for Heterogeneous DSP Systems Z. Shao, Q. Zhuge, C. Xue and E. H.-M. Sha *IEEE Transaction on Parallel and DistributedSystems* **16** (6) (June 2005) 516-525

Combining Extended Retiming and Unfolding for Rate-Optimal Graph Transformation T. W. O'Neil and E. H.-M. Sha Journal of VLSI Signal Processing Systems for Signal, Image, and Video Technology **39** (March 2005) 273-293

Efficient Scheduling for Low-Power High-Performance DSP Applications Z. Shao, Q. Zhuge, Y. Zhang and E. H.-M. Sha *International Journal of High Performance Computing and Networking* (IJHCN) **1** (2005) 4-16

Articles in Conference Proceedings

A Fast Non Iterative Scheduler for Input-Queued Switches with Unbuffered Crossbars K. Chen, E. H.-M. Sha and S. Q. Zheng Proceedings of the 8th International Symposium on Parallel Architectures, Algorithms, and Networks (I-SPAN 2005), Las Vegas, Nevada, (December 2005) 230-235

Maximum Loop Distribution and Fusion for Two-Level Loops Considering Code Size

M. Liu, Q. Zhuge, Z. Shao, C. Xue, M. Qiu and E. H.-M. Sha Proceedings of the 8th International Symposium on Parallel Architectures, Algorithms, and Networks (I-SPAN 2005), Las Vegas, Nevada, (December 2005) 126-131

Optimal Assignment with Guaranteed Confidence Probability for Trees on Heterogeneous DSP Systems M. Qiu, M. Liu, C. Xue, Z. Shao, Q. Zhuge and E. H.-M. Sha *Proceedings of the 17th IASTED International Conference on Parallel and Distributed Computing Systems*, Phoenix, Arizona, (November 2005) 295-300

Static Scheduling of Split-Node Data Flow Graphs T. W. O'Neil and E. H.-M. Sha *Proceedings of the 17th IASTED International Conference on Parallel and Distributed Computing Systems*, Phoenix, Arizona, (November 2005) 125-130

Loop Distribution and Fusion Considering Timing and Code Size for Embedded DSP

M. Liu, Q. Zhuge, Z. Shao, C. Xue, M. Qiu and E. H.-M. Sha Proceedings of the 2005 IFIP International Conference on Embedded And Ubiquitous Computing (EUC-05), Nagasaki, Japan, (December 2005) 121-130

Optimizing Nested Loops with Iterational and Instructional Retiming

C. Xue, Z. Shao, M. Liu, M. Qiu and E. H.-M. Sha Proceedings of the 2005 IFIP International Conference on Embedded And Ubiquitous Computing (EUC-05), Nagasaki, Japan, (December 2005) 164-173

Iterational Retiming: Maximize Iteration-Level Parallelism for Nested Loops C. Xue, Z. Shao, M. Liu and E. H.-M. Sha Proceedings of the 2005 ACM/IEEE/IFIP International Conference on Hardware -Software Codesign and System Synthesis (ISSS-CODES'05) New York, New York (September 2005) 309-314 A Feasible Baseline Architecture for Building and Evaluating Distributed Systems K. Chen, M. Liiu and E. H.-M. Sha *Proceedings of the 18th International Conference on Parallel and Distributed Computing Systems* (ISCA PDCS 2005), Las Vegas, NV(September 2005) 348-353

Multi-level Loop Fusion with Minimal Code Size M. Liu, Z. Shao, C. Xue, K. Chen E. H.-M. Sha *Proceedings of the 18th International Conference on Parallel and Distributed Computing Systems* (ISCA PDCS 2005), Las Vegas, NV(September 2005)185-190

An Active Detecting Method Against SYN Flooding Attack B. Xiao, W. Chen Y He and E. H.-M. Sha *Proceedings of the 11th IEEE International Conference on Parallel and Distributed Systems* (ICPADS 2005), Fukuoka, Japan (July 2005) 709-715

Minimizing Energy via Loop Scheduling and DVS for Multi-Core Embedded Systems

Y. Chen, Z. Shao, Q. Zhuge, C. Xue, B. Xiao and E. H.-M. Sha Proceedings of the IEEE/IFIP International Workshop on Parallel and Distributed EMbedded Systems (PDES 2005), in conjunction with ICAPDS 2005, Fukuoka, Japan (July 2005) 2-6

Universal Routing in Distributed Networks K. Chen, B. Xiao and E. H.-M. Sha *Proceedings of the IEEE/IFIP International Workshop on Parallel and Distributed EMbedded Systems* (PDES 2005), in conjunction with ICAPDS 2005, Fukuoka, Japan (July 2005) 555-559

Efficient Array & Pointer Bound Checking Against Buffer Overflow Attacks via Hardware/Software Z. Shao, C. Xue, Q. Zhuge, E. H.-M. Sha and B. Xiao *Proceedings of IEEE International Conference on Information Technology* (ITCC 05), Las Vegas, NV (April 2005) 780-785

Optimizing DSP Scheduling via Address Assignment with Array and Loop Transformation C. Xue, Z. Shao, Y. Chen and E. H.-M. Sha *Proceedings of 2005 IEEE International Conference on Acoustics, Speech, and Signal Processing*, **5** Philadelphia, PA (March 2005) 85-88 High-level Synthesis for DSP Applications using
Heterogeneous Functional Units
Z. Shao, Q. Zhuge, C. Xue, B. Xiao and E. H.-M. Sha
Proceedings of IEEE Asia and South Pacific Design Automation
Conference (ASP DAC 05), Shanghai, China (January 2005) 302-304

Grants Awarded and Continued: Principal Investigator

Design Space Exploration and Synthesis for Multiple-Mode Embedded Systems E. Sha National Science Foundation \$210,000 (2003-2007)

The Development of Trustworthy Computing Course, E. Sha Microsoft \$50,000 (2005)

Embedded Systems Research E. Sha Wind River, Wind River University Program Grant, Platform Software for Network Equipment and Development tools for VxWorks \$100,000 (2004 -2005)

Embedded Systems Design and Optimization E. Sha Altera Corporation, Altera University Program Grant, QUARTUS II development suites \$26,170 (2005)

Ivan H. Sudborough, Founders Professor, Computer Science B.S., California State University, San Luis Obispo, 1966 M.S., California State University, Hayward, 1967 Ph.D., Pennsylvania State University, 1971

Articles in Refereed Journals

The sequential sum problem and performance bounds on the greedy algorithm for the on-line Steiner problem Z. Miller, M. Perkel, D. Pritikin and I.H. Sudborough *Networks* **45** (**3**) (2005) 143-164

Articles in Conference Proceedings

A Faster and Simpler 2-Approximation Algorithm for Block Sorting I.H. Sudborough, W.W. Bein, L. Larmore and L. Morales *Proceedings of the 15th International Symposium on Fundamentals of Computation Theory (FCT) 2005*, (August 2005)

 Anthony D. Sullivan, Senior Lecturer, Electrical Engineering B.S., Fordham, University, 1960
 M.S. George Washington University, 1970
 Ph.S., The University of Texas at Dallas, 1982

Patents

Knowledge Management System and Method Anthony D. Sullivan U.S. Patent No. *6*,*820*,*071* (2005)

Marco Tacca, Senior Lecturer, Electrical Engineering Ph.D., The University of Texas at Dallas, 2002

Articles in Refereed Journals

Efficient Computation of Multi-Component Failure Stratum Probabilities Z. Pándi, M. Tacca and A. Fumagalli *IEEE Communications Letters* **9** (10) (2005) 939-941

Articles in Conference Proceedings

Optimized Transmission Power Levels in a Cooperative ARZ Protocol for Microwave Recharged Wireless Sensors P. Monti, M. Tacca, and A. Fumagalli 2005 IEEE International Conference on Communications, 2005, ICC 2005 Seoul, Korea (16-20 May 2005) 3290-3294

A threshold based on-line RWA algorithm with end-to-end reliability guarantees Z. Pandi, M. Tacca, and A. Fumagalli *Proceedings of IFIP-IEEE oth Working Conference on Optical Network Design and Modeling, ONDM 2005*, Milano, Italy (7-9 February 2005) 447-453

Cooperative and noncooperative ARQ protocols for microwave recharged sensor nodes

M. Tacca, P. Monti, and A. Fumagalli *IEEE Proceeedings of the Second European Workshop on Wireless Sensor Networks*, 2005 Istanbul, Turkey (31 January-2 February 2005) 45-56

Lakshman S. Tamil, Professor, Electrical Engineering B.E., Madurai Kamaraj University, 1981 M.Tech., Indian Institute of Technology, Kharagpur, 1983 M.S., University of Rhode Island, 1989 Ph.D., University of Rhode Island, 1989

Articles in Conference Proceedings

Multi-terabit hybrid photonic switching and routing L. S. Tamil and A. Fumagalli *Asia Pacific Optical Conference-2005* Beijing China: (November 4-7, 2005) SPIE and Optical Society of China 6022IN (2005) xx-xx (Invited paper)

Bhavani Thuraisingham, Computer Science

B.Sc., University of Ceylon, 1975 M.Sc., University of Bristol, UK, 1977 M.S., University of Minnesota, 1984 Ph.D., University of Wales, UK, 1979

Edited Books

Web Information Management Security Bhavani Thuraisingham and E. Ferrari Artech House (2005)

Articles in Refereed Journals

Security Standards for Secure Semantic Web Bhavani Thuraisingham *Computer Standards and Interface Journal* (North Holland) (March 2005)

Privacy Constraint Processing in a Privacy-Enhanced Database Management System Bhavani Thuraisingham *Data and Knowledge Engineering Journal* (North Holland) (November 2005) Privacy Sensitive Data Mining: Developments and Directions Bhavani Thuraisingham Journal of Database Management (January 2005)

Security and Privacy for Semantic E-Business Bhavani Thuraisingham Communications of ACM (November 2005)

Articles in Conference Proceedings

A Framework for a Video Analysis Tool for Suspicious Event Detection Gal Lavee, Latifur Khan and Bhavani Thuraisingham *Proceedings of Sixth International Workshop on Multimedia Data Mining* in conjunction with KDD 2005: *The Eleventh ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* Chicago, IL, USA, (August 2005) 79-84

Message Correlation in Automated Communication Surveillance through Singular Value Decomposition Ryan Layfield, Latifur Khan and Bhavani Thuraisingham *Proceedings of Sixth International Workshop on Multimedia Data Mining* in conjunction with KDD 2005: *The Eleventh ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* Chicago, IL, USA, (August 2005) 85-88

Dependable Real-time Data Mining Bhavani Thuraisingham, Latifur Khan, Chris Clifton, John Maurer and Marion Certui Proceedings of 8th IEEE International Symposium on Object-oriented Realtime Distributed Computing, Seattle, Washington, (May 2005) 158-165

Murat Torlak, Associate Professor, Electrical Engineering

B.S., Hacettepe University, Turkey, 1992 M.S., University of Texas, Austin, 1995 Ph.D., University of Texas, Austin, 1999

Articles in Conference Proceedings

Performance of Optimum Combining with Channel Estimation Errors B. Kececioglu, M. Torlak and A. Kavak *Proceedings of IEEE Vehicular Technology Conference-Fall*, Dallas, TX (September 25-28, 2005) 2230 - 2234 Large System Analysis of Hybrid Channel Estimation Methods in CDMA Systems O. Ozdemir, M. Torlak and N. Al-Dhahir *Proceedings of IEEE Vehicular Technology Conference-Fall*, Dallas, TX (September 25-28, 2005)1988 – 1992

S. Venkatesan, Associate Professor, Computer Science

B.Tech., Indian Inst. of Technology, Madras, 1981M.Tech., Indian Inst. of Technology, Madras, 1983M.S., University of Pittsburgh, 1985Ph.D., University of Pittsburgh, 1988

Articles in Refereed Journals

Low-Intrusive consistent disk checkpointing: A tool for digital forensics S. Venkatesan and S. Sitaraman *Journal of Universal Computer Science* **11(1)** (2005) 20--36

Articles in Conference Proceedings

Origins: An Approach to Trace Fast Spreading Worms to Their Roots R. Thurimella, S. Sitaraman and S. Venkatesan *South Central Information Security Symposium*, Austin, TX (April 2005)

Forensic Analysis of File System Intrusions using Improved Backtracking S. Sitaraman and S. Venkatesan *Proceedings of 3rd IEEE International Workshop on Information Assurance*, College Park, MD (March 2005) 154-163

Byteprints: A tool to gather Digital Evidence S. Sitaraman, S. Krishnamurthy and S. Venkatesan *Proceedings of IEEE International Conference on Information Technology: Coding and Computing*, Las Vegas, NV, April 2005

Energy Efficient Sensor, Relay and Base Station Placements for Coverage, Connectivity and Routing
M. Patel, R. Chandrasekaran, and S. Venkatesan
Proceedings of 24th IEEE International Performance, Computing and Communications Conference, Phoenix, AZ, (April 2005)

Grants Awarded and Continued: Principal Investigator

Network-Centric Operations and Warfare Modeling and Simulation

Integration Center S. Venkatesan Rockwell Collins, Inc \$200,000 (September 1, 2005-August 31, 2006)

Research and Development of 3GE-WLAN Seamless Handover for 3GPP Evolution User Equipment S. Venkatesan ETRI, Korea (\$100,000) (September 2005-August 2006)

Development of sensor hardware and wireless network test beds S. Venkatesan Signal Technology \$90,000 (\$78,000 in cash and \$12,000 in new equipment) (September 2005-December 2006)

Research in search technologies S. Venkatesan Sabre Holdings \$17,000 (2005)

Environment Monitoring in Warehouses using Sensors and Sensor Networks S. Venkatesan Crystal Technology & Industries, Inc., \$35,000, (September 1 2005-August 31, 2006)

A Sensor Network and Mobile Ad hoc Network Testbed S. Venkatesan Rockwell Collins, Inc. \$25,000 (2005)

Robert M. Wallace, Professor, Electrical Engineering and Physics

B.S., University of Pittsburgh, 1982 M.S., University of Pittsburgh, 1984

Ph.D., University of Pittsburgh, 1988

Articles in Refereed Journals

Outdiffusion of La and Al from amorphous LaAlO₃ in direct contact with Si (001) P. Sivasubramani, M. J. Kim, B. E. Gnade, R. M. Wallace, L. F. Edge, D. G. Schlom, H. S. Craft, and J.-P. Maria *Applied Physics Letters* **86** (2005) 201901

Dopant Penetration through Hf-Silicate M.A. Quevedo-Lopez, M.R. Visokay, J.J. Chambers, M.J. Bevan, A. Lifatou, L. Colombo, M.J. Kim, B.E. Gnade, and R.M. Wallace *Journal of Applied Physics* **97** (2005) 043508 Adsorption Kinetics of p-Nitrobenzenethiol Self-Assembled Monolayers on a Gold Surface Jakubowicz, H. Jia, R.M. Wallace and B. Gnade *Langmuir* **21** (2005) 950-955

High Sensitivity Gas Permeability Measurement System for Thin Plastic Films Ranade, N.A. D'Souza, R.M.Wallace and B.E.Gnade *Review of Scientific Instruments* **76** (2005) 013902

Ultrascaled hafnium silicon oxynitride gate dielectrics with excellent carrier mobility and reliability M. A. Quevedo-Lopez, S. A. Krishnan, P. D. Kirsch, G. Pant, B. E. Gnade, and R. M. Wallace *Applied Physics Letters* **87** (2005) 262902

Atomic transport and chemical stability of nitrogen in ultrathin HfSiON gate dielectrics C. Driemeier, K.P. Bastos, G.V. Soares, L. Miotti, R.P. Pezzi and J. Morais, I.J. R. Baumvol, R.M. Wallace and B.E. Gnade *Applied Physics A: Materials Science & Processing* **80** (2005) 1045-1047

Articles in Edited Volumes

Materials Issues for High-k Gate Dielectric Selection and Integration R.M.Wallace and G.D.Wilk *High Dielectric Constant Materials, VLSI MOSFET Applications*, edited by H.R.Huff and D.C.Gilmer Berlin, Heidelberg: Springer-Verlag (2005) 253-286

Dielectric Materials For Microelectronics R.M.Wallace *Handbook of Electronic and Optoelectronic Materials*, edited by S. Kasap and P. Capper Berlin, Heidelberg: Springer-Verlag (2006)

Science and Technology of High-Dielectric Constant (K) Thin Films for Next Generation CMOS R.M.Wallace and O.A.Auciello *Thin Films and Heterostructures for Oxide Electronics*, edited by S. B. Ogale Berlin, Heidelberg: Springer-Verlag (2005) 79-126

Articles in Conference Proceedings

High Resolution Profiling Using Ion Scattering and Resonant Nuclear Reactions R.P.Pezzi, R.M.Wallace, M.Copel and I.J.R.Baumvol *Characterization and Metrology for ULSI Technology* AIP Conference Proceedings **788** (2005) 571-578

HRTEM for Nano-Electronic Materials Research M.J.Kim, R.M.Wallace and B.E.Gnade *Characterization and Metrology for ULSI Technology*AIP Conference Proceedings **788** (2005) 558-564

Thermal Stability Studies of Advanced Gate Stack Structures on Si(100) P. Sivasubramani, P.Zhao, M.J.Kim, B.E.Gnade, R.M.Wallace, L.F.Edge, D.G.Schlom, G.N.Parsons and V.Misra *Characterization and Metrology for ULSI Technology*AIP Conference Proceedings **788** (2005) 156-160

Thermally Stable Mo_xSi_yN_z as a Metal gate Electrode for Advanced CMOS Devices P.Zhao, J.Kim, M.J.Kim, B.E.Gnade and R.M.Wallace *Characterization and Metrology for ULSI Technology* AIP Conference Proceedings **788** (2005) 152-155

 $Mo_XSi_YN_Z$ Metal Gate Electrode with Tunable Work Function for Advanced CMOS

P. Zhao, J. kim, M.J. Kim, B.E. Gnade and R.M. Wallace *Extended Abstracts of the International Conference on Solid State Devices and Materials*, Kobe, Japan, A-8-1, (2005) 848-849

High Performance Gate First HfSiON Dielectric Satisfying 45nm Node Requirements

M. A. Quevedo-Lopez, S. A. Krishnan, P. D. Kirsch, H. J. Li, J. H. Sim, C. Huffman, J. J. Peterson, B. H. Lee, G. Pant, B. E. Gnade, M. J. Kim, R. M. Wallace, D. Guo, H. Bu and T.P. Ma

2005 IEEE International Electron Devices Meeting (IEDM) Technical Digest, Washington, D.C. (2005) 437-440

In-situ Electrical Characterization of Nano-Interconnect Structures in the FIB

D.K. Cha, Yuming Ai, J. Huang, T. Zheng, R.M. Wallace, B.E. Gnade and M.J. Kim

Microscopy and Microanalysis 2005, Honolulu, Hawaii – USA, (August 3, 2005)

Thermal Stability of Amorphous LaAlO₃ Thin Films on Si(100) Deposited by Plasma Sputtering and Molecular Beam Deposition P. Zhao, F.S. Aguirre-Tostado, J. Kim, M.J. Kim, B.E. Gnade and R.M. Wallace *SRC Techcon 2005*, Portland, OR: (October 25, 2005)

The Effects of Nitrogen and Silicon Compositions on Work Function and Thermal Stability of Mo_XSi_YN_Z/SiO₂ Gate Stack P. Zhao, J. Kim, M. J. Kim, B. E. Gnade R. M. Wallace *SRC Techcon 2005*, Portland, OR: (October 24, 2005)

Effect of Poly (3-hexylthiophene) Film Thickness on Organic Thin Film Transistor Properties

H. Jia, S Gowrisanker, G.K. Pant, R.M. Wallace and B.E. Gnade *AVS 52nd International Symposium,* Boston, MA: (November 4, 2005)

The Effect of Nitrogen Incorporation on the Thermal Stability of La, Hfaluminate Gate Stacks on Silicon

P. Sivasubramani, P. Zhao, F.S. Aguirre-Tostado, J. Kim, M.J. Kim, B.E. Gnade and R.M. Wallace

AVS 52nd International Symposium, Boston, MA: (October 31, 2005)

Ni Diffusion Studies From NiSi/Hf-based High-K Dielectric Stack Into Si P. Zhao, M.J. Kim, B.E. Gnade and R.M. Wallace *AVS 52nd International Symposium*, Boston, MA: (November 2, 2005)

XPS Study of Se-passivated Si(100) F.S. Aguirre-Tostado, R.M. Wallace, J. Zhu, G. Larrieu, E. Maldonado, W.P. Kirk and M. Tao AVS 52nd International Symposium, Boston, MA: (November 1, 2005)

In-situ direct measurement of electrical properties of micron size Metal-Oxide-Silicon (MOS) capacitor by using Nanoprobe embedded Scanning Electron Microscopy (SEM)

T. Zheng, Y. Ai, D. K. Cha, J Huang, G. Pant, H. Jia, M. J. Kim, R. M. Wallace and Bruce Gnade *MRS Fall Symposium*, Boston, MA: (November 28, 2005)

In-situ nano fabrication and electrical characterization for TiO₂ nanotubes using dual beam focused ion beam and nanomanipulator D. K. Cha, J Huang, T Zheng, J.B Jeon, T.H Lee, Jiyoung Kim, R.M Wallace, B.E Gnade and M.J Kim *MRS Fall Symposium*, Boston, MA: (November 29, 2005)

Enhanced Reliability In Ultra-Scaled HfSiON Gate Dielectrics Through Suppressed Crystallization M. A. Quevedo-Lopez, S. A. Krishnan, P. D. Kirsch, H. J. Li, J. J. Peterson, B. H. Lee, G. Pant, B.E. Gnade, M. J. Kim and R. M. Wallace *IEEE Semiconductor Interface Specialists Conference*, Washington, D.C.: (December 1-3, 2005)

Patents

High permittivity silicate gate dielectric J.M. Anthony, S.R. Summerfelt, G.D. Wilk and R.M. Wallace U.S. Patent No. *6*,841,439 (2005)

Method for removing contaminants from a substrate M. A. Quevedo-Lopez, R.M.Wallace, M. El-Bouanani and B.E.Gnade U.S. Patent No. *6,933,235* (2005)

Method of forming metal oxide gate structures and capacitor electrodes G.D.Wilk, R.M.Wallace, J.M. Anthony and P. McIntyre U.S. Patent No. *6,897,105* (2005)

Grants Awarded and Continued: Principal Investigator

Hydrogen barrier studies for FeRAM devices R.M.Wallace and B.E.Gnade Semiconductor Research Corporation (\$105,000/3 years + EJS match \$123,000/3years) (7/1/05 - 7/1/08)

X-ray Diffraction Suite R.M.Wallace VonEhr Foundation (\$426,024 – matched with \$44,053 from SPRING, \$15,623 from the Erik Jonsson School)

Plasma Enhanced Chemical Vapor Deposition Tool dor the Cleanroom Research Laboratory R.M.Wallace Mykrolis Corporation, Equipment valued at \$75,000, matched with \$23,817 from the Erik Jonsson School (new unit cost: \$250,000)

Diffusion of Gate Stack Constituents R.M.Wallace Semiconductor Research Corporation \$160,730 (4/2004 – 4/2006)

Hf-based metal gate stack stability research R.M.Wallace and B.E.Gnade Semiconductor Research Corporation \$105,000 (7/2004 – 7/2007) Yuke Wang, Associate Professor, Computer Science
 B.Sc., University of Science and Technology of China, 1989
 M.Sc., University of Saskatchewan, Canada, 1992
 Ph.D., University of Saskatchewan, Canada, 1996

Articles in Refereed Journals

Conference Key Establishment for Heterogeneous Networks Wade Trappe, Yuke Wang and R. J. Liu *IEEE/ACM Transaction on Networking* **13** (2005) 134-146

Articles in Conference Proceedings

Token bucket based statistical regulator for S-BIND modeled on-line trafficLie Qian, Yuke Wang and Hong Shen 2005 IEEE International Conference on Communications, ICC 2005, Korea (16-20 May 2005) IEEE **1** (2005) 125-129

A new coordinated scheduling algorithm in distributed bandwidth broker QoS architecture

A. Krishnamurthy, Lie Qian, Yuke Wang, P. Dauchy and A. Conte 2005 IEEE International Conference on Communications, ICC 2005, Korea, (16-20 May) IEEE, 1 (2005) 384-388

A new fair bandwidth allocation algorithm for multimedia multicasting in diffserv

Lie Qian, Yiyan Tang, Yuke Wang, B. Bou-Diab and W. Olesinski *IEEE Global Telecommunications Conference GLOBECOM 2005*, St. Louis, MO. USA, (28 November-2 December 2005) *IEEE* **2** (2005) 847-851

Analysis of TCP over optical burst-switched networks with burst retransmission

Qiong Zhang, V.M. Vokkarane, Yuke Wang and J.P. Jue *IEEE Global Telecommunications Conference GLOBECOM 2005*, St. Louis, MO. USA, (28 November-2 December 2005) *IEEE* **4** (2005) 1978-1983

Optimized software implementation of a full-rate IEEE 802.11a compliant digital baseband transmitter on a digital signal processor Yiyan Tang, Lie Qian and Yuke Wang *IEEE Global Telecommunications Conference GLOBECOM 2005*, St. Louis, USA, (28 November-2 December 2005) *IEEE* **4** (2005) 2194-2198 Evaluation of burst retransmission in optical burst-switched networks Qiong Zhang, V.M. Vokkarane, Yuke Wang and J.P. Jue 2nd International Conference on Broadband Networks (October 3-7 2005) 297-303

W. Eric Wong, Associate Professor, Computer Science
 B.S., Eastern Michigan University, 1988
 M.S., Purdue University, 1991
 Ph.D., Purdue University, 1993

Articles in Refereed Journals

Smart Debugging Software Architectural Design in SDL W. E. Wong, T. Sugeta, Y. Qi and J. C. Maldonado *Journal of Systems and Software* **76(1)** (April 2005) 15-28

Static and Dynamic Distance Metrics for Feature-Based Code Analysis W. E. Wong and S. Gokhale *Journal of Systems and Software*, **74(3)** (February 2005) 283-295

Coverage Testing of Java Programs and Components A. Vincenzi, J. C. Maldonado, W. E. Wong and M. Delamaro *Journal of Science of Computer Programming*, **56(1-2)** (April 2005) 211-230

An Approach of Integrating SIP in Converged Multimodal/Multimedia Communication Services F. Liu, W. Guo, W. Chou and W. E. Wong *Journal of Telecommunication Systems*, **28(3-4)** (March 2005) 387-405

Articles in Conference Proceedings

Effective Generation of Test Sequences for Structural Testing of Concurrent Programs W. E. Wong, Y. Lei and X. Ma *Proceedings of The 10th IEEE International Conference on Engineering of Complex Computer Systems (ICECCS)*, Shanghai, China, (June 2005) 539-548

Source Code-Based Software Risk Assessing W. E. Wong, Y. Qi and K. Cooper *Proceedings of The 20th ACM Symposium on Applied Computing (ACM SAC)*, Santa Fe, New Mexico, (March 2005) 1485-1490 A Novel Framework for Non-deterministic Testing of Message-Passing Programs

Y. Lei and W. E. Wong

Proceedings of The 9th IEEE International Symposium on High Assurance Systems Engineering (HASE), Heidelberg, Germany (October 2005) 66-75

Analyzing Message-Passing Programs through Visual Slicing G. Shanmuganathan, K. Zhang, W. E. Wong and Y. Qi *Proceedings of IEEE International Conference on Information Technology (ITCC)*, Las Vegas, Nevada, (April 2005) 341-346

An Empirical Study on the Specification of Components Using Fuzzy Logic

K. Cooper, J. Cangussu, R. Lin, S. Ganesan, R. Soundararadjane and W. E. Wong

Proceedings of The 8th International SIGSOFT Symposium on Component-based

Software Engineering (CBSE), St. Louis, Missouri, (May 2005) (Lecture Notes in Computer Science by Springer, Volume **3489**) 155-170

Optimizing and Simplifying Software Metric Models Constructed Using Maximum Likelihood Methods

V. Chan and W. E. Wong

Proceedings of The 29th IEEE International Computer Software and Applications Conference (COMPSAC), Edinburgh, Scotland, (July 2005) 65-70

A Case Study of the Recursive Least Squares Estimation Approach to Adaptive Testing for Software Components H. Hu, W. E. Wong, C. H. Jiang and K. Y. Cai *Proceedings of The 5th International Conference on Quality Software* (OSIC), Melbourne, Australia, (September 2005) 135-141

An Integrated Solution for Testing and Analyzing Java Applications in an Industrial Setting

W. E. Wong and J. J. Li

Proceedings of The 12th IEEE Asia-Pacific Software Engineering Conference (APSEC), Taipei, Taiwan, (December 2005) 576-583

Modeling Reusable Security Aspects for Software Architecture: a Pattern Driven Approach

L. Dai, K. Cooper and W. E. Wong

Proceedings of The 17th International Conference on Software Engineering and Knowledge Engineering (SEKE), Taipei, Taiwan, (July 2005) 163-168 A Constraint Solver for Code-Based Test Data Generation J. J. Li and W. E. Wong, X. Ma and D. Weiss *Proceedings of The 17th International Conference on Software Engineering and Knowledge Engineering (SEKE)*, Taipei, Taiwan, (July 2005) 300-305

An Agent-Based Testing Approach for Web Applications Y. Qi, D. Kung and W. E. Wong *Proceedings of The Second International Workshop on Quality Assurance and Testing of Web-Based Applications (co-located with COMPSAC* 2005), Edinburgh, Scotland, (July 2005) 45-50

A Run-Time Adaptable Persistency Service using the SMART Framework J. Cangussu, K. Cooper, W. E. Wong and X. Ma *Proceedings of The 38th Hawaii International Conference on System Sciences (HICSS)*, Hawaii, USA, (January 2005)

Structural and Mutation Testing for SDL Specifications: A Case Study T. Sugeta, J. C. Maldonado and W. E. Wong *Proceedings of The 6th IEEE Latin-American Test Workshop (LATW)*, Salvador, Bahia, Brazil, (March 2005)

Grants Awarded and Continued: Principal Investigator

Measuring and Improving Code Coverage for Embedded Software W. E. Wong Texas Instruments, \$40,000 (10/01/2004-08/31/2005)

Improving System Quality by Effective Analysis of Defects W. E. Wong Texas Instruments, \$40,000 (10/01/2004-08/31/2005)

Effective Test Generation for Java Applications W. E. Wong Avaya Research Labs, \$30,000 (09/01/2004-05/31/2005)

Service Oriented Architecture for Converged Communication W. E. Wong Avaya Research Labs, \$45,000 (09/10/2004-10/31/2005)

A Testing Framework for Reproducible Execution and Race Condition Detection in Real-Time Embedded Systems W. E. Wong, co-PI: Y. H. Lee (Arizona State University) and Y. Lei (UT-Arlington)

NASA, \$555,000 (01/01/2005-12/31/2007)

A Comprehensive Framework for Testing and Analyzing C++ Applications (Phase I) W. E. Wong Avaya Research Labs, \$45,000 (02/01/2005-03/31/2006)

Software Product Line Architecture: A Formal Evaluation Model W. E. Wong Electronics and Telecommunications Research Institute (ETRI), \$22,500, Phase I (2005)

Weili Wu, Assistant Professor, Computer Science
B.S., Liaoning Technology University, China, 1989
M.S., University of Wisconsin, 1995
M.S., University of Minnesota, 1998
Ph.D., University of Minnesota, 2002

Articles in Refereed Journals

Protein-Protein Interaction and Group Testing in Bipartite Graphs Yingshu Li, My T. Thai, Zhen Liu and Weili Wu International Journal of Bioinformatics Research and Applications (IJBRA) **1 4** (2005) 414-419

Approximation for Minimum Multicast Route in Optical Network with Nonsplitting Nodes Longjiang Guo, Weili Wu, Feng Wang and My Thai *Journal of Combinatorial Optimization* **10 4** (2005) 391 – 394

Optimal topology control for balanced energy consumption in wireless networks Yingshu Li, Xiaoyan Cheng, and Weili Wu *Journal of Parallel Distributed Computing* **65 2** (2005) 124-131

Articles in Conference Proceedings

Energy-Efficient Target Coverage in Wireless Sensor Networks Mihaela Cardei, My T. Thai, Yingshu Li and Weili Wu Proceeding of the 24th conference of the IEEE Communications Society (INFOCOM 2005) Miami, FL: (March 13-17 2005)

Achieving Minimum Coverage Breach under Bandwidth Constraints in Wireless Sensor Networks, Meggie Cheng, Weili Wu and Lu Ruan Proceeding of the 24th conference of the IEEE Communications Society (INFOCOM 2005) Miami, FL : (March 13-17 2005

Grants Awarded and Continued: Principal Investigator

Collaborative Research: Development of Vector Space based Methods for Protein Structure Prediction Weili Wu NSF \$128,500 (7/1/2003-6/30/2006)

Supplemental Support for Collaborative Research: Development of Vector Space based Methods for Protein Structure Prediction Weili Wu NSF \$25,693 (11/1/2004-6/30/2005)

Efficient Spatial-Temporal Analysis of Environment and Public Health Related Data Weili Wu NSF (National Science Foundation) \$397,504.00 (2005-2008)

NSG: Studies in Optimizations with Applications Weili Wu NSF \$250,804.00 (2005-2008)

Collaborative Research: CT-ISG: Fault-Tolerant and Secure Infrastructure for Time Critical Embedded Systems Weili Wu NSF \$150,000.00 (2005-2008)

Internal Cost Share for Efficient Spatial-Temporal Analysis of Environment and Public Health Related Weili Wu Erik Jonsson School of Engineering and Computer Sciences at UTD \$58,455.00 (2005-2008)

Internal Cost Share for NSG: Studies in Optimizations with Applications Weili Wu Erik Jonsson School of Engineering and Computer Sciences at UTD \$51,690.00 (2005-2008)

Internal Cost Share for Collaborative Research: CT-ISG: Fault-Tolerant and Secure Infrastructure for Time Critical Embedded Systems Weili Wu Erik Jonsson School of Engineering and Computer Sciences at UTD \$4300.00 (2005-2008) Internal Fund Support for 2004 Unfunded NSF Proposal of Efficient Spatial-Temporal Analysis of Environment and Public Health Related Weili Wu

Erik Jonsson School of Engineering and Computer Sciences at UTD \$60,000.00 (2005-2007)

I-Ling Yen, Associate Professor, Computer Science

B.S., National Tsing-Hua University, 1979 M.S., University of Houston, 1985 Ph.D., University of Houston, 1992

Articles in Refereed Journals

A study of the model and algorithms for handling location dependent continuous queries
M. Gupta, M. Tu, L. Khan, F.B. Bastani and I.-L. Yen *Knowledge and Information Systems Journal (KAIS)*, Springer-Verlag, 8
(4) (November 2005) 414-437

A distributed admission control model for QoS assurance in large-scale media delivery systems Zhonghang Xia, Wei Hao, I-Ling Yen and Peng Li *IEEE Transactions on Parallel and Distributed Systems* **16** (**12**) (December 2005) 1143-1153. *IEEE Distributed Systems Online*, (November 2005)

M3-Update: a new update model for E-Commerce and web-based applications Peng Li, I-Ling Yen and Zhonghang Xia *International Journal of Computers and Their Applications*, **12 (3)** (September 2005) pp. 152-162

Automated aspect-oriented decomposition of process-control systems for ultra-high dependability assurance D. Wang, F.B. Bastani and I.-L. Yen *IEEE Transactions on Software Engineering* **31 (9)** (September 2005) 713-732

Update propagation algorithms for supporting disconnected write in mobile wireless systems with data broadcasting capability Ing-Ray Chen, Ngoc Anh Phan and I-Ling Yen *Journal of Wireless Personal Communications* **34 (3)** (August 2005) 227-253 Adaptive QoS control based on benefit optimization for video servers providing differentiated services Ing-Ray Chen, Sheng-Tun Li and I-Ling Yen *Multimedia Tools and Applications* **25** (2) (February 2005) 167-185

Articles in Conference Proceedings

Toward QoS analysis of adaptive service-oriented architecture T. Gao, H. Ma, I.-L. Yen, F.B. Bastani and W.-T. Tsai *IEEE International Workshop on Service-Oriented System Engineering*, Beijing, China, (October 21-22, 2005) 219-226

Toward a UML profile to support component-based distributed adaptive systems T. Gao, K. Cooper, H. Ma, I.-L. Yen and F.B. Bastani *International Conference on Software Engineering and Knowledge Engineering*, Taipei, Taiwan, (July 2005) 217-222

A formal foundation of code pattern based development J. Liu, F.B. Bastani and I.-L. Yen *International Conference on Software Engineering and Knowledge Engineering*, Taipei, Taiwan, (July 2005) 274-279

An adaptive multiparty protocol for secure data protection Q. Ma, I.-L. Yen, W. Hao, M. Tu and F.B. Bastani *IEEE International Conference on Parallel and Distributed Systems*, Fukuoka, Japan, (July 2005) 43-49

Meta code pattern and its refinement J. Liu, F.B. Bastani and I.-L. Yen 2005 International MultiConference in Computer Science & Computer Engineering, Las Vegas, Nevada, (June 27-30, 2005)

An Approach for designing Highly Adaptable Process-Control Systems D. Wang, F.B. Bastani, I.-L. Yen and R. Paul *IEEE International Symposium on Object-oriented Real-time Computing Systems*, Seattle, Washington, (May 2005)

Rule-base technique for component adaptation to support QoS-based reconfiguration Jia Zhou, Kendra Cooper and I-Ling Yen *IEEE International Symposium on Object-oriented Real-time Computing Systems*, Seattle, Washington, (May 2005)

On the optimal placement of secure data objects over internet M. Tu, P. Li, Q. Ma, I-L. Yen and F.B. Bastani *IEEE International Parallel and Distributed Processing Symposium*, Denver, Colorado, (April 2005)

A framework to support survivable web services Wei Li, Jiang He, Qingkai Ma I-Ling Yen, Farokh B. Bastani and Raymond Paul *IEEE International Parallel and Distributed Processing Symposium*, Denver, Colorado, (April 2005)

A model and methodology for composition QoS analysis of embedded systems

Hui Ma, Dongfeng Wang, Farokh Bastani, I-Ling Yen and Kendra Cooper *IEEE Real-Time and Embedded Technology and Applications Symposium*, San Francisco, California, (March 2005)

Empirical assessment of machine learning based software defect prediction techniques V.U.B. Challagulla, F.B. Bastani, I.-L. Yen and R. Paul *IEEE International Workshop on Object-oriented Real-time Dependable Systems*, Sedona, AZ, (February 2005) 282-303

Grants Awarded and Continued: Principal Investigator

End-to-End Dependability Assurance for Command-and-Control Systems I-Ling Yen (PI), Farokh Bastani and Jing Dong Department of Defense SPAWAR/NISTP (subcontract to Independent Engineering, Inc.) \$44,058 (May 1, 2005 - May 31, 2006)

Component-Based QoS-Driven Synthesis of Embedded Software I-Ling Yen (PI), Farokh Bastani and Kendra Cooper NASA STTR, (subcontract to IA Tech, Inc.) \$100,000 (\$28,000 for UTD) (May 1, 2005 – Aug. 31, 2006)

A Distributed Component Repository for Rapid Synthesis of Adaptive Real-Time Systems I.-L. Yen (PI), F.B. Bastani, Y. Deng, L.R. Khan and E.W. Sha National Science Foundation, \$499,866 (2001-2005)

Kang Zhang, Professor, Computer Science

B.E., Univ. of Electronic Science and Technology, China, 1982 Ph.D., University of Brighton, United Kingdom, 1990

Articles in Refereed Journals

Multimedia Layout Adaptation Through Grammatical Specifications K. Zhang, J. Kong, M.K. Qiu and G.L. Song *ACM/Springer Multimedia Systems*, Springer **10** (March 2005) 245-260

Visual Programming Support for Graph-Oriented Parallel/Distributed Processing

F. Chan, J. Cao, A.T.S. Chan and K. Zhang Software – Practice and Experience, John Wiley and Sons **35** (December 2005) 1409-1439

Articles in Conference Proceedings

Spatial Contextual Noise Removal for Post-classification Smoothing of GIS Images Y. Qian, K. Zhang and F. Qiu *Proceedings of the 20th Annual ACM Symposium on Applied Computing*, Santa Fe, USA, ACM Press: (2005) 524-528

The Role of Visualization in Effective Data Cleaning Y. Qian and K. Zhang *Proceedings of the 20th Annual ACM Symposium on Applied Computing*, Santa Fe, USA, ACM Press: (2005) 1239-1243

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George W. Fair, Professor of Interdisciplinary Studies and Dean

Erin A. Smith, Associate Professor, American Studies and Studies in Literature B.S., Michigan State University, 1991 B.A., Michigan State University, 1991 Ph.D., Duke University, 1997

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Hasan Pirkul, Professor, Management Information Systems and Dean

Mark C. Anderson, Associate Professor, Accounting B.A., University of Alberta, 1978 M.B.A., University of Alberta, 1981 M.S., University of Rochester, 1991 Ph.D., University of Florida, 1996

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Director, Center for Practice and Research in Software Management B.Tech., Indian School of Mines, India, 1988 M.Eng., Pennsylvania State University 1992 Ph.D., University of Texas, Austin, 1995

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Frank M. Bass, Professor, Marketing;

Eugene McDermott University of Texas System Chair; Director, Ph.D. Programs; Director, Morris Hite Center for Product Development and Marketing Science B.B.A., Southwestern University, 1949 M.B.A., University of Texas at Austin, 1950 Ph.D., University of Illinois, 1954

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Norris Bruce, Assistant Professor, Marketing

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Gregory G. Dess, Professor, Org. Strategy and International Management; Andrew Cecil Endowed Chair in Applied Ethics
B.I.E., Georgia Institute of Technology, 1971
M.B.A., Georgia State University, 1976
Ph.D., University of Washington, 1980

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Director, Center for International Accounting Development Cand. Econ. Netherlands School of Economics, 1951 M.Com., University of Toronto, 1953 Advanced Degree, Institute of Social Studies (The Hague), 1957 Ph.D., The Netherlands School of Economics, 1960

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 M.S.I.E., University of Wisconsin, Madison, 1969
 Ph.D., University of Wisconsin, Madison, 1972

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Varghese S. Jacob, Ashbel Smith Professor, Management Information Systems, Senior Associate Dean School of Management

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M.S., Purdue University, 1983

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Syam Menon, Associate Professor, Information Systems and Operations Management

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Kathryn E. Stecke, Ashbel Smith Professor, Operations Management

B.S., Boston State College, 1972

M.S., Purdue University, 1974

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Ph.D., Purdue University, 1981

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Alejandro Zentner, Assistant Professor, Economics

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Jung-Mo Ahn, Assistant Professor, Chemistry

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Synthesis of Proton Conducting Tungstosilicate Mesoporous Materials and Polymer Composite Membranes F. Feng, D. Coutinho, Z. Yang, J.P. Ferraris and K.J. Balkus, Jr. *Microporous Mesoporous Materials* **81** (2005) 217-234 Growth of ZSM-5 hollow spheresVia Laser Ablation C. Xiong and K.J. Balkus, Jr. *Microporous Mesoporous Materials* **86** (2005) 14-22

Electrospun Mesoporous Metal Oxides M. Macias, A. Chacko and K.J. Balkus, Jr. *Microporous Mesoporous Materials*, **86** (2005) 1-13

Fabrication of TiO₂ nanofibers from a mesoporous silica film C. Xiong and K.J. Balkus, Jr. *Chemistry of Materials*, **17** (2005) 5136-5140

TiO₂ nanofibers and core shell structures prepared using mesoporous molecular sieves as templates",C. Xiong, M. Kim and K.J. Balkus, Jr. *Small*, 2 (2005) 52-55

Reinforcement of macroscopic carbon nantube structures by polymer ntercalation: The role of polymer molecular weight and chain conformation C.J. Frizzell, M. in het Panhuis, D.H. Coutinho and K.J.Balkus, Jr. *Physical Review B*, **72** (2005) 245420-1-8

Transformation of Mesoporous Benzene Silica to Nanoporous Carbon D. Coutinho, B. Gorman, J.P. Ferraris, D.J. Yang and K.J. Balkus, Jr. *Microporous Mesoporous Materials* **91** (2006) 276-285

Microwave synthesis of ETS-4 and ETS-4 Films D. Coutinho, J.A. Losilla and K.J. Balkus Jr. *Microporous Mesopoous Mater*ials, **90** (2006) 229-236

Ray Baughman, Robert A. Welch Professor, Chemistry; Director, UTD Nanotech Institute

B.S., Carnegie-Mellon University, 1964 M.S., Carnegie-Mellon University, 1966 Ph.D., Harvard University, 1971

Articles in Refereed Journals

A Soluble and Highly Functional Polyaniline-carbon Nanotube Composite R. Sainz, A.M. Benito, M.T. Martinez, J.F. Galindo, J. Sotres, A.M. Baro, B. Corraze, O. Chauvet, A.B. Dalton, R.H. Baughman and W.K. Maser *Nanotechnology*, **16**, (2005) S150-S154 Spinning Solid and Hollow Polymer-Free Carbon Nanotube Fibers M.E. Kozlov, R.C. Capps, W.M. Sampson, V.H. Ebron, J.P. Ferraris and R.H. Baughman *Advanced Materials* **17**, (2005) 614-617

Playing Nature's Game with Artificial Muscles R.H. Baughman *Science* **308**, (2005) 63-65

Exciton Dynamics in Single Walled Carbon Nanotubes: Transient Photoinduced Dichroism and Polarized Emission C.-X. Sheng, Z.V. Vardeny, A.B. Dalton and R.H. Baughman *Physical Review* **B 71**, (2005) 125427/1-125427/12

Highly Conducting Carbon Nanotube/Polyethylenimine Composite Fibers E. Muñoz, D.-S. Suh, S. Collins, M. Selvidge, A.B. Dalton, B.G. Kim, J.M. Razal, G. Ussery, A.G. Rinzler, M.T. Martínez and R.H. Baughman *Advanced Materials* **17**, (2005) 1064-1067

Nanotube Network Transistors from Peptide-wrapped Single-Walled Carbon Nanotubes M. in het Panhuis, S. Gowrisanker, D.J. Vanesko, C.A. Mire, H. Jia, H. Xie, R.H. Baughman, I.H. Musselman, B.E. Gnade, G.R. Dieckmann and R.K. Draper *Small* **1**, (2005) 820-823

Diameter-Selective Solubilization of Single-Walled Carbon Nanotubes by Reversible Cyclic Peptides

A. Ortiz-Acevedo, H. Xie, V. Zorbas, W.M. Sampson, A.B. Dalton, R.H. Baughman, R.K. Draper, I.H. Musselman and G.R. Dieckmann *Journal of the American Chemical Society* **127**, (2005) 9512-9517

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V. Zorbas, A.L. Smith, H. Xie, A. Ortiz-Acevedo, A.B. Dalton, G.R. Dieckmann, R.K. Draper, R.H. Baughman and I.H. Musselman *Journal of the American Chemical Society* **127**, (2005)12323-12328

Carbon-Nanotube-Modified Electrodes for the Direct Bioelectrochemistry of Pseudoazurin

A. Guiseppi-Elie, S. Brahim, G. Wnek and R.H. Baughman NanoBiotechnology **1**, (2005) 83-92

Strong, Transparent, Multifunctional Carbon Nanotube Sheets

M. Zhang, S. Fang, A.A. Zakhidov, S.B. Lee, A.E. Aliev, C.D. Williams, K.R. Atkinson and R.H. Baughman *Science* **309**, (2005) 1215-1219

Ultrafast Exciton Dynamics in Isolated Single-Walled Nanotubes C.X. Sheng, Z.V. Vardeny, A.B. Dalton and R.H. Baughman *Synthetic Metals* **155**, (2005) 254-257

Retrospective: Richard E. Smalley (1943-2005) W.W. Adams and R.H. Baughman *Science* **310**, (2005) 1916

Grants Awarded and Continued: Principal Investigator

High Performance, Continuous Carbon Nanotube Fibers R.H. Baughman Texas Advanced Research Program/Advanced Technology Program \$150,000 (2004-2005)

Fuel-Powered Artificial Muscles For The Robotic Soldier R.H. Baughman DARPA/Army Robert Morris Research Center, \$750,000 (2004-2006)

3-dimensional nanoscale reinforcement architecture for advanced composite structures R.H. Baughman Air Force subcontract with 3Tex, \$260,000 (2004-2007)

Evaluation and improvement of electrical and mechanical properties of CNTs R.H. Baughman DENSO Corporation, \$150,000 through (2005-2007)

Michael C. Biewer, Associate Professor of Chemistry B.S., Ohio State University, 1990 Ph.D., Yale University, 1995

Articles in Referred Journals

Monitoring Surface Reactions Optically in a Self-Assembled Monolayer with a Photochromic Core Ming-Hui Yang and Micheal C. Biewer *Tetrahedron Letters* **46** (2005) 349-351 Solid-State Interactions in Photochromic Host-Guest Inclusion Complexes Suman Iyengar and Michael C. Biewer *Crystal Growth & Design* **5(6)** (2005) 2043-2045

Grants Awarded and Continued: Principal Investigator

Functional Photochromic Materials Michael C. Biewer Welch Foundation \$150,000 (6/1/04 - 5/31/07)

Gail A. M. Breen, Associate Professor, Molecular and Cell Biology B.Sc., University of Toronto, 1970 Ph.D., University of California, Los Angeles, 1974

Articles in Refereed Conference Proceedings

Transcriptional Regulation of the Mammalian Mitochondrial ATP Synthase α-Subunit Gene G. A. Breen, A. Alam and R. Pittman *Proceedings of the American Society for Cell Biology* San Francisco, CA: December 2005

Grants Awarded and Continued: Principal Investigator

Proteomics of the Oxidative Phosphorylation System in AD Gail A. Breen American Health Assistance Foundation; \$100,000 (4/01/05-3/30/07)

Tom H. Brikowski, Associate Professor, Geology

B.S., California Inst. of Technology, 1979 M.S., University of Oregon, 1983 Ph.D., University of Arizona, 1987

Articles in Refereed Journals

Pathline-calibrated groundwater flow models of Nile Valley aquifers, Esna, upper Egypt T. H. Brikowski and A. Faid *Journal of Hydrology* doi:10.1016/j.hydrol.(2005)10.011, 15 p.

Articles in Conference Proceedings

Electrical resistivity profiling to delineate low groundwater arsenic target

zones in the Terai, Nawalparasi, Nepal T.H. Brikowski, L.S.S. Smith and S.D. Shrestha *Geological Society of America* Abstr. w. Programs **37** (2005) 7 375

Lee A. Bulla, Jr., Professor, Molecular Biology B.S., Midwestern State University, 1965 Ph.D., Oregon State University, 1968

Articles in Refereed Journals

Cytotoxicity of *Bacillus thuringiensis* Cry1Ab toxin depends on specific binding of the toxin to the cadherin receptor BT-R1 expressed in insect cells

X. Zhang, M. Candas, N.B. Griko, L. Rose-Young and L.A. Bulla, Jr. *Cell Death Differentiation* **12** (20051407-1416

The proteomics of sickle cell disease: profiling of erythrocyte membrane proteins by 2D-DIGE and tandem mass spectrometry D.G. Kakhniashvili, N.B. Griko, L.A. Bulla, Jr. and S.R. Goodman *Exptl. Biol. Med.* 230 (2005) 787-792

Grants Awarded and Continued: Principal Investigator

Center for Biotechnology and Bioinformatics L. A. Bulla, Jr. State of Texas \$250,000 (2003-2005)

Sequencing and Comparative Genome Annotation of *Bacillus thuringiensis* L.A. Bulla, Jr. USAID/Cairo \$431,000 (2004-2006)

Molecular & Cellular Functions of PBW BT-R₂ L.A. Bulla, Jr. National Science Foundation \$60,000 (2003-2005)

James L. Carter, Associate Professor of Geosciences B.S., Texas Western College (now UTEP), 1961 Ph.D., Rice University, 1965

Authored Books

Laboratory Manual: Physical Geology, updated 12th edition

James H. Zumberge, Robert H. Rutford and James L. Carter New York: McGraw-Hill (2005) 278 p.

Pankaj K. Choudhary, Assistant Professor, Mathematical Sciences

B.S., University of Delhi, 1996 M.S., Indian Institute of Technology, 1998 Ph.D., Ohio State University, 2002

Articles in Refereed Journals

A two-stage procedure for selection and assessment of agreement of the best instrument with a gold standard P.K. Choudhary and H.N. Nagaraja *Sequential Analysis*, **24** (2005) 237-257

Assessment of agreement using intersection-union principle P.K. Choudhary and H.N. Nagaraja *Biometrical Journal*, **47** (2005) 674-681

Selecting the instrument closest to a gold standard P.K. Choudhary and H.N. Nagaraja Journal of Statistical Planning & Inference **129** (2005) 229 – 237

 Carl B. Collins, Professor of Physics; Director, Center for Quantum Electronics B.S., University of Texas at Austin, 1960 M.A., University of Texas at Austin, 1961 Ph.D., University of Texas at Austin, 1963

Articles in Refereed Journals

Nuclear resonance spectroscopy of the 31-yr isomer of Hf-178 C.B. Collins, N.C. Zoita, F. Davanloo, Y. Yoda, T. Uruga, J.M. Pouvesle and I.I. Popescu *Laser Physics Letters* **2** (2005) 162-167

The use of selected monochromatic X-rays to induce a cascade of gamma transitions from the 31-year nuclear isomer to the 4 second isomeric state of Hf-178

N.C. Zoita, F. Davanloo, C.B. Collins, J.M. Pouvesle, S. Emura, I.I. Popescu, V.I. Kirischuk, N.V. Strilchuk, T. Uruga and Y. Yoda *Journal of Physics IV France*, **127** (2005) 163-168

Ultra-Fast Flash X-ray Pulses Produced by Blumlein Devices

F. Davanloo, C.B. Collins and F.J. Agee Nuclear Instruments and Methods **B241** (2005) 276-280

Grants Awarded and Continued: Principal Investigator

Use of L and M-shell Electrons to Trigger Nuclear Spin C.B. Collins DARPA SIER Project funded through AFOSR, \$1,792,000, (2003-2005)

Renewal of Research on Triggering Nuclear Spin Isomers C.B. Collins AFOSR \$930,000 (2002-2005)

Low-Impedance Compact Modulators Capable of Generating Intense Ultra-Fast Rising Nanosecond Waveforms C.B. Collins (Co- PI: F. Davanloo) AFOSR, \$ 450,000 (2003- 2005)

Mieczyslaw K. Dabkowski, Assistant Professor, Mathematical Sciences M.A. Gdansk University, Poland, 1998 Ph.D., The George Washington University, 2003

Article in Refereed Journals

Non-Left-Orderable 3-Manifold Groups Mieczyslaw K. Dabkowski, Jozef H. Przytycki and Ataollah Togha *Canadian Mathematical Bulletin* **48** N^o1 (2005) 32-40

Santosh R. D'Mello, Professor, Molecular Neurobiology B.S., University of Bombay, 1981

M.S., University of Bombay, 1983 Ph.D., University of Pittsburgh, 1989

Edited Books

Treating Neurodegenerative Conditions through the Understanding of Neuronal Apoptosis Santosh R. D'Mello and Paul C. Chin *CNS & Neurological Disorders - Drug Targets* **4** (1) Guest Editor Santosh R. D'Mello Bentham Science Publishers (February 2005) 3-23

Articles in Refereed Journals

PAK-1 is necessary depolarization-mediated neuronal survival K. Johnson and S.R. D'Mello *Journal of Neuroscience Research* **79** (2005) 809-815

Inhibition of neuronal apoptosis by the cyclin dependent kinase inhibitor GW8510: Identification of 3' substituted indolones as a scaffold for the development of neuroprotective drugs

K. Johnson, L. Liu, N. Majdzadeh, C. Chavez, P.C. Chin, B.E. Morrison, L. Wang, J. Park, P. Chugh, H-M Chen and S.R. D'Mello *Journal of Neurochemistry* **93** (2005) 538-548

Neuroprotection by distinct survival factors involves the inhibition of Gsk3beta P.C. Chin, N. Majdzadeh and S.R. D'Mello

Molecular Brain Research 137 (2005) 193-201

Brain chemotherapy from the bench to the clinic: Targeting neuronal survival with small molecule inhibitors of apoptosis P.C. Chin and S.R. D'Mello *Frontiers in Bioscience* **10** (2005) 552 - 568

Grants Awarded and Continued: Principal Investigator

Signaling Pathways Regulating Neuronal Apoptosis Santosh R. D'Mello NIH/NINDS \$1,032,999 (2001 – 2005)

Molecular Analysis of Neurotoxin-Induced Apoptosis Santosh R. D'Mello US Army Medical Research and Material Command \$935,000 (1999 – 2006)

Neuroprotective properties of c-Raf inhibitors Santosh D'Mello NIH/NINDS \$1,550,000 (2004 – 2009)

Jeff DeJong, Associate Professor, Molecular and Cell Biology B.A., University of Missouri-Columbia, 1984 Ph.D., Pennsylvania State University, 1990

Grants Awarded and Continued: Principal Investigator

Biochemical Mechanisms of Germ Line Gene Regulation Jeff DeJong The Welch Foundation \$150,000 (June 1, 2003 to May 31, 2006)

Mechanisms of Meiotic Gene Expression in the Testis Jeff DeJong National Institutes of Health \$1,293,546 (June 1, 2003 to May 31, 2008)

Patents Awarded

B1 Transcription factors related to TF II A Jeff DeJong U. S. Patent No. *6,953,834* (October 11, 2005)

Gregg R. Dieckmann, Associate Professor, Chemistry

B.A., DePauw University, 1988 M.S., University of Michigan, 1990 Ph.D., University of Michigan, 1995

Articles in Refereed Journals

Importance of Aromatic Content for Peptides/Single-walled Carbon Nanotube Interactions

V. Zorbas, A. L. Smith, A. Ortiz-Acevedo, H. Xie, A. B. Dalton, G. R. Dieckmann, R. K. Draper, R. H. Baughman and I. H. Musselman *Journal of the American Chemical Society* **127** (**35**) (2005) 12323-12328

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Modulation of Zinc- and Cobalt-binding Affinities through Changes in the Stability of the Zinc Ribbon Protein L36 W. Kou, H. S. Kolla, A. Ortiz-Acevedo, D. C. Haines, M. Junker and

G. R. Dieckmann Journal of Biological Inorganic Chemistry **10** (2005) 167-180

Peptide Cross-linking Modulated Stability and Assembly of Peptide-wrapped Single-walled Carbon Nanotubes
H. Xie, A. Ortiz-Acevedo, R. H. Baughman, R. K. Draper,
I. H. Musselman, A. B. Dalton and G. R. Dieckmann *Journal of Materials Chemistry* 15 (2005) 1734-1741

Grants Awarded and Continued: Principal Investigator

Investigation of the Factors Affecting Reactivity of Thiolate-rich Zn(II) Sites in Proteins Gregg R. Dieckmann The American Chemical Society: The Petroleum Research Fund (type AC) \$80,000 (January 1, 2004–August 31, 2006)

Peptide-coated Nanotubes: Toxicity and Targeted Cell Ablation A. B. Dalton (PI) G. R. Dieckmann (PI) and J. Coleman Human Frontier Science Program: Young investigators' Grant \$1,050,000 (2005-2008)

Rockford K. Draper, Professor, Molecular and Cell Biology B.A., University of Washington, 1968 Ph.D., University of California, Los Angeles, 1974

Articles in Refereed Journals

p97 is in a Complex with Cholera Toxin and Influences the Transport of Cholera Toxin and Related Toxins to the CytoplasmR. J. AbuJarour, S. Dalal, P. I. Hanson and R. K. Draper*Journal of Biological Chemistry* 280 (2005) 15865-15871

Nanotube Network Transistors from Individual Peptide-wrapped Single-walled Carbon Nanotubes
M. in het Panhuis, S. Gowrisanker, D. J. Vanesko, C. A. Mire, H. Jia,
H. Xie, R. H. Baughman, I. H. Musselman, B. E. Gnade, G. R. Dieckmann and Rockford K. Draper
Small 1 (2005) 820-823

Peptide Cross-linking Modulated Stability and Assembly of Peptide-wrapped Single-walled Carbon NanotubesH. Xie, A. Ortiz-Acevedo, R. H. Baughman, R. K. Draper,I. H. Musselman, A. B. Dalton and G. R. Dieckmann

Journal of Materials Chemistry 15 (2005) 1734-1741

Diameter-Selective Solubilization of Single-walled Carbon Nanotubes by Reversible Cyclic Peptides A. Ortiz-Acevedo, H. Xie, V. Zorbas, W.M. Sampson, A.B. Dalton, R.H. Baughman, R.K. Draper, I.H. Musselman and Gregg R. Dieckmann *Journal of the American Chemical Society* **127** (2005) 9512-9517

Importance of Aromatic Content for Peptides/Single-walled Carbon Nanotube Interactions
V. Zorbas, A.L. Smith, A. Ortiz-Acevedo, H. Xie, A.B. Dalton,
G.R. Dieckmann, R.K. Draper, R.H. Baughman and I.H. Musselman *Journal of the American Chemical Society* **127** (35) (2005) 12323-12328

Grants Awarded and Continued: Principal Investigator

Structure and Function of Coatomer R.K. Draper National Science Foundation \$231,000 (2001-2005)

Acquisition and Operation of a Bio-nanotechnology Facility Dr. R.K. Draper The Von Ehr Foundation and UT Dallas, \$1,000,000 (01/01/05-12/31/09)

Bionanosciences at UTD R.K. Draper Private Gift Account, \$17,500 (2005)

Gregory D. Earle, Professor, Physics

B.S., Purdue University, 1981 M.S., Purdue University, 1983 Ph.D., Cornell University, 1988

Articles in Refereed Journals

Sequential Observations of the Local Neutral Wind Field Structure Associated with E Region Plasma Layers R.L. Bishop, G.D. Earle, M.F. Larsen, C.M. Swenson, C.G. Carlson, P.A. Roddy, C. Fish and T.W. Bullett *Journal of Geophysical Research*, **110** (2005) doi:10.1029/2004JA010686 Tungsten-Rhenium Filament Lifetime Variability in Low Pressure Oxygen Environments

G.D. Earle, R. Medikonduri, N. Rajagopal, V. Narayanan and P.A. Roddy *IEEE Transactions on Plasma Sciences*, **33** (2005) 1736-1738

Electron Confinement on Magnetic Field Lines M.J. Goeckner, G.D. Earle, L.J. Overzet and J.C. Maynard *IEEE Transactions on Plasma Sciences*, **33** (2005) 436-439

Grants Awarded and Continued: Principal Investigator

Optimization of a Ram Wind Sensor for Planetary Thermospheric Studies G. D. Earle Submitted to NASA \$75,000 (2005-2008)

CEDAR: Atmosphere/Ionosphere Coupling in the Creation of Topside Spread Echoes G. D. Earle NSF, \$221,000 (2005-2008)

Investigation of Mid-Latitude Spread F Associated with Terrestrial Weather Systems G. D. Earle NASA, \$1,4000,000 (2005-2008)

Ervin J. Fenyves, Professor, Physics

M.S., Roland Eotvos University, Budapest, 1946 Ph.D., Roland Eotvos University, Budapest, 1950 Doctor of the Physical Sciences, Hungarian Academy of Sciences, Budapest, 1960

Articles in Conference Proceedings

Very Sensitive Large Area Neutron Detector for Nuclear Weapon Material Surveillance D. Cline, K. Lee, E.J. Fenyves and B. Burkart

Homeland Security Department Conference, Boston 2005

John F. Ferguson, Associate Professor, Geosciences,

B.S., Wofford College, 1973 M.S., University of North Carolina, 1975

Ph.D., Southern Methodist University, 1981

Articles in Refereed Journals

Real-time data acquisition and quality control for gravity surveys T. Chen, J.F. Ferguson, C.L.V. Aiken and J. Brady *The Leading Edge* **24** (2005) 702-704

Articles in Conference Proceedings

An archaeological investigation of San Marcos Pueblo New Mexico, USA J. Hodges, J.F. Ferguson and L. Pellerin *SAGEEP 2005 Proceedings and Annual Meeting* Atlanta, GA (April 2005)

Use of absolute gravity measurements to monitor groundwater in the Espanola Basin, New Mexico A.H. Cogbill, J.F. Ferguson and E.H. Keating *AGU Spring Meeting* New Orleans, LA (May 2005)

Investigation of archaeological sites by the SAGE field course J.F. Ferguson, L. Pellerin, J. Nisengaard, W.S. Baldridge and G.R. Jiracek *SEG Annual Meeting* Houston, TX (November 2005)

SAGE (Summer of Applied Geophysics Experience): Learning geophysicsby doing geophysicsG.R. Jiracek, S. Biehler, W.S. Baldridge, L. Braile, J.F. Ferguson,B. Gilpin and L. Pellerin2005 AGU Fall Meeting San Francisco, CA (December 2005)

Grants Awarded and Continued: Principal Investigator

Reservoir Monitoring by Micro-Gravity Techniques John F. Ferguson BP Exploration (Alaska), Inc. \$20,000 (January 2004-2005)

Estimation of Aquifer Recharge in the Espanola Basin Using Time-Lapse Gravity Surveys John F. Ferguson Los Alamos National Laboratory \$60,000 (January 2004-2005)

John P. Ferraris, Professor of Chemistry,

Cecil H. and Ida Green Chair in Systems Biology Science B.A., St. Michael's College, 1969 M.A., Johns Hopkins University, 1971 Ph.D., Johns Hopkins University, 1973

Articles in Refereed Journals

Multilayer Encapsulation of Plastic Photovoltaic Devices P. Madakasira, K. Inoue, R. Ulbricht, S. B. Lee, M. Zhou, J. P. Ferraris and A. A. Zakhidov *Synthetic Metals* **155 (2)** (2005) 332-335

Electrospun Mesoporous Metal Oxide Fibers M. Minedys, A. Chacko, J.P. Ferraris and K. J. Balkus, Jr. *Microporous and Mesoporous Materials* **86** (1-3) (2005) 1-13

Single-molecule Studies of Electronic Energy Transfer in a Diblock Conjugated Polymer J.K. Grey, D.Y. Kim, Y.J. Lee, J.J. Gutierrez, N. Luong, J.P. Ferraris and P.F. Barbara *Angewandte Chemie, Int. Ed.* **44** (**38**) (2005) 6207-6210

Temperature and Time Dependence of Heat Treatment of RR-P3HT/PCBM Solar Cell K. Inoue, R. Ulbricht, P.C. Madakasira, W.M. Sampson, S.B. Lee, J.J. Gutierrez, J.P. Ferraris and A.A. Zakhidov *Synthetic Metals* **154** (**1-3**) (2005) 41-44

Proton Conducting Polyaniline Molecular Sieve Composites D. Coutinho, Z. Zhang, J.P. Ferraris and K.J. Balkus, Jr. *Microporous and Mesoporous Materials* **81** (1-3) (2005) 321-332

Synthesis of Proton Conducting Tungstosilicate Mesoporous Materials and Polymer Composite Membranes F. Feng, Z. Yang, D. H. Coutinho, J.P. Ferraris and K.J. Balkus, Jr. *Microporous Mesoporous Materials* **81** (1-3) (2005) 217-234

Spinning Solid and Hollow Polymer-free Carbon Nanotube Fibers M.E. Kozlov, R.C. Capps, W.M. Sampson, V.H. Ebron, J.P. Ferraris and R.H. Baughman *Advanced Materials* **17** (**5**) (2005) 614-617

Apparent Vibrational Side Bands in pConjugated Systems: The Case of Distyrylbenzene C.C. Wu, E. Ehrenfreund, J.J. Gitierrez, J.P. Ferraris and Z.V. Vardeny *Physical Review B: Condensed Matter and Materials Physics* **71** (8) (2005) 081201/1-081201/4

Articles in Conference Proceedings

Cathodoluminescence and Electroluminescence from Multi-layered Organic Structures Induced by Field Electron Emission from Carbon Nanotubes

A.A. Kuznetzov, A. Zahkidov, R. Ovalle, R. Nanjundaswami,
C. Williams, M. Zhang, S.B. Lee, J.P. Ferraris and A.A. Zakhidov *Proceedings of SPIE-The International Society for Optical Engineering* 5937 (Organic Light-Emitting Materials and Devices IX) (2005) 593720/1-593720/8

High Efficiency P3HT/PCBM Solar Cell
K. Inoue, R. Ulbricht, P.C. Madakasira, M. Zhou, S.B. Lee, J.P. Ferraris and A.A. Zakhidov *Mater. Res. Soc. Symp. Proceedings* 836 (Materials for Photovoltaics), (2005) 69-74

Conjugated Polymer Infiltrated Silica Opals and the Effect of Nanoconfinement on the Luminescent Spectra B. Jarvis, C.L. Gilleland, J.J. Gutierrez, J.W. Stadler, J. Gillespe,

M. Sampson, A. Dalton, J.P. Ferraris, R. Glosser and P.B. Landon *Proceedings of SPIE-The International Society for Optical Engineering* **5929** (Physical Chemisry of Interfaces and Nanomaterials IV), (2005) 592917/1-5929170/10

Grants Awarded and Continued: Principal Investigator

SPRING NanoEnergetics Hub at UTD John P. Ferraris AFOSR \$2,000,000 (2005)

Yuri Gartstein, Associate Professor, Physics

Ph.D., USSR Academy of Sciences, Inst. for Spectroscopy, Troitsk-Moscow, 1988

Articles in Refereed Journals

The excitonic ground state of the half-filled Peierls insulator M.J. Rice and Yu.N. Gartstein *Journal of Physics: Condensed Matter* **17** (2005) 4615–4620

Robert Glosser, Professor, Physics

B.S., Massachusetts Inst. of Technology, 1959 M.S., University of Chicago, 1962 Ph.D., University of Chicago, 1967

Articles in Refereed Journals

Effect of modulation duty cycle on the amplitude of photoreflectance Esam Al-Arfaj, R. Glosser, K. Alavi and E.A. Beam III *Canadian Journal of Physics* **83** (2005) 1029

Self-assembly of colloidal silica into opals with large ordered single crystals Preston B. Landon, Cody Gilleland, Brandon Jarvis, Brian D. Waters, Kanzan Inoue and R. Glosser *Colloids and Surfaces A: Physicochem. Eng. Aspects.* **259** (2005) 31

Juan E. González, Associate Professor of Molecular and Cellular Biology B.S., Michigan State University, 1985 Ph.D., University of California, Los Angeles, 1991

Articles in Refereed Journals

Quorum Sensing in Halophilic Bacteria: Detection of *N*-Acyl-Homoserine Lactones in Exopolysaccharide-Producing *Halomonas* species I. Llamas-Company, V. Bejar, M.J. Martinez-Canovas and J.E. González *Extremophiles* **10** (2005) 17-26

Host-Plant Interference in *Sinorhizobium meliloti* Quorum Sensing. N. Keshavan and J.E. González *Journal of Bacteriology* **187** (2005) 8427-8436

Articles In Edited Volumes

Quorum Sensing J. E. González *McGraw-Hill Yearbook of Science & Technology* (2005) 37-45

Grants Awarded and Continued: Principal Investigator

Role of Exopolysaccharides in *Sinorhizobium meliloti*/Alfalfa Symbiosis J.E. González National Science Foundation \$685,000 (2002-2006)

Quorum Sensing in Sinorhizobium meliloti Juan E. González National Institutes of Health (1R01GM069925) \$1,495,000 (07/1/05 to6/30/10)

Role of Exopolysaccharides in Sinorhizobium meliloti/Alfalfa Symbiosis Juan E. González National Science Foundation (MCB-0517162) \$580,000 (8/1/05 to 7/31/08)

Summer Research Undergraduate Experiences Juan E. González National Science Foundation (MCB-0212537) Supplement \$10,000 (5/1/05 to 8/31/05)

Steven R. Goodman, C.L. and Amelia A. Lundell Professor of Life Sciences, Biochemistry; Director, Center for Sickle Cell Disease Research B.S., State University of New York, Stony Brook, 1971 Ph.D., Saint Louis University Medical School, 1976

Articles in Refereed Journals

Spectrin and Ubiquitination: A Review J. Hsu and S.R. Goodman *Cellular and Molecular Biology* **51** (2005) OL801-OL807

Ubiquitination of Red Blood Cell α -Spectrin Does Not Effect Heterodimer Formation

M.H. Riahi, D.G. Kakhniashvili, and S.R. Goodman American Journal of Hematology **78** (2005) 281-287

Spectrin's E2/E3 Ubiquitin Conjugating/Ligating Activity is Diminished in Sickle Cells T.L. Chang, D.G. Kakhniashvili and S.R. Goodman

American Journal of Hematology, 79 (2005) 89-96

The Mouse Anterior Pituitary Gland: Analysis by Ion Trap Mass Spectrometry C.A. Blake, D.G. Kakhniashvili and S.R. Goodman *Neuroendocrinology*, **81** (2005) 229-243

Essential Role of a Ca2+ Selective, Store Operated Current (ISOC) in Endothelial Cell Permeability. Determination of the Vascular Leak Site S. Wu, E. Cioffi, D. Alvarez, S. Sayner, H. Chen, D. Cioffi, J. King, J. Creighton, M. Townsley, S.R. Goodman and T. Stevens *Circulation Research* **96** (2005) 856-863 Erythrocyte Spectrin's Chimeric E2/E3 Ubiquitin Conjugating/Ligating Activity J. Hsu, W.E. Zimmer and S.R. Goodman *Cellular and Molecular Biology* **51** (2005) 187-193

The Proteomics of Sickle Cell Disease: Profiling of Erythrocyte Membrane Proteins by 2D-DIGE and Tandem Mass Spectrometry D.G. Kakhniashvili, N.B. Griko, L.A. Bulla Jr. and S.R. Goodman *Experimental Biology and Medicine* **230** (2005) 787-792

Activation of the Endothelial Store-Operated Isoc Ca2+ Channel Requires Activation of Protein 4.1 with TRPC4 D.L. Cioffi, S. Wu, M. Alexeyev, S.R. Goodman, M.X. Zhu and T. Stevens *Circulation Research* **197** (2005) 1164-1170

Articles in Conference Proceedings

Erythrocyte Spectrin is a Chimeric E2/E3 Ubiquitin Conjugating/Ligating Enzyme and the Impact of this Activity on Sickle Cell Disease Y.J. Hsu and S.R. Goodman *National Sickle Cell Disease Program* (2005)136

Proteomic Analysis of Changes in Normal Versus Sickle Red Blood Cell Membrane Proteins. D.G. Kakhniashvili, N.B. Griko, L.E. Bulla Jr. and S.R. Goodman *National Sickle Cell Disease Program* (2005) 129

The Endothelial ISOC Channel is Gated by Interaction of Protein 4.1 with TRPC4 D.L. Cioffi, M. Alexeyev, S. Wu, M.X. Zhu, S.R. Goodman and T. Stevens *The FASEB Journal* (2005) A694.2

The Discovery of Proteasomal Subunits in Human Erythrocytes: Relationship to Sickle Cell Disease S.N. Neelam, D.G. Kakhniashvili and S.R. Goodman *National Sickle Cell Disease program* (2005)

Grants Awarded and Continued: Principal Investigator

Disregulation of the Sickle Cell Skeleton S. R. Goodman NIH Grant HL070588 Project 1 \$1,110,000 (4/1/2003-3/31/2008) Nobel Round-table Discussion on the Impact of Large Interdisciplinary & Inter-institutional Consortia on Conflict of Interest & Scientific Misconduct Dr. S.R. Goodman ORI-AAMC Grant \$10,000 (TC) (June 1, 2005 – January 22, 2006)

Warren J. Goux, Associate Professor of Chemistry B.A., University of Southern California, 1971 Ph.D., University of California, Santa Barbara, 1977

Articles in Refereed Journals

Chemical characterization of the immunomodulating polysaccharide of Aloe vera L Jimmy Tai-Nin Chow, David A.Williamson, Kenneth M.Yates and Warren J.Goux *Carbohydrate Research* **340** (2005) 1131-1142

Articles in Conference Proceedings

Binding Characteristics of a Peptide-Based MRI Contrast Agent for the Detection of Alzheimer Disease J. O'Neal, V.i D. Shanmuganandam W.J. Goux *Alzheimer's Association International Conference on Prevention of Dementia: Early Diagnosis and Intervention* (June 18-21, 2005)

Grants Awarded and Continued: Principal Investigator

Profiling of Aloe Vera products W.J. Goux International Aloe Science Council \$8,415 (8/04-7/06)

Donald M. Gray, Professor, Molecular and Cell Biology B.S., Susquehanna University, 1960 M.S., Yale University, 1963 Ph.D., Yale University, 1967

Grants Awarded and Continued: Principal Investigator

DNA Structures that Bind ssDNA-Binding Proteins Donald M. Gray Robert A. Welch Foundation Grant \$150,000 (June 1, 20004 - May 31, 2007)

Patents

Next-Nearest-Neighbor Sequence Determinants of Antisense DNA Donald M. Gray US Patent No. *6,957,148* (October 18, 2005)

Donovan C. Haines, Assistant Professor, Chemistry B.S., Wichita State University, 1993

Ph.D., Wichita State University, 1998

Articles in Refereed Journals

Modulation of Zinc- and Cobalt-Binding Affinities through Changes in the Stability of the Zinc Ribbon Protein L36 W. Kou, H.S. Kolla, A. Ortiz-Acevedo, D.C. Haines, M. Junker, and G.R. Dieckmann, G.R. *Journal of Biological Inorganic Chemistry* **10** (2005) 167-80

L-Canavanine Made by Alfalfa Interferes with Quorum Sensing in *Sinorhizobium meliloti* N.D. Keshavan, P.K. Chowdhary, D.C. Haines, and J.E. Gonzalez *Journal of Bacteriology* **187** (2005) 8427-36

Grants Awarded and Continued: Principal Investigator

Engineering an Efficient Cholesterol Hydroxylase from a Highly Active Fatty Acid Hydroxylase, CYP102A1 D.C. Haines Welch Foundation \$150,000 (2005-2008)

Ernest M. Hannig, Associate Professor, Molecular and Cell Biology

B.S., Seton Hall University, 1976 M.S., Seton Hall University, 1979 Ph.D. Rutgers University, 1985

Articles in Refereed Journals

eIF5 is critical for integrity of scanning preinitiation complex and accurate control of GCN4 translation C. R. Singh, C. Curtis, Y. Yamamoto, N. S. Hall, D. S. Kruse, H. He, E.M. Hannig, and K. Asano Molecular Cell Biology **25** (2005) 5480 – 5491

The eIF5 AA-box domain has two distinct interfaces for multifactor assembly and scanning Y. Yamamoto, C. R. Singh, A. Marintchev, N. S. Hall, E. M. Hannig, G. Wagner, and K. Asano *Proceedings of the National Academy of Science USA* **102** (2005) 16164-16169

Roderick A. Heelis, Professor, Physics;

Green Honors Endowed Chair of Physics; Director, William B. Hanson Center for Space Sciences B.S., University of Sheffield, 1969 Ph.D., University of Sheffield, 1973

Articles in Refereed Journals

Comparison of Topside equatorial Parameters Derived from DMSP, Jicamarca , and the SAMI2 Model Sarita Venkatraman, R.A. Heelis and D.L. Hysell *Journal of Geophysical Research* **110** A01307, doi:10.1029/2004JA010613 (2005)

Seasonal and Longitudinal Variation of Large-Scale Topside Equatorial Plasma Depletions M.A. Hei, R.A. Heelis and J.P. McClure *Journal of Geophysical Research* **110** A12315, doi:10.1029/2005JA011153 (2005)

Characteristics of ion velocity Structure at High Latitudes during Steady Southward IMF E.S. Johnson and R.A. Heelis *Journal of Geophysical Research* **110** A12301, doi:10.1029/2005JA011130, (2005)

Theoretical study of the low and middle latitude ionospheric electron density enhancement during the October, 2003 superstorm: Relative importance of the neutral wind and the electric field C.H. Lin, A.D. Richmond, R.A. Heelis, G.J. Bailey, G. Lu, J.Y. Liu, H.C. Yeh and S.-Y. Su *Journal of Geophysical Research* **110**, A12312 doi:10.1029/2005JA011304, (2005)

John H. Hoffman, Professor of Physics

B.S., St. Mary's College, 1951 M.S., University of Minnesota, 1954 Ph.D., University of Minnesota, 1958

Grants Awarded and Continued: Principal Investigator

Mars Scout Phoenix Proposal Entitled: Phoenix Thermal Evolved Gas Analyzer Mass Spectrometer, Mission to Mars for 2007 Launch Opportunity John H. Hoffman Jet Propulsion Lab through University of Arizona \$4,399,200 (2003-2005)

Tether Electrodynamics Spin-up and Survivability Experiment John H. Hoffman (TESSX) NASA-STTR and Orbital Technologies Corp \$139,000 (2004-2005)

M. Ali Hooshyar, Professor, Mathematical Sciences B.S., Indiana University, 1964

Ph.D., Indiana University, 1970

Authored Book

Nuclear Fission and Cluster Radioactivity: An Energy-Density Functional Approach M.A. Hooshyar, I. Reichstein and F.B. Malik Springer-Verlag, New York (2005) 200 p.

Mustapha Ishak-Boushaki, Assistant Professor, Physics

B.A., University of Quebec, 1994 B.S., University of Montreal, 1998 Ph.D., Queen's University, 2002

Articles in Refereed Journals

Probing decisive answers to dark energy questions from cosmic complementarity and lensing tomography Mustapha Ishak-Boushaki *Monthly Notices of the Royal Astronomical Society* **363** 2 (2005) 469-478 Spectroscopic source redshifts and parameter constraints from weak lensing and CMB Mustapha Ishak-Boushaki and Christopher M. Hirata *Physical Review D* **71** (2005) 023002

Dynamical dark energy: Current constraints and forecast Amol Upadhye, Mustapha Ishak-Boushaki, Paul J. Steinhardt *Physical Review D* 72 (2005) 063501

Joseph M. Izen, Professor, Physics

B.S., Cooper Union, 1977 A.M., Harvard University, 1978 Ph.D., Harvard University, 1982

Articles in Refereed Journals

Search for the W-Exchange Decays $B^0 \rightarrow D_s^{*-} D_s^{*+}$ (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 111101 http://link.aps.org/abstract/PRD/V72/E111101

Measurement of the Branching Ratios $Gamma(D(S)^{+} ---> D(S)^{+} Pi0) / Gamma(D(S)^{+} ---> D(S)^{+} Gamma) and <math>Gamma(D^{*}0 ---> D0 Pi0) / Gamma(D^{*}0 ---> D0 Gamma)$ (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 091101 http://link.aps.org/abstract/PRD/V72/E091101

Search for Decays of B0 ---> E+ E-, B0 ---> Mu+ Mu-, B0 ---> E+- Mu+ (BaBar Collaboration) B. Aubert *Physical Review Letters* **94**, (2005) 221803 http://link.aps.org/abstract/PRL/V94/P221803

Measurements of the B ---> X(S Gamma) Branching Fraction and Photon Spectrum From a Sum of Exclusive Final States (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 052004 http://link.aps.org/abstract/PRD/V72/E052004

A Study of B ---> C and B ---> U Interference in the Decay B- ---> [K+ Pi-](D) K*-(BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 071104 http://link.aps.org/abstract/PRD/V72/E071104

Measurement of the Time-Dependent CP-Violating Asymmetry in B0 ---> K0(S) Pi0 Gamma Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 051103 http://link.aps.org/abstract/PRD/V72/E051103

Dalitz Plot Analysis of D0 ---> Anti-K0 K+ K-(BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 052008 http://link.aps.org/abstract/PRD/V72/E052008

An Amplitude Analysis of the Decay B+- ---> Pi+- Pi+- Pi+-(BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 052002 http://link.aps.org/abstract/PRD/V72/E052002

Evidence for B+ ---> Anti-K0 K+ and B0 ---> K0 Anti-K0, and Measurement of the Branching Fraction and Search for Direct CP Violation in B+ ---> K0 Pi+ (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 221801 http://link.aps.org/abstract/PRL/V95/P221801

Measurement of the B+ ---> P Anti-P K+ Branching Fraction and Study of the Decay Dynamics (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 051101 http://link.aps.org/abstract/PRD/V72/E051101

A Precision Measurement of the Lambda+(C) Baryon Mass (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 052006 http://link.aps.org/abstract/PRD/V72/E052006

Dalitz-Plot Analysis of the Decays B+- ---> K+- Pi-+ Pi+-(BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 072003 http://link.aps.org/abstract/PRD/V72/E072003

Study of B ---> Pi L Nu and B ---> Rho L Nu Decays and Determination of $|V_{ub}|$ (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 051102 http://link.aps.org/abstract/PRD/V72/E051102

Measurement of CP Observables for the Decays B+- ---> D0(CP) K*+-(BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 071103 http://link.aps.org/abstract/PRD/V72/E071103

Measurement of Time-Dependent CP Asymmetries and the CP-Odd Fraction in the Decay B0 ---> D*+ D*-(BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 151804 http://link.aps.org/abstract/PRL/V95/P151804 Observation of a Broad Structure in the Pi+ Pi- J / Psi Mass Spectrum around 4.26-Gev/C**2 (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 142001 http://link.aps.org/abstract/PRL/V95/P142001

Search for the Rare Decay Anti-B0 ---> D*0 Gamma (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 051106 http://link.aps.org/abstract/PRD/V72/E051106

Search for Lepton-Flavor and Lepton-Number Violation in the Decay Tau- ---> L-+ H+- H'-(BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 191801 http://link.aps.org/abstract/PRL/V95/P191801

Measurement of Double Charmonium Production in E+ E- Annihilations at $S^{**}(1/2) = 10.6$ -GeV (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 031101 http://link.aps.org/abstract/PRD/V72/E031101

Determination of |Vub| From Measurements of the Electron and Neutrino Momenta in Inclusive Semileptonic B Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 111801 http://link.aps.org/abstract/PRL/V95/P111801

Search for the Decay Tau- to 4pi- 3pi+ (Pi0) Nu(Tau) (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 012003 http://link.aps.org/abstract/PRD/V72/E012003 Search for the Rare Decays B+ ---> D(*)+ K0(S) (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 011102 http://link.aps.org/abstract/PRD/V72/E011102

Measurement of Time-Dependent CP Asymmetries in B0 ---> D(*)D Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 131802 http://link.aps.org/abstract/PRL/V95/P131802

Measurement of the Branching Fraction and Decay Rate Asymmetry of B----> D(Pi+ Pi= Pi)) K-. (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 071102 http://link.aps.org/abstract/PRD/V72/E071102

Search for B ---> U Transitions in B- and D0 K- and B- ---> D*0 K-(BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 032004 http://link.aps.org/abstract/PRD/V72/E032004

Measurement of Gamma in B-+ ---> D(*) K-+ Decays with a Dalitz Analysis of D ---> K0(S) Pi- Pi+ (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 121802 http://link.aps.org/abstract/PRL/V95/P121802

Measurement of Time-Dependent CP-Violating Asymmetries and Constraints on Sin(2beta + Gamma) with Partial Reconstruction of B ---> D*-+ Pi+- Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 112003 http://link.aps.org/abstract/PRD/V71/E112003

Production and Decay of Xi(C)0 at BaBar (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 142003 http://link.aps.org/abstract/PRL/V95/P142003

Evidence for the Decay B+- ---> K*+- Pi0 (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 111101 http://link.aps.org/abstract/PRD/V71/E111101 Measurement of the Branching Fraction of Upsilon(4s) ---> B0 Anti-B0 (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 042001 http://link.aps.org/abstract/PRL/V95/P042001

Improved Measurement of the Ckm Angle Alpha Using B0(Anti-B0) ---> Rho+ Rho- Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 041805 http://link.aps.org/abstract/PRL/V95/P041805

Measurement of Branching Fractions and Charge Asymmetries in B+ Decays to Eta Pi+, Etak+, Eta Rho+ and Eta-Prime Pi+, and Search for B0 Decays to Eta K0 and Eta Omega (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 131803 http://link.aps.org/abstract/PRL/V95/P131803

Search for B ---> J/Psi D Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 091103 http://link.aps.org/abstract/PRD/V71/E091103

Measurement of the Branching Fraction and the CP-Violating Asymmetry for the Decay B0 ---> K0(S) Pi0 (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 111102 http://link.aps.org/abstract/PRD/V71/E111102

Measurement of the B0 ---> D*- D(S)*+ and D(S)+ ---> Phi Pi+ Branching Fractions (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 091104 http://link.aps.org/abstract/PRD/V71/E091104

Search for Lepton Flavor Violation in the Decay Tau+- ---> Mu+- Gamma (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 041802 http://link.aps.org/abstract/PRL/V95/P041802

The E+ E- ---> Pi+ Pi- Pi+ Pi-, K+ K- Pi+ Pi-, and K+ K- K+ K- Cross Sections at Center-of-Mass Energies 0.5-Gev to 4.5-Gev Measured with Initial-State Radiation (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 052001 http://link.aps.org/abstract/PRD/V71/E052001

Measurement of CP Asymmetries in B0 ---> Phi K0 and B0 -> K+ K-K0(S) Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 091102 http://link.aps.org/abstract/PRD/V71/E091102

Measurements of Branching Fractions and Time-Dependent CP-Violating Asymmetries in B ---> Eta-Prime K Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **94**, (2005) 191802 http://link.aps.org/abstract/PRL/V94/P191802

A Search for CP Violation and a Measurement of the Relative Branching Fraction in D+ ---> K- K+ Pi+ Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 091101 http://link.aps.org/abstract/PRD/V71/E091101

Improved Measurements of CP-Violating Asymmetries in $B^0 \rightarrow \pi^+\pi^-$ Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 151803 http://link.aps.org/abstract/PRL/V95/E151803

Limit on the $B^0 \rightarrow \rho^0 \rho^0$ Branching Fraction and Implications for the CKM angle alpha (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **94**, (2005) 131801 http://link.aps.org/abstract/PRL/V94/E131801

Search for Strange-Pentaquark Production in e^+e^- Annihilation at $\sqrt{s} = 10.58$ GeV (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 042002 http://link.aps.org/abstract/PRL/V95/E042002

Search for Factorization-Suppressed $B \rightarrow \chi_c K^*$ Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **94**, (2005) 171801 http://link.aps.org/abstract/PRL/V94/E171801 Search for the Radiative Decay $B \rightarrow \phi \gamma$ (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 091103 http://link.aps.org/abstract/PRD/V72/E091103

Measurement of Branching Fractions and Charge Asymmetries for Exclusive *B* Decays to Charmonium (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **94**, (2005) 141801 http://link.aps.org/abstract/PRL/V94/E141801

Search for a Charged Partner of the X(3872) in the *B* Meson Decay $B \rightarrow X^-K$, $X \rightarrow J/\psi\pi^-\pi^0$ (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 031501 http://link.aps.org/abstract/PRD/V71/E031501

Branching Fractions and CP Asymmetries in $B^0 \to \pi^0 \pi^0$, $B^+ \to \pi^+ \pi^0$ and $B^+ \to K^+ \pi^0$ Decays and Isospin Analysis of the $B \to \pi \pi$ System (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **94**, (2005) 181802 http://link.aps.org/abstract/PRL/V94/E181802

A Search for CP Violation and a Measurement of the Branching Ratio in $D^+ \rightarrow K^+ K^- \pi^+$ Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 091101 http://link.aps.org/abstract/PRD/V71/E091101

Measurement of Branching Fraction and Dalitz Distribution for $B^0 \rightarrow D^{*\pm} K^- \pi^{\mp}$ decays (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 171802 http://link.aps.org/abstract/PRL/V95/E171802

Measurements of B meson decays to ωK^* and $\omega \rho$ (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 031103 http://link.aps.org/abstract/PRD/V71/E031103

Improved Measurement of CP Asymmetries in $B^0 \rightarrow (c\bar{c})K^0$ Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **94**, (2005) 161803 http://link.aps.org/abstract/PRL/V94/E161803

A search for the decay $B^+ \rightarrow K^+ \nu \overline{\nu}$ (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **94**, (2005) 101801 http://link.aps.org/abstract/PRL/V94/E101801

Search for $B^+ \rightarrow \rho^+ \gamma$, $B^0 \rightarrow \rho^0 \gamma$, and $B^0 \rightarrow \omega \gamma$ (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **94**, (2005) 011801 http://link.aps.org/abstract/PRL/V94/P011801

Ambiguity-Free Measurement of cos2beta: Time-Integrated and Time-Dependent Angular Analyses of B-->J/Psi K pi (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 032005 http://link.aps.org/abstract/PRD/V71/E032005

Study of the τ^- to $3h^-2h^+\nu$ decay (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 072001 http://link.aps.org/abstract/PRD/V72/E072001

Measurement of the Ratio $Br(B^- \rightarrow D^{*0}K^-)/Br(B^- \rightarrow D^{*0}\pi^-)$ and of the CP Asymmetry of $B^- \rightarrow D^{*0}(CP+)K^-$ Decays (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 031102 http://link.aps.org/abstract/PRD/V71/E031102

Search for the Rare Leptonic Decay $B^- \rightarrow \tau^- \overline{\nu}_{\tau}$ (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **95**, (2005) 041804 http://link.aps.org/abstract/PRL/V95/E041804

Measurement of the $\overline{B}^0 \rightarrow D^{*+} \ell^- \overline{\nu}$ Decay Rate and V_{cb} (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 051502 http://link.aps.org/abstract/PRD/V71/E051502

Measurements of the Branching Fraction and CP-Violation Asymmetries in $B^0 \rightarrow f_0(980)K_s^0$ (BaBar Collaboration) B. Aubert, et al. *Physical Review Letters* **94**, (2005) 041802 http://link.aps.org/abstract/PRL/V94/E041802

Study of the $B^- \rightarrow J/\psi \gamma K^- \pi^+ \pi^-$ Decay and Measurement of the $B^- \rightarrow X(3872)K^-$ Branching Fraction (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 71**, (2005) 071103 http://link.aps.org/abstract/PRD/V71/E071103

A Measurement of the Total Width, the Electronic Width, and the Mass of the Upsilon (10580) Resonance (BaBar Collaboration) B. Aubert, et al. *Physical Review* **D 72**, (2005) 032005 http://link.aps.org/abstract/PRD/V69/E111103/

Grants Awarded and Continued: Principal Investigator

Elementary Particle Physics Joe Izen and Xinchou Lou (Co-PIs) Department of Energy \$955,249 (4/15/04 – 4/14/07)

Cynthia E. Ledbetter, Associate Professor, Science Education B.S., University of Texas at Arlington, 1974 M.A.T., University of Texas at Dallas, 1983 Ph.D., Texas A&M University, 1987

Articles in Refereed Journals

Evaluating an integrated science learning environment using the Constructivist Learning Environment Survey (CLES) R.K. Nix, B.J. Fraser and C.E. Ledbetter *Environments Research* **8**, (2005) 109 – 133

Articles in Conference Proceedings

Taking them to the top: Benefits of long-term, sustained professional development R. Nix and C. E. Ledbetter *School, Science and Mathematics Annual Convention*, Ft. Worth, TX. : (November, 2005) 42

Tackling the TAKS with Penny Ante Science C. Ledbetter and F. Fifer *Conference for the Advancement of Science Teaching* Houston, TX: (October, 2005) 112

Using science student perceptions of the classroom learning environment to evaluate a professional development program R. Nix, B. Fraser and C. E. Ledbetter *International Conference on Science, Mathematics, and Technology Education* Victoria BC, Canada (August, 2005) CD

Grants Awarded and Continued: Principal Investigator

UTD-DISD-NSF LABoratory Enhancement Program Cynthia E. Ledbetter, CO-I National Science Foundation \$98,700 (2004-2005)

Taking Them to the Top: Cultivating and Integrated Science Learning Environment Cynthia E. Ledbetter Texas Higher Education Coordinating Board \$160,000 (2004-2006)

MAT-SE Online Cynthia E. Ledbetter, CO-I University of Texas TeleCampus \$79,435 (2005-2007)

Stephen D. Levene, Associate Professor, Molecular and Cell Biology A.B., Columbia University, 1979 Ph.D., Yale University, 1985

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Bulge defects do not destabilize negatively supercoiled DNA L. You and S.D. Levene *Journal of Biophysics* **89**, (2005) L43-L45

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Matthew I. Leybourne, Assistant Professor, Geosciences B.Sc., Waikato University, New Zealand, 1985

M.Sc., Acadia University, Nova Scotia, 1988 Ph.D., University of Ottawa, Ontario, 1998

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XinChou Lou, Professor, Experimental Particle Physics

B.S., University of Science and Technology of China, 1984 M.S., State University of New York, Albany, 1985 Ph.D., State University of New York, Albany, 1989

Articles in Refereed Journals

Observation Of A Broad Structure In The $\pi^+\pi^-J/\psi$ Mass Spectrum Around 4.26-Gev/C2 By BABAR Collaboration (B. Aubert et al.) *Physical ReviewLetters* **95** (2005) 142001

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A Study of B ---> C And B ---> U Interference In The Decay B- ---> [K+ PI-](D) K*-By BABAR Collaboration (B. Aubert et al.) *Physics Review* **D72** (2005) 071104

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The e+ e- ---> Pi+ Pi- Pi+ Pi-, K+ K- Pi+ Pi-, and K+ K- K+ K- Cross Sections At Center-Of-Mass Energies 0.5-Gev to 4.5-Gev Measured With Initial-State Radiation By BABAR Collaboration (B. Aubert et al.) *Physics Review* **D71** (2005) 052001

Search For Lepton Flavor Violation In The Decay Tau+- ---> mu+-Gamma By BABAR Collaboration (B. Aubert et al.) *Physical Review Letters* **94** (2005) 041802

Measurement Of The B0 ---> D*- D(S)*+ And D(S)+ ---> Phi Pi+ Branching Fractions By BaBar Collaboration (B. Aubert et al.) *Physics Review* **D71** (2005) 091104

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e+- mu-+ By BABAR Collaboration (B. Aubert et al.) *Physical Review Letters* **94** (2005) 221803

Grants Awarded and Continued: Principal Investigator

Elementary Particle Physics Joe Izen and Xinchou Lou (Co-PIs) Department of Energy \$720,000 (4/15/04 – 4/14/07)

Alan G. Macdiarmid, Professor, Physics and Chemistry;

James Von Ehr Distinguished Chair in Science and Technology

B.S., University of New Zealand, 1948

M.S., University of New Zealand, 1950

M.S., University of Wisconsin, 1952

Ph.D., University of Wisconsin, 1953

Ph.D., Cambridge University, 1955

Articles in Refereed Journals

Controlled Interconversion of Semiconducting and Metallic Forms of Polyaniline Nanofibers David M. Sarno, Sanjeev K. Manohar and Alan G. MacDiarmid *Synthetic Metals* **148** (2005) 237-243

Chemical Synthesis of PEDOT Nanofibers X.Y. Zhang, A.G. MacDiarmid and S.K. Manohar *Chemical Communications* **42** (2005) 5328-5330

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Absolute Molecular Weight of Polyaniline H.S. Kolla, S.P. Surwade, X.Y. Zhang, A.G. MacDiarmid and S.K. Manohar *Journal of the American Chemical Society* **127** (2005) 16770-16771

Article in Edited Volumes

Electrostatically Generated Nanofibers for Wearable Electronics Frank K. Ko, Afaf El-Auf, Hoa Lam and Alan G. MacDiarmid *Wearable Electronics and Photonics*, edited by Xiaoming Tao Cambridge, England, Woodhead Publishing Ltd. (2005) 13-40

Grants Awarded and Continuing: Principal Investigator

Conducting Polymers as New Materials for Hydrogen Storage Alan G. MacDiarmid U.S. Department of Energy (DOE), \$ 75,000 (Jan. 01- Sept. 31, 2005)

George A. McMechan, Professor, Geosciences Director, Center for Lithospheric Studies; Ida M. Green Professor B.A.Sc., University of British Columbia, 1970 M.S., University of Toronto, 1971 B.Sc., University of Victoria, 1983

Articles in Refereed Journals

Parsimonious poststack 3-D Kirchhoff migration Biaolong Hua and George McMechan *Geophysical Prospecting*, **53** (2005) 507-522

Fast 2-D model-based migration velocity analysis and reflector shape estimation Weihong Fei and George McMechan *Geophysics*, **70** (2005)U9-U17

Integrated study of ancient delta front deposits using outcrop, groundpenetrating radar, and three dimensional photorealistic data Cornel Olariu, Janok Bhattacharya, Xueming Xu, Carlos Aiken, Xiaoxian Zeng and George McMechan Society for Sedimentary Geology, Special Publication **83** (2005)155-177

Identification of shallow water flow sands by Vp/Vs inversion of conventional 3D seismic data Shaoming Lu and George McMechan *Geophysics*, **70** (2005) O29-O37

3-D modeling of fracture-induced shear-wave splitting in the Southern California Basin Suresh Nistala and George McMechan Bulletin of the Seismological Society of America, **95** (2005) 1090-1100

A GPR survey of a delta-front reservoir analog in the Wall Creek Member, Frontier Formation, Wyoming Keumsuk Lee, Xiaoxian Zeng, George McMechan, Chuck Howell, Janok Bhattacharya, Fanny Marcy, and Cornel Olariu American Association of Petroleum Geologists Bulletin, **89** (2005) 1139-1155

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Grants Awarded and Continued: Principal Investigator

UT-Dallas Geophysical Consortium G. A. McMechan Industrial Consortium \$180,000 (2005)

3-D sedimentological and geophysical studies of clastic reservoir analogs:
Facies architecture, reservoir properties, and flow behavior within delta front facies elements of the Cretaceous Wall Creek Member, Frontier Formation, Wyoming
G. A. McMechan with J. Bhattacharya
DOE, \$452,797 (June 1, 2001 to December 2005)

Sanjeev K. Manohar, Research Associate Professor, Chemistry

B.Sc., University of Madras, 1979 M.Sc., University of Madras, 1981

M.S., Southern Illinois University, 1986

Ph.D., University of Pennsylvania, 1992

Articles in Refereed Journals

Targeted Nanoparticles for Drug Delivery through the Blood-Brain Barrier for Alzheimer's Disease C. Roney, V. Arora, M. Bennet, P.V. Kulkarni, P. Antich, F. Bonte, A. Wu, S.K. Manohar, M. Sairam and T. M. Aminabhavi *Journal of Controlled Release* **108** (2005) 193

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Narrow Pore-diameter Polypyrrole Nanotubes X. Zhang and S.K. Manohar *Journal of the American Chemical Society* **127** (2005) 14156 Chemical Synthesis of PEDOT Nanofibers X. Zhang, A.G. MacDiarmid, and S.K. Manohar *Chemical Communications* **42** (2005) 5328

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Novel High Dielectric Constant Nanocomposites of Polyaniline Dispersed with γ -Fe2O3 Nanoparticles N.N. Mallikarjuna, S.K. Manohar, P.V. Kulkarni and T.M. Aminabhavi *Journal of Applied Polymer Science* **97** (2005) 1868

Controlled Interconversion of Semiconducting and Metallic Forms of Polyaniline Nanofibers D.M. Sarno, S.K. Manohar and A.G. MacDiarmid *Synthetic Metals* **148** (2005) 237

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Controlled Interconversion of Semiconducting and Metallic Forms of Polyaniline Nanofibers David M. Sarno, Sanjeev K. Manohar Alan G. MacDiarmid *Synthetic Metals* **148** (2005) 237

Versatile Carbon Nanotubes: Synthesis, Purification and Their Applications Nadagouda N. Mallikarjuna, Sanjeev K. Manohar and Tejraj M. Aminabhavi *Polymer News* **30** (2005) 6

William I. Manton, Professor, Geosciences

B.Sc., University of the Witwatersrand, 1959 B.Sc., Honours, University of the Witwatersrand, 1960 M.S., University of the Witwatersrand, 1963 Ph.D., University of the Witwatersrand, 1968

Articles in Refereed Journals

Origin of lead in the United States diet W.I. Manton, C.R. Angle and K.L. Stanek Krogsrand Environ Sci Technol. 39 (2005) 8995-9000

Grants Awarded and Continued: Principal Investigator

Sample Analysis William I. Manton Various sources \$14,400 for 2005, \$216,640 to date (1995-2005)

Lynn A. Melton, Professor of Chemistry

B.S., California Inst. of Technology, 1966 M.A., Harvard University, 1972 Ph.D., Harvard University, 1972

Grants Awarded and Continued: Principal Investigator

A Series of Workshops in the Chemical Sciences: Practical Aspect of Process Analytical Chemistry Lynn A. Melton Georgia State University (as administrator for NSF funding), \$18,276.00 (1/25/2005-6/2006)

Dennis L. Miller, Associate Professor, Molecular and Cell Biology B.A., University of Northern Iowa, 1969 Ph.D., University of Iowa, 1979

Articles in Refereed Journals

The myxomycete genus *Schenella:* morphological and DNA sequence evidence for synonomy with the gasteromycete genus *Pyrenogaster* Arturo Estrada-Torres, Thomas W. Gaither, Dennis L. Miller, Carlos Lado and Harold W. Keller *Mycologia* **97** (2005) 139 – 149

Nathan R. Miller, Senior Lecturer, Geosciences

B.A., The College of Wooster, 1982M.S. Bowling Green State University, 1985Ph.D., The University of Texas at Dallas, 1995

Articles in Refereed Journals

Mass-production of Cambro-Ordovician quartz-rich sandstone as a consequence of chemical weathering of Pan-African terranes:

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Probing the Neoproterozoic Hydrologic Cycle from Silicate Weathering Indices: Applications for Snowball Earth? Dean Tuck, Nathan R. Miller and Robert J. Stern *GSA National Meeting* Salt Lake City, UT, December 2005

A neodymium perspective for the Neoproterozoic banded iron formations from the Arabian Nubian Shield - A snowball Earth manifestation? S.K. Mukherjee, R.J. Stern, W.I. Manton, P.R. Johnson, and N.R. Miller *Geological Society of America Abstracts with Programs* **37** (2005) 7, 358

Homer Montgomery, Assistant Professor, Science Education and Mathematical Sciences B.S., University of Texas, Austin, 1982 Ph.D., University of Texas, Dallas, 1988

Articles in Refereed Journals

Constructivist Pedagogical Preferences of Undergraduate Students in Geoscience Service Courses at the University of Texas at Dallas H. Montgomery *The Texas Science Teacher* **34(1)** (2005) 25-30

What I Have Learned While Teaching Science to Undergraduates H. Montgomery *The Texas Science Teacher* **34(1)** (2005) 5-7

What Does a Field Scientist Do? H. Montgomery *The Texas Science Teacher* **34(2)** (2005) 5-6

When Humans Interact with a Volcano - Tragedy of Historic Proportions. H. Montgomery *The Texas Science Teacher* **34(2)** (2005)30-37

Grants Awarded and Continued: Principal Investigator

Regional Collaborative for Excellence in Science Education H.. Montgomery University of Texas at Austin, \$23,000 (2004-2005)

Regional Collaborative for Excellence in Science Education H. Montgomery University of Texas at Austin, \$105,000 (2004-2005)

Teaching Environmental Science H. Montgomery Texas Commission on Environmental Quality, \$20,000 (2005)

UTD/Mesquite ISD Integrated Physics and Chemistry Program H. Montgomery Texas Education Agency, \$79,819 (2004-2005)

UTD/Richardson ISD 8th Grade Program H. Montgomery Texas Education Agency, \$79,884 (2004-2005)

Inga H. Musselman, Associate Professor, Chemistry B.A., Gettysburg College, 1982 Ph.D., University of North Carolina at Chapel Hill, 1988

Articles in Refereed Journals

Peptide Cross-Linking Modulated Stability and Assembly of Peptide-Wrapped Single-Walled Carbon Nanotubes Hui Xie, Alfonso Ortiz-Acevedo, Vasiliki Zorbas, Ray H. Baughman, Rockford K. Draper, Inga H. Musselman, Alan B. Dalton and Gregg R. Dieckmann Journal of Materials Chemistry **15** (2005) 1734-1741

Diameter-Selective Solubilization of Single-Walled Carbon Nanotubes by

Reversible Cyclic Peptides Alfonso Ortiz-Acevedo, Hui Xie, Vasiliki Zorbas, William M. Sampson, Alan B. Dalton, Ray H. Baughman, Rockford K. Draper, Inga H. Musselman and Gregg R. Dieckmann *Journal of the American Chemical Society* **127** (2005) 9512-9517

Nanotube Network Transistors from Peptide-Wrapped Single-Walled Carbon Nanotubes Marc in Het Panhuis, Srinivas Gowrisanker, Douglas J. Vanesko, Charles A. Mire, Huiping Jia, Hui Xie, Ray H. Baughman, Inga H. Musselman, Gregg R. Dieckmann and Rockford K. Draper *Small* **1** (2005) 820-823

Importance of Aromatic Content for Peptide/Single-Walled Carbon Nanotube Interactions Vasiliki Zorbas, Amy L. Smith, Alfonso Ortiz-Acevedo, Hui Xie, Alan B. Dalton, Gregg R. Dieckmann, Rockford K. Draper, Ray H. Baughman and Inga H. Musselman *Journal of the American Chemical Society* **127** (2005) 12323-12328

Articles in Conference Proceedings

Monitoring Reactive Oxygen Species Dynamics from Human Epitheliallike Cells Exposed to Single Walled Carbon Nanotubes Shook-Fong Chin, Amy L. Smith, Ray H. Baughman, Gregg R. Dieckmann, Rockford K. Draper, Inga H. Musselman and Paul Pantano 229th ACS National Meeting San Diego, CA: (March 2005)

Novel Mixed-Matrix Membranes Based on Mesoporous Molecular Sieves and Hybrid Frameworks Kenneth R. Balkus, Jr., Yanfeng Zhang, Inga H. Musselman and John P. Ferraris *16th Annual Conference of the North American Membrane Society (NAMS* 2005) Providence, RI: (June 2005)

Gas Permeability Properties of Matrimid Membranes Containing Material with Both Micropores and Mesopores Yanfeng Zhang, Kenneth J. Balkus, Jr., Inga H. Musselman and John P. Ferraris *16th Annual Conference of the North American Membrane Society (NAMS* 2005) Providence, RI: (June 2005)

Importance of Aromatic Content for Peptide/Single-Walled Carbon

Nanotube Interactions
V. Zorbas, A. L. Smith, A. Ortiz-Acevedo, H. Xie, G. R. Dieckmann,
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Grants Awarded and Continued: Principal Investigator

Chemical Contrast in STM Images of Materials for Molecular Scale Sensors and Device Structures I. H. Musselman Robert A. Welch Foundation \$150,000 (2002-2005)

Mixed-Matrix Membranes for CO₂ and H₂ Gas Separations Using Metal-Organic Frameworks and Mesoporous Hybrid Silicas Inga Holl Musselman (PI), Kenneth J. Balkus, Jr. and John P. Ferraris (Co-PIs) Department of Energy – University Coal Research \$200,000 with \$25,000 matching funds from UTD (7/1/04 to 6/30/07)

Composite Membranes for Gas Separations Inga Holl Musselman Mobil Technology Company, Mobil Strategic Research Center \$48,000 (2003-2005)

Mixed Matrix Membranes for Gas Separation Using Nanoporous Metal Oxides and Metal Organic Frameworks Inga Musselman The Higher Education Coordinating Board – Advanced Technology Program \$150,000 (1/01/04 to 12/31/06)

Steven O. Nielsen, Assistant Professor, Chemistry B.S., Queen's University, 1996 M.S., University of Toronto, 1998 Ph.D., University of Toronto, 2001

Articles in Refereed Journals

Incorporating a hydrophobic solid into a coarse grain liquid framework: graphite in an aqueous amphiphilic environment S.O. Nielsen, G. Srinivas and M.L. Klein *Journal of Chemical Physics* **123** (2005) 124907

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V. Ortiz, S.O. Nielsen, D.E. Discher, M.L. Klein, R. Lipowsky and J. Shillcock *Journal of Physical Chemistry* **B 109** (2005) 17708-17714

Modeling surfactant adsorption on hydrophobic surfaces S.O. Nielsen, G. Srinivas, C.F. Lopez and M.L. Klein *Physical Review Letters* **94** (2005) 228301

Modeling surfactant adsorption on hydrophobic surfaces S.O. Nielsen, G. Srinivas, C.F. Lopez and M.L. Klein *Virtual Journal of Nanoscale Science & Technology* (June 20, 2005)

Modeling surfactant adsorption on hydrophobic surfaces S.O. Nielsen, G. Srinivas, C.F. Lopez and M.L. Klein *Virtual Journal of Biological Physics Research* (June 15, 2005)

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Structure and dynamics of model pore insertion into a membrane C.F. Lopez, S.O. Nielsen, B. Ensing, P.B. Moore and M.L. Klein *Biophysical Journal* **88** (May 2005 – cover article) 3083-3094

István Ozsváth, Professor, Mathematical Sciences Diplom.(Mathematics, Physics, Astronomy) University of Budapest, 1951 Ph.D., University of Hamburg, 1960

Articles in Refereed Journals

Pressure as a source of gravity J. Ehlers, I. Ozsváth, E.L. Schüking and Y. Shang *Physical Review* **D** 72 (2005) 124003-1-124003-8

Betty Sue Pace, Professor, Molecular and Cell Biology Associate Director, Dallas Sickle Cell Disease Research Center B.S., Marquette University, 1976 M.D., Medical College of Wisconsin, 1981

Articles in Refereed Journals

U0126, a novel fetal hemoglobin inducer in human erythroid progenitors R.L. McElveen, T.F. Lou, K. Reese, S. Xia, B.S. Baliga and B.S. Pace *Cell and Molecular Biology* **51** (2005) 215-227

Scriptaid, a novel histone deacetylase inhibitor induces γ -globin gene expression in erythroid progenitors J. Johnson, X.H. Qian, R. Hunter, R. McElveen and B.S. Pace *Cell and Molecular Biology* **51** (2005) 229-238

Articles in Conference Proceedings

Characterization of trans-activators involved in γ-globin gene expression during erythroid maturation W. Li, M.S. Lee, J. Sangerman and B.S. Pace *28th National Sickle Cell Disease Program*, Cincinnati, Ohio (April 2005)

Scriptaid induces γ-globin gene expression in erythroid proigenitors through p38 MAPK activation. J. Johnson, R. Hunter, B.S. Baloiga and B.S. Pace *28th National Sickle Cell Disease Program*, Cincinnati, Ohio (April 2005)

Mechanisms for γ -globin activation by U0126: transcriptional profiling studies

R. Bonthu, S. Xisa, T.Z. Lou and B.S. Pace 28th National Sickle Cell Disease Program, Cincinnati, Ohio (April 2005)

KU812 cells as a model system to detect fetal hemoglobin inducers. T.Z. Lou, A.Williams and B.S. Pace *47th American Society Hematology Annual Meeting*, Atlanta GA (December 2005)

Microarray studies of the gamma to beta globin switch in erythroid progenitors. W. Li and B.S. Pace

45th American Society Hematology Annual Meeting, Atlanta GA (December 2005)

Grants Awarded and Continued: Principal Investigator

Mechanism For p38 MAPK Dependent γ Gene Induction Betty S. Pace National Heart Lung and Blood Institute; RO1 HL69234-02 \$1,300,000 (2002 – 2006)

Mechanisms for STAT3-Mediated γ Gene Silencing, Betty S. Pace National Heart Lung and Blood Institute; R01 HL073447-01 \$1,100,000 (2003 – 2007)

Mechanisms for STAT3-Mediated γ Gene Silencing Betty S. Pace National Heart Lung and Blood Institute; RO1 HL073447-01 \$1,100.000 (2003 – 2007)

Mechanisms for STAT3-β Mediated Gene Silencing -Minority Student Training Supplement Betty S. Pace National Heart Lung and Blood Institute; RO1 HL69234-02S1 \$53,401 (2004 - 2006)

The role of β -cluster polymorphisms in γ -globin expression - Southwest Comprehensive Sickle Cell Center Trainee Betty S. Pace National Heart Lung and Blood Institute \$92,000.00 (April 1, 2005 to March 31, 2008)

Minority Recruitment Retention and Opportunity for Research Betty S. Pace Health and Human Services Education Bill \$300,000.00 (July 1, 2005 to August 30, 2006)

Paul Pantano, Associate Professor, Analytical Chemistry
 B.S., University of California, Los Angeles, 1986
 M.S., California State Polytechnic University, Pomona, 1988
 Ph.D., University of California, Riverside, 1993

Articles in Refereed Journals

Concurrent 31P Nuclear Magnetic Resonance Spectroscopy and Fiber-Optic Oxygen Consumption Measurements in Perfused Rat Hearts Piyu Zhao, Yadong Zhao, A. Dean Sherry and Paul Pantano *Methods in Enzymology* **381** (2004) 735-746

Grants Awarded and Continued: Principal Investigator

Spatially-Selective Chemical Tailoring of Microfluidic Surfaces P. Pantano The Robert A. Welch Foundation \$45,000 (2002-2005)

Novel Protein Surface Chemistries Paul Pantano The Robert A. Welch Foundation \$160,000 (June 1, 2003 – May 31, 2006)

Welch Summer Scholar Program P. Pantano The Robert A. Welch Foundation \$14,400 (2005)

Emile A. Pessagno, Jr., Professor, Geosciences

B.A., Princeton University, 1955 M.S., Cornell University, 1957 Ph.D., Princeton University, 1960

Articles in Refereed Journals

Tectonostratigraphy of Khoy Complex, Northwestern Iran E.A. Pessagno, Jr., A.M. Ghazi, M. Kariminia, R.A. Duncan and A.A. Hassanipak *Stratigraphy* **2** (2005) 1-22 and 49-63

Tehama-Colusa Serpentinite Mélange: A remnant of Franciscan Jurassic oceanic lithosphere, Northern California C.A. Hopson and E.A. Pessagno, Jr. *International Geology Review* **47** (2005) 65-100

Articles in Conference Proceedings

Cretaceous radiolarians (Campanian and Aptian) from the Washikemba Formation, La Bonair, Netherlands Antilles H. Montgomery, E.A. Pesssagno, Jr. and S.M. Kariminia 17th Carribbean Geological Conference San Juan, Puerto Rico (July 2005)

Age and Provenance of the Restricted Gemuk Group (Triassic to Lower Cretaceous), Southwest Alaska

M.L. Miller, D. Bradley, T.K. Bundtzen, R. Blodgett, E.A. Pessagno, Jr. and R. Tucker

Geological Society of America Abstracts with Programs **37** (7) Salt Lake City, UT (October 2005) 81

Viswanath Ramakrishna, Professor, Mathematical Sciences

B.S., St. Stephens College, University of Delhi, 1984

M.S., Indian Inst. of Technology, 1986

M.S., Washington University, 1988

Ph.D., Washington University, 1991

Articles in Conference Proceedings

Active Optical Lattice Filters as Programmable ODE Solvers L. R. Hunt, N. Spears, T. Constantinescu, G. Kannan, D. Mac-Farlane, I. Panahi, V. Ramakrishna and J. Tong *IEEE-LEOS Summer Topical*, San Diego, CA, (July 25th-27th, 2005) 33-34

Active Optical Lattice Filters

D. MacFarlane, J. Tong, L. R. Hunt, I. Panahi, T. Constantinescu, V. Ramakrishna, G. Evans and M. Christensen *IEEE-LEOS Summer Topica*l, San Diego,CA, (July 25th-27th, 2005) 43-44

Lawrence J. Reitzer, Professor of Molecular and Cell Biology B.S., Case Western Reserve University, 1973 Ph.D., Washington University, 1978

Articles in Refereed Journals

Crystal structure of N-succinylarginine dihydrolase, AstB, bound to substrate and product, an enzyme of the arginine catabolic pathway of Escherichia coli

A. Tocilj, J. D. Schrag, Y. Li, B. L. Schneider, L. Reitzer, A. Matte, and M. Cygler

Journal of Biological Chemistry 280 (2005) 15800-15808

Articles in Edited Volumes

Catabolism of amino acids and related compounds L. Reitzer *EcoSal, Escherichia coli and Salmonella typhimurium. Cellular and Molecular Biology*, third edition, edited by August Böck Module 3.4.7 Wash., D. C.: ASM Press (2005) <u>http://www.ecosal.org</u>.

Grants Awarded: Principal Investigator

Genes of nitrogen metabolism in Escherichia coli L. J. Reitzer National Science Foundation \$390,000 (2003-2006)

Robert Serfling, Professor, Mathematical Sciences B.S., Georgia Inst. of Technology, 1963 Ph.D., University of North Carolina, Chapel Hill, 1967

Articles in Refereed Journals

Multivariate generalized spatial signed-rank methods J. Mottonen, H. Oja and R. Serfling *Journal of Statistical Research* **39** (2005) 25-48

Extremal point queries with lines and line segments and related problems O. Daescu and R. Serfling *Computational Geometry: Theory and Applications* **32** (2005) 223-237

Grants Awarded or Continued: Principal Investigator

Nonparametric and Robust Multivariate Analysis via Quantile Functions Robert Serfling National Science Foundation \$285,000 (2001-2006)

Outlier Identification and Handling in Computational Geometry Problems Ovidiu Daescu and Robert Serfling (Co-PI's) National Science Foundation Grant \$99,972 (2004 – 2006)

Mathematical Modeling and Testing of the Relationship of Prostate Gland Volume to Prostate Cancer Detection Rate Robert Serfling GlaxoSmithKline \$25,379 (2004 – 2005)

IPA Assignment Robert Serfling National Science Foundation \$ 181,350 (2004 – 2005)

A. Dean Sherry, Professor, Chemistry

Green Honors Endowed Chair of Chemistry B.S., Wisconsin State University, LaCrosse, 1967 Ph.D., Kansas State University, 1971

Articles in Refereed Journals

Bifunctional Chelators: An Important Tool in the Development of Inorganic Pharmaceuticals M. Woods and A.D. Sherry *Chimica Oggi-Chemistry Today*, **23**, (2005) 31-34

Chemistry for DOTA peptide labeling at phenylalanine residues: On the road to preparing peptide ligand tagged libraries L.M. De León-Rodríguez, Z. Kovacs and A.D. Sherry *Letters in Organic Chemistry* **2**, (2005) 160-164

A numerical solution of the Bloch equations provides insights into the optimal design of PARACEST agents for MRI D.E. Woessner, S. Zhang, M.E. Merritt and A.D. Sherry *Magnetic Resonance in Medicine*, **53**, (2005) 790-799

Modulation of the Lifetime of Water Bound to Lanthanide Metal Ions in Complexes with Ligands Derived from 1,4,7,10-Tetraazacyclododecane Tetraacetate (DOTA) S. Zhang, X. Jiang and A.D. Sherry *Helvetica Chimica Acta*, **88**, (2005) 923-935

Effect of Murine Strain on Metabolic Pathways of Glucose Production after Brief or Prolonged Fasting S.C. Burgess, F.M.H. Jeffrey, C. Storey, A. Milde, N. Hausler, M.E. Merritt, H. Mulder, C. Holm, A.D. Sherry and C.R. Malloy *American Journal of Physiology* **289**, (2005) E53-E61

Differing Mechanisms of Hepatic Glucose Overproduction in Triiodothyronine-Treated Rats versus Zucker Diabetic Fatty Rats by NMR Analysis of Plasma Glucose E.S. Jin, S.C. Burgess, M.E. Merritt, A.D. Sherry and C.R. Malloy *American Journal of Physiology* **288**, (2005) E654-E662

Comparison of [3,4-¹³C2]Glucose to [6,6-²H₂]Glucose as a Tracer for Glucose Turnover by Nuclear Magnetic Resonance E.S. Jin, J.G. Jones, S.C. Burgess, M.E. Merritt, A.D. Sherry and C.R. Malloy *Magnetic Resonance in Medicine* **53**, (2005) 1479-1483

On Resonance Low B1 Pulses for Imaging of the Effects of PARACEST Agents

E. Vinogradov, S. Zhang, A. Lubag, J.A. Balschi, A.D. Sherry and R.E. Lenkinski

Journal of Magnetic Resonance 176, (2005) 54-63

Selective Sensing of Zn²⁺ with a Novel PARACEST Agent R. Trokowski, J. Ren, F.K. Kalman and A.D. Sherry *Angewandte Chemie International Edition* **44**, (2005) 6920-6923

MRI Thermometry Based on PARACEST Agents S. Zhang, C.R. Malloy and A.D. Sherry *Journal of American Chemical Society*, **127**, (2005) 17572-17573

Structural and Chiroptical Properties of the Two Coordination Isomers of YbDOTA-type Complexes L. Di Bari, G. Pescitelli, A.D. Sherry and M. Woods *Inorganic Chemistry* **44**, (2005) 8391-8398

Towards the Rational Design of Contrast Agents: A Practical Approach to the Synthesis of Gadolinium Complexes that Exhibit Optimal Water Exchange M. Woods, M. Botta, J. Wang and A.D. Sherry *Journal of Chemical Society*, Dalton Trans., (2005) 3829-3837

Inhibition of cardiac lipoprotein utilization by transgenic overexpression of Angptl4 in the heart X. Yu, S.C. Burgess, H. Ge, K.K. Wong, R.H. Nassem, D.J. Garry, A.D. Sherry, C.R. Malloy, J.P. Berger and C. Li *Proceedings of the National Academy Science* USA, **102**, (2005) 1767-1772

Articles in Edited Volumes

Metabolic Networks in the Liver by ²H and ¹³C NMR Metabolomics by In Vivo NMR, edited by R.G. Shulman and D.A. Rothman John Wiley & Sons, Ltd., West Sussex, England, (2005) Chapter 12, pp 159-174

Articles in Conference Proceedings

Water Exchange is the Key Parameter in the Design of Next-Generation MRI AgentsA.D. Sherry, S. Zhang and M. WoodsACS Symposium Series (2005) 903

Grants Awarded and Continued: Principal Investigator

MRI Agents Sensitive to Biological Indicators of Neoplasm A.D. Sherry National Institutes of Health (R33) \$635,314 (2000- 2005)

High Relaxivity, Responsive MR Imaging Agents A.D. Sherry National Institutes of Health (RR through UTSW) \$354,950 (2001-2006)

Lanthanide DOTA-tetraamide Complexes as Biological Sensors A.D. Sherry The Robert A. Welch Foundation \$150,000 (2002-2005)

Intermediary Metabolism in the Heart by NMR Spectroscopy A. D. Sherry National Institutes of Health, NHLBI \$1,125,000 (2002-2007)

PARACEST for Molecular Imaging of Cancer by MRI A.D. Sherry National Institutes of Health, \$888,750, (August 2005-July 2010)

Patents

Paramagnetic Metal ion-based Macrocyclic Magnetization Transfer (MT) Contrast Agents and Method of Use A.D. Sherry, S. Zhang and K. Wu U.S. Patent No. *6*,*875*,*419* (April 5, 2005)

Improved Process for Making a Chelating Agent for Labeling Biomolecules using Preformed Active Esters Z. Kovacs, D.S. Mudigonda and A.D. Sherry U.S. Patent No. *6,838,557* (January 4, 2005)

Preformed Carboxylated Active Ester for Labeling Biomolecules Z. Kovacs, D.S. Mudigonda and A.D. Sherry U.S. Patent No. *6*,852,854 (February 8, 2005)

Process for making a chelating agent for labeling biomolecules using preformed active esters Z. Kovacs, D.S. Mudigonda A.D. Sherry U.S. Patent No. *6,838,557* (January 4, 2005)

John W. Sibert, IV, Associate Professor, Chemistry B.S., University of South Florida, 1986 Ph.D., University of Texas, Austin, 1991

Articles in Refereed Journals

Wurster's crownophanes: an alternate topology for paraphenylenediamine-based macrocycles J.W. Sibert, G.R. Hundt, A.L. Sargent and V. Lynch *Tetrahedron* **61** (2005) 12350-12357

Wurster's Thiacrown Ethers: Synthesis, Properties and Pt(II) Coordination Chemistry J.W. Sibert, P.B. Forshee and V. Lynch *Inorganic Chemistry* **44** (2005) 8602-8609

Grants Awarded and Continued: Principal Investigator

Wurster's Aza- and Thiacrown Macrocycles: New Redox-Active Hosts for the Coordination of Transition and Heavy Metal Ions John Sibert The Welch Foundation \$150,000 (2004-2007)

Robert J. Stern, Professor of Geosciences

B.S., University of California, Davis, 1974 Ph.D., Scripps Inst. of Oceanography, (University Of California, San Diego), 1979

Articles in Refereed Journals

Re-initiation of Subduction and Magmatic Responses in SW Japan during Neogene Time J-I Kimura, Robert J. Stern and T. Yoshida *Bulletin of the Geological Society of America* **117** (2005) 969-986

Evidence from Ophiolites, Blueschists, and Ultra-High Pressure Metamorphic Terranes that the Modern Episode of Subduction Tectonics Began in Neoproterozoic Time Robert J. Stern *Geology* **33** (**7**) (2005) 557-560

Geochemical Mapping of the Mariana Arc-Basin System: Implications for the Nature and Distribution of Subduction Components J.A. Pearce, Robert J. Stern, Sherman H. Bloomer and P. Fryer *Geophysics, Geochemistry, Geosystems* 6 (7) (2005) Q07006, doi:10.1029/2004GC000895 The May 2003 eruption of Anatahan Volcano, Mariana Islands: Geochemical Evolution of a Silicic Island Arc Volcano J. Wade, T. Plank, Robert J. Stern, D. Tollstrup, J. Gill, Julie O'Leary, R.B. Moore, F. Trusdell, T.P. Fisher and D.R. Hilton *Journal of Volcanology and Geothermal Research* **146** (2005) 1-3 and 139-170

Mass-production of Cambro-Ordovician quartz-rich sandstone as a consequence of chemical weathering of Pan-African terranes: Environmental Implications D. Avigad, A. Sandler, K. Kolodner, Robert J. Stern, M. McWilliams, Nathan R. Miller and Michael Beyth Earth and Planetary Science Letters **240** (2005) 818-826

Articles in Conference Proceedings

Geochemical characteristics of the earliest volcanism in the Izu-Bonin forearc

O. Ishizuka, J.I. Kimura, Y.B. Li, Robert J. Stern, M. Reagan,

R.N. Taylor, Ulysses S. Hargrove, T. Ishii, S. Haraguchi, Y. Ohara and Sherman H. Bloomer

EGU Geophysical Research Abstracts 7 (2005)

Large Igneous Province: Cambrian Diabase Dikes, Eastern Arbuckle Mountains, Oklahoma

E.G. Lidiak, R.E. Denison and Robert J. Stern

AAPG Midcontinent Section Meeting Oklahoma City, (Sept 2005)

Carbonate Chemical and Petrographic Trends in an Ediacaran? Postamalgamation Basin, NE Arabian Shield

Nathan R. Miller, Brittney Blake, Robert J. Stern and P.R. Johnson *GSA National Meeting* Salt Lake City, UT, (December 2005)

Remote Sensing and GIS as a Cyber-reconnaissance tool in Northern Ethiopia and Southern Eritrea

Erik Friesen, Nathan R. Miller, Robert J. Stern, S. Arafat and Mohamed G. Abdelsalam

GSA National Meeting Salt Lake City, UT, (December 2005)

Probing the Neoproterozoic Hydrologic Cycle from Silicate Weathering Indices: Applications for Snowball Earth? Dean Tuck, Nathan R. Miller and Robert J. Stern *GSA National Meeting* Salt Lake City, UT, December 2005

Grants Awarded and Continued: Principal Investigator

Mantle inputs to the Subduction Factory: Assessing Scales of Spatial Variability along and across the IBM Convergent Margin: Accomplishment-Based Renewal Robert J. Stern NSF-OCE; \$365,513 (6/01/04-05/31/09)

US-Ethiopian Cooperative Research: Studies of Snowball Earth Robert J. Stern and Nathan R. Miller NSF-INT; \$26,908 (09/01/04-08/31/06)

Development of a New Undergraduate Science Service Course to Attract Hispanic Students to Science: Geography, Resources, and Environment of Hispanic America Robert J. Stern (with Ignacio Pujana and Cynthia Ledbetter) NSF-EHR-DUE \$69,992 (8/1/03-7/31/05)

Testing Models of Crustal Growth in the Neoproterozoic Arabian-Nubian Shield Robert J. Stern NSF-EAR \$154,798 (06/01/03-12/31/05)

The Search for Evidence of Neoproterozoic Snowball Earth in the Arabian-Nubian Shield Robert J. Stern (with Nathan Miller, UTD, and D. Avigad, Hebrew University) US-Israel Bi-National Science Foundation, \$60,000 (9/1/03-8/31/06)

Field, Remote Sensing and Geochemical Studies of Neoproterozoic Banded Iron Formation in the Eastern Desert of Egypt Robert J. Stern NSF-EAR \$37,741 (2005-2007)

Brian A. Tinsley, Professor, Physics

B.Sc., University of Canterbury, 1958 M.Sc., University of Canterbury, 1961 Ph.D., University of Canterbury, 1963

Articles in Refereed Journals

On the Variability of the Stratospheric Column Resistance in the Global Electric Circuit B. A. Tinsley *Atmospheric Research* **76** (2005) 78-94 Evidence for Space Weather Effects on Tropospheric Weather and Climate B.A. Tinsley *Bulletin of the American Meteorological Society* **27** (2005) 475-475

Articles in Conference Proceedings

Evidence for space Weather Affecting Tropospheric Weather and Climate B.A. Tinsley *American Meteorological Society*, San Diego, (January, 10-13, 2005)

Cosmic Ray flux, Clouds, and Climate B. A. Tinsley and G. B. Burns *American Geophysical Union*, San Francisco, (December 6-10, 2005)

Interplanetary Magnetic Field (IMF By) and Atmospheric Electric CircuitInfluences on Ground Level Pressure at VostokG. B. Burns, B. A .Tinsley, O. A. Troshichev, A.V. Frank-Kamenetskyand E. A. Bering*American Geophysical Union*, San Francisco, (December 6-10, 2005)

Response of a Global Circuit Model with Stratospheric and Tropospheric Aerosols to Cosmic Ray flux Changes L. Zhou and B. A.Tinsley *American Geophysical Union*, San Francisco, (December 6-10, 2005)

The Use of Conducting Spheres Electrical forces in Electroscavenging Simulation S. Plemmons and B. A. Tinsley *American Geophysical Union*, San Francisco, (December 6-10, 2005)

Grants Awarded and Continued: Principal Investigator

Modeling the Global Circuit Response to Solar Activity B. A. Tinsley National Science Foundation \$247,170, (2004-2008)

Janos Turi, Professor, Mathematical Sciences

B.S., Polytechnic University, Budapest, 1975M.S., Polytechnic University, Budapest, 1977Ph.D., Virginia Polytechnic Inst. and State University, 1986

Articles in Refereed Journals

Numerical Stability Analysis in Respiratory Control System Models J. Turi and L. Kollar *Electronic Journal of Differential Equations* **c12** (2005) 65-78

Articles in Edited Volumes

Sensitivity Analysis of an Attack Containment Model J. Turi, J. W. Cangussu and R. Dantu *ISI 2005, Lecture Notes in Computer Science* **3495** edited by P. Kantor, et. al. Springer Verlag, (2005) 127-138

Articles in Conference Proceedings

A Quantitative Learning Model for Software Test Process J. Turi, A. Ghaffari and J. W. Cangussu *Proceedings of the 38th Hawaii International Conference on System Science*, Kona , Hawaii, (January 3-6, 2005) (10 pages)

State-Dependent Delay Model for Regenerative Cutting Processes J. Turi, T. Insperger and G. Stepan *Proceedings of the 5th EUROMECH Nonlinear Dynamics Conference*, *ENOC 2005*, Eindhoven, The Netherlands, (August 7-12, 2005)1124-1129

State Dependent Regenerative Delay in Milling Processes J. Turi, F. Hartung, T. Insperger and G. Stepan *Proceedings of ASME International Design Engineering Technical Conferences* Long Beach, California, (September 24-28, 2005) DETC2005-85282 (CD-ROM)

Identification of Parameters in Neutral Functional Differential Equations with State-Dependent Delays J. Turi and F. Hartung *Proceedings of the 44th IEEE Conference on Decision and Control*, (December 12-15, 2005) Seville, Spain

Mary L. Urquhart Kelly, Assistant Professor, Science and Mathematics Education B.S., New Mexico Insitutue of Mining and Technology, 1992 M.S., University of Colorado, 1995 Ph.D., University of Colorado, 1999

Articles in Edited Volumes

Teachers as Students, in Cosmos M.L. Urquhart *The Classroom 2004: A Hands-On Symposium on Teaching Introductory Astronomy*, edited by A. Fraknoi and W. Waller ASP, (2005)

Adapting Pre-College Activities on Scale to Astronomy 101 M.L. Urquhart *Cosmos in the Classroom 2004: A Hands-On Symposium on Teaching Introductory Astronomy*, edited by A. Fraknoi and W. Waller ASP, (2005)

Articles in Conference Proceedings

Space Science for Middle School Teachers: Integrating CINDI E/PO into a Long-Term Professional Development Program M.L. Urquhart and M.R. Hairson *American Geophysical Union*, abstract # ED11C-1109, Fall Meeting 2005

Impact of Low Thermal Conductivity Layers on the Bulk Conductivity of a Martian Crustal Column M.L. Urquhart *Lunar Planet. Sci.*, XXXVII, (2005) 2337

Impacting Classroom Teachers Through Long-Term Professional Development M.L. Urquhart and K. M. Bober *Lunar Planet. Sci.*, XXXVII, (2005) 1480

Early Childhood Ideas of Science and Scientists M.L. Urquhart and K. M. Bober *NARST Proceedings*, (2005)

Grants Awarded and Continued: Principal Investigator

Bringing Stars and Planets into Middle Schools with a New Set of Astronomy Lesson Plans Mary L. Urquhart NASA IDEAS (Initiative to Develop Education through Astronomy and Space Science) Grant Program: \$35,180 (2004-2006) Tianbing Xia, Assistant Professor, Molecular and Cell Biology

B.S., Peking University, Beijing, China, 1991 M.S., Peking University, Beijing, China, 1994

Ph.D., University of Rochester, 1999

Articles in Refereed Journals

RNA-protein recognition: Single-residue ultrafast dynamical control of structural specificity and function Tianbing Xia, Chaozhi Wan, Richard W. Roberts and Ahmed H. Zewail *Proceedings of National Academy of Sciences* USA **102** (2005) 13013-13018

Ultrafast unequilibrated charge transfer: A new channel in the quenching of fluorescent biological probes Chaozhi Wan, Tianbing Xia, Hans-Christian Becker and Ahmed H. Zewail *Chemical Physics Letters* **412** (2005) 158-163

Anvar A. Zakhidov, Professor, Physics

M.S., Tashkent Technical University, 1975 Ph.D., Inst. of Spectroscopy of USSR Academy of Sciences, 1981

Articles in Refereed Journals

Strong, Transparent, Multifunctional, Carbon Nanotube Sheets M. Zhang, S Fang, A. A. Zakhidov, S.B. Lee, A. Aliev, C. Williams, K. Atkinson and R. H. Baughman *Science*, **309** (2005) 1215

Nonlinear surface waves at the interfaces of left-handed electromagnetic media

S.A. Darmanyan, M. Neviere and A.A. Zakhidov Institute of Spectroscopy, Russian Academy of Sciences, Troitsk, Russia. Physical Review E: Statistical, Nonlinear, and Soft Matter Physics **72(3)** (2005) 036615/1-036615/6

Temperature and Time Dependence of Heat Treatment of RR-P3HT/PCBM Solar Cell K.Inoue, R. Ulbricht, P.Madakasira, W. Sampson, S. Lee, J. Gutierrez, J. Ferraris and A.A. Zakhidov *Synthetic Metals* **154**, (2005) 41-44

Cathodoluminesence from organic bilayer induced by field electron

emission of carbon nanotubes Rashmi Nanjundaswamy, Christopher Williams, Sergei B. Lee and Anvar A. Zakhidov *Synthetic Metals* **155** (2005) 258-261

Multilayer encapsulation of plastic photovoltaic devices Pallavi Madakasira, Kanzan Inoue, Ross Ulbricht, Sergey B. Lee, M. Zhou, John Ferraris and Anvar A. Zakhidov *Synthetic Metals* **155** (2005) 332-335

Articles in Conference Proceedings

High efficiency P3HT/PCBM solar cell Kanzan Inoue, Ross Ulbricht, Pallavi C. Madakasira, Miaoxin Zhou, Sergey B. Lee, John Ferraris and Anvar A. Zakhidov NanoTech Institute, The University of Texas at Dallas, Richardson, TX *Materials Research Society Symposium Proceedings* (2005) 836 (*Materials for Photovoltaics*) 69-74

Nanocomposite Solar Cells Based on Conjugated Polymer / PbSe Quantum Dot Xiaomei Jiang, Sergey B. Lee, Igor B. Altfeder, Anvar A. Zakhidov, Richard D. Schaller, Jeff M. Pietryga and Victor I. Klimov *Proceedings of SPIE* Vol. **5938** (2005) 59381F

Cathodoluminesence from Multi-layered Organic Structures Induced by Field Electron Emission from Carbon Nanotubes Alexander Kuznetsov, Sergei B. Lee, John Ferraris and Anvar A. Zakhidov *Proceedings of SPIE* Vol. **5937-71** (2005)

Grants Awarded and Continued: Principal Investigator

Negative Index Materials at Infrared and visible wavelengths Anvar A. Zakhidov AFOSR \$374,964 (5/1/05 – 12/31/08)

Nanoscale Polymeric Photocells by Advanced Electrospinning Anvar A. Zakhidov AFOSR grant \$450,000 (March 2003 -2006)

Synthesis of "quantum dot-conducting polymer" nano-stars for fundamental enhancement of photovoltaic conversion by charge multiplication Anvar A. Zakhidov Welch Grant, \$150,000 (4/1/05 - 4/1/08) Quantum Dot Sensitized Nanostructures Solar Cells with Charge Multiplication Anvar A. Zakhidov SPRING/AFOSR, \$75,000 (06/01/2005 – 06/01/2007)

SCHOOL OF SOCIAL SCIENCES

Brian J.L. Berry, Professor and Dean

Bobby C. Alexander, Associate Professor, Sociology B.A., Baylor University, 1973
M.Div., Union Theological Seminary, New York, 1976
M.Phil., Columbia University, 1981
Ph.D., Columbia University, 1985
Ph.D., Union Theological Seminary, 1985

Articles in Edited Volumes

Ceremony Bobby C. Alexander *Encyclopedia of Religion*, Second Edition, Vol. 3. edited by Lindsay Jones, et al. New York: The Macmillan Publishing Company (2005) 1512-1519

Nathan Berg, Associate Professor, Economics;

Green Professor of the Study of Science and Society B.A., University of Kansas, 1995 Ph.D., University of Kansas, 2001

Articles in Refereed Journals

Does society benefit from investor overconfidence in the ability of financial market experts? N. Berg and D. Lien *Journal of Economic Behavior and Organization* **58** (2005) 95-116

Decision-making environments in which unboundedly rational decision makers choose to ignore relevant information Nathan Berg *Global Business and Economics Review* **7(1)** (2005) 59-73

Articles in Edited Volumes

Non-response bias Nathan Berg Encyclopedia of Social Measurement vol. 2, edited by K. Kempf-Leonard London, Academic Press (2005) 865-873

Articles in Conference Proceedings

Psychological economics and the size of government: On anti-, anti-anti-, ..., (anti-)ⁿ Nathan Berg Economic Modernization and Cultivation of Institutions (Proceedings of the 6th Annual Conference of the State University - Higher School of Economics, Moscow) edited by Y. Yasin HSE Publishing House (2005) 367-375

In search of environments where less is more: One-reasons decisionmaking and lexicographic extensions Nathan Berg *Advances in Cognitive Economics*, edited by B. Kokinov Sofia: NBU Press (2005)

Brian J. L. Berry, Professor, Dean

The Lloyd Viel Berkner Regental Professor B.Sc., University of London, 1955 M.A., University of Washington, 1956 Ph.D., University of Washington, 1958

Edited Books

Urban Geography in America, 1950-2000: Paradigms and Personalities Brian J.L. Berry and James O. Wheeler New York: Routledge (2005) 408 p.

Articles in Refereed Journals

Paul Wheatley, 1921-1999 Donald C. Dahmann and Brian J.L. Berry *Geographers: Biobibliographical Studies* **24** (2005) 124-145

Articles in Edited Volumes

Geography's Quantitative Revolution: Initial Conditions, 1954-1960 Brian J.L. Berry Reprinted in *Urban Geography in America 1950-2000: Paradigms and Personalities*, edited by Brian J.L. Berry and James O. Wheeler New York: Routledge (2005) August-September 1978 Brian J.L. Berry *Presidential Musings from the Meridian*, edited by M. Duane Nellis, Janice Monk and Susan L. Cutter Morgantown: West Virginia University Press (2005) 22-23

Urbanization: Impact on Development Brian J.L. Berry *Encyclopedia of the Developing World*, edited by Thomas M. Leonard New York: Routledge **3** (2005) 1641-1643

Urbanization: Impact on Environment Brian J.L. Berry *Encyclopedia of the Developing World*, edited by Thomas M. Leonard New York: Routledge **3** (2005) 1643-1646

Patrick T. Brandt, Assistant Professor of Government, Politics and Political Science A.B., College of William and Mary, 1994

M.S., Northwestern University, 1997 Ph.D. Indiana University, 2001

Articles in Conference Proceedings

Modeling Macro Political Dynamics: The Pitfalls of Parsimony Patrick T. Brandt and John R. Freeman (University of Minnesota) *American Political Science Association Meeting*, Washington, DC, (September 2005)

Advances in Bayesian Time Series Modeling and the Study of Politics: Theory Testing, Forecasting, and Policy Analysis Patrick T. Brandt and John R. Freeman *Annual Meeting of the Midwest Political Science Association*, Chicago, IL, (April 2005)

Never-Lasting Peace: Explaining the Duration of Civil Wars Patrick T. Brandt, T.David Mason, Mehmet Gurses, Patrick McLeod, Nicolai Petrovsky and Dasha Radin *Annual Meeting of the International Studies Association*, Honolulu, Hawaii, (March 2005)

Grants Awarded and Continued: Principal Investigator

Bayesian Time Series Models for the Analysis of International Conflict

Patrick T. Brandt National Science Foundation, SBES, Political Science \$312,334 (January 2004-December 2006)

Pamela Brandwein, Associate Professor, Sociology and Government and Politics B.A., University of Michigan, 1986 M.A., Northwestern University, 1988 Ph.D., Northwestern University, 1994

Articles in Edited Volumes

The *Civil Rights Cases* and the Lost Language of State Neglect Pamela Brandwein *The Supreme Court in American Political Development*, edited by Ronald Kahn and Ken I. Kersch. Lawrence: University Press of Kansas (November 2005)

Studying the Careers of Knowledge Claims: Bringing Science Studies to Legal Studies Pamela Brandwein Interpretation & Method: Empirical Research Methods and the Interpretive Turn, edited by Dvora Yanow and Peregrine Schwartz-Shea M. E. Sharpe (October 2005)

Timothy M. Bray, Assistant Professor, Criminology B.S., University of Missouri, St. Louis, 1994 M.A., University of Missouri, St. Louis, 1998 Ph.D., University of Missouri, St. Louis, 2003

Articles in Edited Volumes

Justice by Geography: Racial Disparity and Juvenile Courts Timothy M. Bray, Lisa L. Sample and Kimberly Kempf-Leonard Our Children, Their Children: Confronting Race and Ethnic Differences in American Criminal Justice, edited by Darnell Hawkins and Kimberly Kempf-Leonard Chicago: University of Chicago Press (2005)

Grants Awarded and Continuing: Principal Investigator

Understanding Racial Profiling in Illinois Timothy M. Bray Illinois State Police \$15,646.67 (May 2005-May 2007)

Ron Briggs, Professor, Geography and Political Economy

B.A., University of Southampton, England, 1966

M.A., The Ohio State University, 1969

Ph.D., The Ohio State University, 1972

Grants Awarded and Continued: Principal Investigator

Waste to Energy: Strategic Geographic Planning Tool Development, Phase II Co-PI's: Kevin Curtin, Fang Qiu, Ronald Briggs Environmental Protection Agency, \$102,000 (2005-2006)

Waste to Energy: Strategic Geographic Planning Tool Development Ron Briggs Co-PI's: Ronald Briggs, Kevin Curtin, Fang Qiu Environmental Protection Agency, \$65,000 (2004-2005)

Professional Services Agreement for GIS Data Development Ronald Briggs Collin County, \$15,000 (2005-2006)

Professional Services Agreement Ron Briggs City of Allen, Texas \$3,000 (2005-2006)

Thomas L. Brunell, Associate Professor, Political Science B.A., University of California, Irvine, 1991 M.A., University of California, Irvine, 1993 Ph.D., University of California, Irvine, 1997

Articles in Refereed Journals

Partisan Politics: The Impact of Party in the Confirmation of Minority and Female Federal Court Nominees Lisa A. Solowiej, Wendy L. Martinek and Thomas L. Brunell *Party Politics* **11** (2005) 557-577

The Relationship Between Political Parties and Interest Groups: Explaining Patterns of PAC Contributions to Candidates for Congress Thomas L. Brunell *Political Research Quarterly* **58** (2005) 681-688

Articles in Edited Volumes

The Art of the Dummymander: The Impact of Recent Redistrictings on the Partisan Makeup of Southern House Seats Bernard Grofman and Thomas L. Brunell *Redistricting in the New Millenium*, edited by Peter F. Galderisi Lanham MD: Lexington Books (2005) 183-199

Anthony Champagne, Professor, Government and Political Economy B.A., Millsaps College, 1969 M.A., University of Illinois, 1971 Ph.D., University of Illinois, 1973

Authored Books

We the People (Texas Edition) Benjamin Ginsberg, Theodore J. Lowi, Margaret Weir, Anthony Champagne, John Forshee, Edward J. Harpham New York: W.W. Norton Third Edition, 2005) 1095 pp.

Articles in Refereed Journals

Tort Reform and Judicial Selection Anthony M. Champagne *Loyola of Los Angeles Law Review* 38 (2005) 1483-1515

Harold D. Clarke, Ashbel Smith Professor, Political Science

B.A., University of Western Ontario, 1966 M.A., University of Western Ontario, 1967 Ph.D., Duke University, 1971

Articles in Refereed Journals

Men, Women and the Political Economy of Presidential Approval Harold D. Clarke, Marianne C. Stewart, Michael Ault and Euel Elliott *British Journal of Political Science* **35** (2005) 31-51

Too Close to Call: The 2004 Canadian Federal Election Harold D. Clarke, Allan Kornberg, Tom Scotto and John MacLeod *PS: Political Science & Politics* **38** (2005)

Articles in Edited Volumes

The Issue Agenda and Voting in 2005 Paul Whiteley, Marianne C. Stewart, David Sanders and Harold D. Clarke *Britain Votes 2005*, edited by Pippa Norris and Christopher Wlezien Oxford: Oxford University Press (2005) 146-161

Presidential Approval Harold D. Clarke, Marianne C. Stewart and Christopher *Polling America: An Encyclopedia of Public Opinion*, edited by Samuel J. Best and Benjamin Radcliff Westport, CT: Greenwood Press (2005)

Choosing Canada: The 1995 Quebec Sovereignty Referendum, with an Afterword by the authors

Harold D. Clarke and Allan Kornberg

Quantitative Methods in Practice: Readings from PS, reprinted and edited by DavidA. Rochefort, Washington, D.C.: Congressional Quarterly Press (2005)

Grants Awarded and Continued: Principal Investigator

Request for Additional Funds for Including Electoral Method Questions, Ethnic Minority Booster, and Northern Ireland Sample in the 2005/06 British Election Study

David Sanders, Paul Whiteley, Harold D. Clarke and Marianne C. Stewart The Electoral Commission (United Kingdom) research grant £95,000 (2005)

Tender for Consulting, Developing a Specification for, and Overseeing Collection and Deposit of Data for The 2005/06 British General Election Study

David Sanders, Paul Whiteley, Harold D. Clarke and Marianne C. Stewart Economic and Social Research Council (United Kingdom) £925,401 (est. \$1,729,574) (2005-07)

Government Performance, Valence Judgments, and The Dynamics of Party Support Harold D. Clarke National Science Foundation (USA) \$387,959 (2004-2007)

Electoral Choice and Party Support in Contemporary Canada: Changing Choices and Rival Models Harold D. Clarke and Allan Kornberg National Science Foundation (USA) \$155,000 Kevin M. Curtin, Assistant Professor, Geographic Information Science B.A., University of Illinois, 1994 M.A., University of Illinois, 1995 Ph.D., University of Californi, Santa Barbara, 2002

Articles in Edited Volumes

Integrating GIS and Maximal Covering Models to Determine the Optimal Spatial Distribution of Police Patrol Areas K.M. Curtin, F. Qiu, K. Hayslett-McCall, and T. M. Bray *Geographic Information Systems and Crime Analysis*, edited by Fahui Wang Idea Group Publishing. (2005)

Distance K.M. Curtin *Encyclopedia of World Geography*, edited by Robert W. McColl Facts on File, Inc. (2005)

Direction K.M. Curtin *Encyclopedia of World Geography*, edited by Robert W. McColl Facts on File, Inc. (2005)

Elevation K.M. Curtin *Encyclopedia of World Geography*, edited by Robert W. McColl Facts on File, Inc. (2005)

Italy K.M. Curtin *Encyclopedia of World Geography*, edited by Robert W. McColl Facts on File, Inc. (2005)

Articles in Conference Proceedings

Linear Referencing as a Process: Moving beyond data models and objects K.M. Curtin and G. Nicoara *Proceedings of the GIS Planet International Conference on Geographic Information* Estoril, Portugal: (May 2005)

Determining Optimal Police Patrol Areas with Maximal Covering Models K.M. Curtin, K. Hayslett-McCall and F. Qiu *52nd Annual Conference, North American Meetings of the RSAI*

Las Vegas, NV: (November 2005)

Grants Awarded and Continued: Principal Investigator

Waste to Energy: Strategic Geographic Planning Tool Development Kevin M. Curtin Co-Principal Investigator Environmental Protection Agency, Region 6 \$65,421 (10/01/04-01/01/06)

Linear Referencing as a Process Kevin M. Curtin Intergraph Corporation \$5,000 + \$168,000 in software and support (7/12/05-7/12/07)

Waste to Energy: Strategic Geographic Planning Tool Development: Phase II Kevin M. Curtin Environmental Protection Agency, Region 6 \$110,000 (10/01/05-10/01/06)

Collin County Taskforce on Indigent Healthcare Kevin M. Curtin Collin County \$155,183 (2005)

Lloyd Jeffry Dumas, Professor, Economics and Political Economy

B.A., Columbia College, 1967 M.S., Columbia University, 1968 Ph.D., Columbia University, 1972

Articles in Edited Volumes

Economic Conversion, Demobilization and Reintegration Lloyd J. Dumas UNESCO Encyclopedia of Life Support Systems: Peace Processes, edited by D. Fischer Geneva: UNESCO (2005)

Grants Awarded and Continued: Principal Investigator

Building Accountability into International Development Advising in an Age of Diffused Governance Lloyd J. Dumas and Janine Wedel Ford Foundation Grant \$232,333 (2005-2006) Catherine C. Eckel, Professor, Economics

B.S., Virginia Commonwealth University, 1977 Ph.D., University of Virginia, 1983

Articles in Refereed Journals

An Experimental Test of the Crowding Out Hypothesis C. Eckel, P. Grossman and M. Johnston *Journal of Public Economics* **89(8)** (2005) 1543-1560

Managing Diversity by Creating Team Identity C. Eckel and P. Grossman *Journal of Economic Behavior and Organization* **58** (**3**) (2005) 371-392

Saving decisions of the working poor: short- and long-term horizons C. Eckel, K. Johnson and C. Montmarquette *Research in Experimental Economics* **10** (2005) 219-260.

Bobbing for Widgets: Compensating Wage Differentials C. Eckel, M. McInnes, S. Solnick, et al. *Journal of Economic Education* **36(2)** (2005)129-138

Grants Awarded and Continued: Principal Investigator

Incorporating Experimental Measures of Preferences into Survey Research C. Eckel, with Co-PIs V. Joseph Hotz, Cathleen Johnson, David Levine, Cesar Martinelli, Susan Parker, Luis Rubalcava, Seth Sanders, Graciela Teruel, Duncan Thomas, William Zame John D. and Catherine T. MacArthur Foundation, \$113,000 (2005-2006)

Euel Elliott, Professor, Government, Politics and Political Economy

B.A., Virginia Polytechnic Inst. and State University, 1973 M.A., Radford University, 1976

M.A., Virginia Polytechnic Inst. and State University, 1982 Ph.D., Duke University, 1987

Articles in Refereed Journals

Men, Women and the Dynamics of Presidential Approval Harold D. Clarke, Marianne Stewart, Michael Ault and Euel Elliott *British Journal of Political Science* **35** (February 2005) 31-51

Beyond Gratz and Grutter: The Future of Affirmative Action in the

Aftermath of the Michigan Decisions Eucl Elliott and Andrew Ewoh *Review of Policy Research* **22** (July 2005) 541-553

 Simon M. Fass, Associate Professor, Political Economy B.Arch., University of British Columbia, 1970
 M.A., University of California, Los Angeles, 1973
 Ph.D., University of California, Los Angeles, 1978

Articles in Edited Volumes

Chad: Governance by the Grassroots Simon Fass and Gerrit Desloovere Local Governance in Africa: The Challenges of Democratic Decentralization, edited by Dele Oluwu and James Wunsch Lynne Rienner. Boulder, CO (2005) 155-180

 Daniel A. Griffith, Ashbel Smith Professor, Geospatial Information Science B.S., Indiana University of Pennsylvania, 1970
 M.A., Indiana University of Pennsylvania, 1972
 Ph.D., University of Toronto, 1978

Articles in Refereed Journals

Evaluation of environmental data for identification of anopheles (diptera: culicidae) aquatic larval habitats in Kisumu and Malindi, Kenya B. Jacob, K. Arheart, D. Griffith, C. Mbogo, A. Githeko, J. Regens, J. Githure, R. Novak and J. Beier *Journal of Medical Entomology* **42** (2005) 751–755

Effective geographic sample size in the presence of spatial autocorrelation D. Griffith *Annals, Association of American Geographers* **95** (2005) 740-760

A comparison of four analytical disease mapping techniques as applied to West Nile Virus in the coterminous United States D. Griffith International Journal of Health Geographics **4/18** (2005) 1-14

Articles in Edited Volumes

Spatial autocorrelation D. Griffith

Encyclopedia of Social Measurement, **Vol. 3**, edited by K. Kempf-Leonard San Diego, CA: Academic Press (Elsevier) (2005) 581-590

Locational decision making D. Griffith and A. Lea *Encyclopedia of Social Measurement*, **Vol. 2**, edited by K. Kempf-Leonard San Diego, CA: Academic Press (Elsevier) (2005) 559-575

Grants Awarded and Continued: Principal Investigator

Collaborative proposal: Approximating Eigensystems of Matrices Used in Spatial Analysis (DMS 0611883) D. Griffith and M. Tiefelsdorf National Science Foundation/ Division of Mathematical Sciences and Methodology, Measurement & Statistics Programs \$159,778 + \$5,000 UM/UTD (2004-2006)

Geography-Based Exposure Assessment for Urban Metals (BCS 0552588): D. Griffith National Science Foundation/Geography & Regional Science/Methodology, Measurement & Statistics Programs \$420,000 + \$7,500 SU/UM/UTD grant + \$11,725 NSF-REU (\$35,097 + \$2,500 UTD grant transfered) (2002-2006)

Edward J. Harpham, Professor, Government and Political Economy Director of Collegium V, Undergraduate Studies B.A., Pennsylvania State University, 1973 M.A., Cornell University, 1976 Ph.D., Cornell University, 1980

Authored Books

We the People. Texas Edition Fifth Edition Theodore J. Lowi, Benjamin Ginsberg, Margaret Weir, Anthony Champagne, Edward J. Harpham and John Forsche W.W. Norton. 500 Fifth Avenue. New York, New York. (2005) 1095 p.

Wendy L. Hassett, Senior Lecturer, Public Affairs B.A., Auburn, 1991 M.P.A., Auburn University, 1993 Ph.D., Auburn University, 2003

Articles in Refereed Journals

The ASPA Journals: Who is Publishing? Douglas J. Watson, Wendy L. Hassett and Donna M. Handley *Journal of Public Affairs Education*, **11** (1) 2005

Capitalizing on Student Workers: The City of Auburn's Student Employment Programs Douglas J. Watson and Wendy L. Hassett *Review of Public Personnel Administration*, **25** (**2**) (2005)

Financial Distress and Municipal Bankruptcy: The Case of Prichard,
Alabama
Douglas J. Watson, Donna M. Milam and Wendy L. Hassett *Journal of Public Budgeting, Accounting & Financial Management*, **17** (2) (2005)

Karen L. Hayslett-McCall, Assistant Professor, Crime and Justice

B.S., Kansas State University, 1991M.S., Emporia State University, 1997M.A., The Pennsylvania State University, 1999Ph.D., The Pennsylvania State University, 2002

Articles in Edited Volumes

Using Location Science and Geographic Information Systems to Determine the Optimal Spatial Distribution of Police Patrol Areas Kevin M. Curtin, Fang Qiu, Karen L. Hayslett-McCall and Timothy M. Bray *Geographic Information Systems and Crime Analysis*, ed. by Fahui Wang Hershey, PA: Idea Group (2005)

The Fifth Amendment Karen L. Hayslett-McCall The Encyclopedia of Criminal Justice in the United States, edited by Kent Rasmussen Salem Press (2005)

Donald A. Hicks, Professor, Political Economy and Public Policy B.A., Indiana University, 1969 Ph.D., University of North Carolina, Chapel Hill, 1976

Grants Awarded and Continued: Principal Investigator

Literacy Initiative: What Works? Program Donald Hicks North Texas Future Fund \$18,500 (2004-05)

Jennifer S. Holmes, Associate Professor, Government and Political Economy B.A., University of Chicago, 1993 Ph.D., University of Minnesota, 1998

Articles in Conference Proceedings

Ballots and Bullets Jennifer Holmes and Sheila Amin Gutiérrez de Piñeres *European Consortium for Political Research's Latin America and Elections workshop,* Granada Spain (April 2005)

A Sub-national Study of Insurgency: The FARC in Colombia Jennifer Holmes and Sheila Amin Gutiérrez de Piñeres *Midwest Association of Latin American Studies*, St. Louis, MO, (November 2005)

Bruce A. Jacobs, Associate Professor, Crime and Justice B.A., Duke University, 1989
M.A., University of Toledo, 1991
PhD., University of Southern California, 1994

Articles in Edited Volumes

Danger and criminological fieldwork Bruce A. Jacobs *The Handbook of Field Research*, edited by Dick Hobbs and Richard Wright Newbury Park: Sage Publications (December 2005)

 Paul A. Jargowsky, Associate Professor, Political Economy A.B., Princeton University, 1980
 M.P.P., Harvard University, 1986
 Ph.D., Harvard University, 1991

Articles in Refereed Journals

Response to George Galster: Consequences from the redistribution of urban poverty during the 1990s Paul A. Jargowsky *Economic Development Quarterly* **19** (2005) 133-135

Articles in Edited Volumes

Is Suburban Sprawl a Juvenile Justice Issue? Paul A. Jargowsky, Robert Crutchfield and Scott Desmond *Our Children, Their Children: Confronting Race and Ethnic Differences in American Criminal Justice*, edited by Darnell Hawkins and Kimberly Kempf-Leonard Chicago: John D. and Catherine T. MacArthur Foundation (2005) 167-201

The Ecological Fallacy Paul A. Jargowsky *The Encyclopedia of Social Measurement*, edited by Kimberly Kempf-Leonard San Diego, California: Academic Press (2005) 715-722

Omitted Variable Bias Paul A. Jargowsky *The Encyclopedia of Social Measurement*, **Vol. 2**, edited by Kimberly Kempf-Leonard San Diego, California: Academic Press (2005) 919-924

Descriptive and Inferential Statistics Paul A. Jargowsky and Rebecca Yang *The Encyclopedia of Social Measurement*, **Vol. 1**, edited by Kimberly Kempf-Leonard San Diego, California: Academic Press (2005) 659-658

Kimberly Kempf-Leonard, Professor, Crime and Justice Studies,

Political Economy and Sociology

B.S., University of Nebraska, 1980

M.S., Pennsylvania State University, 1982

M.A., University of Pennsylvania, 1983

Ph.D., University of Pennsylvania, 1986

Edited Books

Our Children, Their Children: Confronting Race and Ethnic Differences in American Criminal Justice Darnell F. Hawkins & Kmberly Kempf-Leonard, editors Chicago: University of Chicago Press, 459 p.

Encyclopedia of Social Measurement Kimberly Kempf-Leonard, editor San Francisco, CA: Elsevier/Academic Press. 3008 p. (VI 945p., VII 963p., VIII 1100 p.)

Articles in Edited Volumes

Justice by Geography: Racial Disparity and Juvenile Courts Timothy Bray, Lisa Sample and Kimberly Kempf-Leonard *Our Children, Their Children: Confronting Race and Ethnic Differences in American Criminal Justice*, edited by Darnell F. Hawkins & Kimberly Kempf-Leonard Chicago: University of Chicago Press. (2005) 270-299

Introduction to Confronting Racial and Ethnic Differences in Juvenile Justice

Darnell F. Hawkins and Kimberly Kempf-Leonard *Our Children, Their Children: Confronting Race and Ethnic Differences in American Criminal Justice*, edited by Darnell F. Hawkins & Kimberly Kempf-Leonard Chicago: University of Chicago Press. (2005) 1-22

Toward Remedial Social Policy

Kimberly Kempf-Leonard and Darnell F. Hawkins *Our Children, Their Children: Confronting Race and Ethnic Differences in American Criminal Justice*, edited by Darnell F. Hawkins & Kimberly Kempf-Leonard Chicago: University of Chicago Press. (2005) 428-448

Economists in Criminology: Part of the Team. *The Common Subject of Crime: A Multi-Disciplinary Approach*, edited by Susan Guarino-Ghezzi and A. Javier Trevino Cincinnati, OH: Anderson (2005) 35-46

Gender Differences in Delinquency Career Types and the Transition to Adult Crime Kimberly Kempf-Leonard and Paul E. Tracy *It's a Crime: Women and Justice*, 4th edition, edited by Rosalyn Muraskin. NY: Prentice Hall. 820-846 (reprinted 2005)

Grants Awarded and Continued: Principal Investigator

Female-specific services: Obstacles and opportunities Kimberly Kempf-Leonard and Bruce A. Jacobs (Co-PI) Office of the Governor, State of Texas \$71,807 (2004-2005)

 L. Douglas Kiel, Professor, Public Administration and Political Economy B.A., Austin College, 1978
 M.P.A., University of Oklahoma, 1984
 Ph.D., University of Oklahoma, 1986

Article in Edited Journal

Chaos in Social Systems: Assessment and Relevance L. Douglas Kiel *Understanding Change: Models, Methodologies and Metaphor*, edited by Andreas Wimmer and Reinhard Kossler London: Palgrave, 2005

Murray J. Leaf, Professor, Anthropology and Political Economy B.A., Reed College, 1961 M.A., University of Chicago, 1963 Ph.D., University of Chicago, 1966

Articles in Refereed Journals

Walter C. (Terry) Neale, 1925-2004 Murray J. Leaf and George Rosen *Journal of Asian Economics*, **16 (4)** (July-August, 2005) 581-589

Articles in Edited Volumes

The Message is the Medium: Language, Culture and Informatics Murray J Leaf *Cybernetics and Systems: an International Journal*, the journal of the Austrian Society for Cybernetics Studies, Vienna edited by Dwight Read, Michael Fischer, and Stephen Lyon Taylor and Francis **36(8)** (November, 2005) 903-917

Romanticism, Meaning, and Science Murray J Leaf *Language, Culture and the Individual: A Tribute to Paul Friedrich,* edited by Catherine O'Neil, Mary Scoggin and Kevin Tuite Munich Lincom Europa (2005) Law and Society Murray J Leaf *Encyclopedia of Anthropology*, edited by James Birx Sage Reference (2005)

Articles in Conference Proceedings

The physical farm budget: simulating an indigenous simulation Murray J. Leaf Presented in a panel titled: Not Just Heuristic: Simulation models as experiments. *Meetings of the Society for Anthropological Sciences*, Santa Fe, NM, (February 23-27, 2005)

Bandkeramik, Jats, Anabaptists and Amish: the Persistence of Agricultural Tribes Murray J. Leaf Paper presented in invited panel: Intensive Agricultural Communities I: Independence autonomy and community. *Annual Meetings of the American Anthropological Association*, Washington D. C. (November 30-Dec. 4, 2005)

Grants Awarded and Continued: Principal Investigator

Survey of Governance Organizations of Texas Universities Murry J. Leaf Texas Council of Faculty Senates \$500 (December 2005-December 2006)

Magnus Lofstrom, Assistant Professor, Economics and Political Economy B.A., University of California, San Diego, 1992 M.A., University of California, San Diego, 1998 Ph.D., University of California, San Diego, 1999

Grants Awarded and Continued: Principal Investigator

Hispanic Self-employment: A Dynamic Analysis Magnus Lofstrom The Ewing Marion Kauffman Foundation \$24,766 (January 2005-August 2006)

Does the GED Increase Postsecondary Educational Attainment? Magnus Lofstrom and John Tyler National Center for the Study of Adult Learning and Literacy \$15,913 (July-August 2005) Is the GED an Effective Route to Postsecondary Education? Magnus Lofstrom and John Tyler National Center for the Study of Adult Learning and Literacy \$92,361 (October 2005-August 2006)

Susan W. McElroy, Associate Professor, Economics and Education Policy

A.B., Princeton University, 1984 A.M., Stanford University, 1985 A.M. Stanford University, 1992 Ph.D., Stanford University, 1996

Articles in Refereed Journals

Teenage Childbearing and Its Life Cycle Consequences: Exploiting a Natural Experiment Susan McElroy, V. Joseph Hotz and Seth G. Sanders *Journal of Human Resources*, (Summer 2005)

James W. Marquart, Professor, Crime and Justice

B.S., Western Illinois University, 1976 M.A., Kansas State University, 1978 Ph.D., Texas A&M University, 1983

Articles in Refereed Journals

In Between Adolescence and Adulthood Chad Trulson, James W. Marquart, Janet Mullings and Tory Caeti Journal of Youth Violence and Juvenile Justice, **3** (2005) 355-387

Bringing Victims in, but How Far? James W. Marquart *Criminology and Public Policy*, **4** (2005) 1501-1504.

Understanding the Power of Social Contexts on Criminal Justice Institutions James W. Marquart *Journal of Criminal Justice Education*, **16** (2005) 217-225

Grants Awarded and Continued: Principal Investigator

Evaluation of Johnson v. California, "The Impact of Racial Desegregation in the California Prison System"

James W. Marquart and Chad Trulson Funded by the California Prison System, \$254,000 (5/05-12-07)

James C. Murdoch, Professor, Economics and Political Economy B.S., Grand Valley State College, 1978 Ph.D., University of Wyoming, 1982

Grants Awarded and Continued: Principal Investigator

2005 DCAD Ratio Study Jams C. Murdoch Dallas Central Appraisal District, \$25,000 (September 2005 – December 2005)

Clint W. Peinhardt, Assistant Professor, Political Science B.A., Birmingham-Southern College, 1993 M.A., Institute of Social Studies, The Hague, 1996 Ph.D., The University of Michigan, 2004

Articles in Refereed Journals

Governing Spending and Public Support for Trade in the OECD: An Empirical Test of the Embedded Liberalism Thesis Jude Hays, Sean Ehrlich and Clint Peinhardt *International Organization* **59** (Spring 2005) 473-494

Articles in Conference Proceedings

Emerging Market Financial Liberalization: A Cross-country Study of Portfolio Inflow Restrictions Clint Peinhardt *American Political Science Association Annual Meeting* Washington, D.C., (August 2005)

Sheila Amin Gutiérrez de Piñeres, Associate Professor,

Economics and Political Economy B.A., Texas A&M University, 1988 M.A., University of Chicago, 1989 Ph.D., Duke University, 1992

Articles in Conference Proceedings

Ballots and Bullets Jennifer Holmes and Sheila Amin Gutiérrez de Piñeres *European Consortium for Political Research's Latin America and Elections workshop*, Granada Spain (April 2005)

A Sub-national Study of Insurgency: The FARC in Colombia Jennifer Holmes and Sheila Amin Gutiérrez de Piñeres *Midwest Association of Latin American Studies*, St. Louis, MO, (November 2005)

Grants Awarded and Continued: Principal Investigator

First Generation College Student Grant from Sheila Amin Gutiérrez de Piñeres Texas Higher Education Coordinating Board (\$25,000) (2005)

Fang Qiu, Associate Professor, Geographic Information Sciences
 B.Sc., East China Normal University, 1990
 M.Sc., Chinese Academy of Sciences, 1993
 Ph.D., University of South Carolina, 2000

Articles in Refereed Journal

Issues on the Use of Variogram-Based Feature Vectors in Content Based Image Retrieval Zhixiao Xie and Fang Qiu *The Florida Geographer*, **36** (2005) 41-46

Articles in Edited Volumes

Integrating Geographic Information Systems and Maximal Covering Models to Determine Optimal Police Patrol Areas Kevin M. Curtin, Fang Qiu, Karen. L. Hayslett-McCall, and Tim. M. Bray *Geographic Information Systems and Crime Analysis*, edited by Fahui Wang Hershey, PA: Idea Group, (2005) 214-235

Articles in Conference Proceedings

Spatial Contextual Noise Removal for Post-classification Smoothing of Remotely Sensed Images Yu Qian, Kang Zhang and Fang Qiu *Proceedings of the 20th Annual ACM Symposium on Applied Computing* Santa Fe, AR, USA, ACM Press, (13-17 March 2005) 524-528

Locating Brown Field with Fuzzy Weighted Overlay Fang Qiu American Association of Geographers Annual Conference, Denver, Colorado, (April 5- 9, 2005)

The Effects of Air Pollution on the Rates of Asthma Admission to the Los Angles Hospitals Guang Xiao and Fang Qiu *11th International Medical Geography Symposium* Fort Worth, TX, July 5 - 10, 2005

Grants Awarded and Continued: Principal Investigator

Mobilization of NASA EOS Data and information through Web services and knowledge management technology for higher-education teaching and research

F. Qui

NASA EOS Higher-Education Alliance: \$70,000 (2/1/2004-1/31/2009)

Genetic, Behavioral and Lifestyle Risk Factors for Complications of Type 2 Diabetes in a Mexican American Population in the Lower Rio Grande Valley Fang Oiu

Centers for Disease Control and Prevention (CDC: 1 R01 DP000210-01). \$42,687 (8/1/2005-8/1/2006)

NASA EOS Higher-Education Alliance: Mobilization of NASA EOS Data and Information through Web Services and Knowledge Management Technology for Higher Education Teaching and Research F. Qiu National Aeronautics and Space Administration (NASA: NNG04GE61A). \$70,000 (2/1/2004-1/31/2009)

Scott Robinson, Assistant Professor, Government and Political Economy

B.A., Texas A&M University, 1997 M.A., Texas A&M University, 1999 Ph.D., Texas A&M University, 2001

Grants Awarded and Continued: Principal Investigator

Emergency Response and the Impact of on Texas Public Schools Kenneth J. Meier, Scott E. Robinson, and Alisa Hicklin Co-PIs NSF CMS – 0553124 \$5909 (2005)

 Richard K. Scotch, Professor, Sociology, Public Policy and Political Economy B.A., University of Chicago, 1973 M.A., Harvard University, 1975 Ph.D., Harvard University, 1982

Grants Awarded and Continued: Principal Investigator

Study Of Crisis Relief Programs in Dallas Area and Exemplary Programs Nationally Richard Scotch Rockwall Helping Hands and consortium of North Texas United Way \$28,000 (July 2004 – August 2005)

Study of Indigent Health Care Needs and Support Citizen Task Force Richard Scotch (PI) (Doug Watson, Brenda McCoy, Kevin Curtin, Charles McConnel) Collin County \$155,000 (March 2005 – August 2006)

Sheryl L. Skaggs, Assistant Professor, Sociology

B.A., University Center at Tulsa, 1988 M.A., University of Texas at Arlington, 1997 Ph.D., North Carolina State University, 2001

Articles in Refereed Journals

Making Change in Female Supermarket Managerial Representation: Examining the Role of Legal, Institutional, and Political Environments Sheryl Skaggs *Research in Political Sociology* **14** (2005) 181-209

Marianne C. Stewart, Professor, Government, Politics and Political Economy

B.A., University of Windsor, 1976 M.A., University of Windsor, 1980 Ph.D., Duke University, 1986

Articles in Refereed Journals

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Michael Tiefelsdorf, Associate Professor, Geographical Information Sciences
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 M.S., Free University of Berlin, 1988
 Ph.D., Wilfrid Laurier University, 1997

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Paul Tracy, Professor, Sociology

A.B., Rhode Island College, 1972 M.A., University of Pennsylvania, 1975 Ph.D., University of Pennsylvania, 1978

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 M.A., University of Pittsburgh, 1979
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Douglas J. Watson, Professor, Public Administration

B.A., University of Maryland, 1967 M.P.A., University of Georgia, 1972 Ph.D., Auburn University, 1992

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Carole J. Wilson, Assistant Professor, Political Science

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M.A., University of North Carolina, Chapel Hill, 1998

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