D. Todd Griffith, PhD
Associate Professor

Mechanical Engineering Department, Erik Jonsson School of Engineering and Computer Science
The University of Texas at Dallas
800 West Campbell Road, Mail Station EC-38, Richardson, Texas 75080-3021
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Education

Ph.D., Aerospace Engineering
Texas A&M University, December 2004
Dissertation: *New Methods for Estimation, Modeling, and Validation of Dynamical Systems Using Automatic Differentiation*
Advised by Dr. John L. Junkins, Distinguished Professor of Aerospace Engineering

M.S., Mechanical Engineering
University of Kentucky, May 2000
Thesis: *Experimental and Analytical Modal Analyses of an Inflated Thin Film Torus*
Advised by Dr. John A. Main

B.S., Mechanical Engineering
University of Kentucky, May 1998 (with honors)

B.S., Physics
Morehead State University, May 1998 (with honors)

Professional Interests

Disciplinary Research Interests: Structural Dynamics, Aero-elastics, Dynamics & Control, Structural Health Monitoring & Prognostics Management, Design & Optimization, Modeling, Simulation & Validation of Dynamical Systems, Experimental and Analytical Methods

Application and Topical Interests: Renewable Energy Technology, Wind Energy Technology, Marine Hydrokinetic Technology, Concentrating Solar Power, Aerospace Structures, Novel Energy and Space Systems, Systems Engineering, Inflated Aerospace Structures, Structural Analysis & Optimization of Complex Systems, Reduced Order Modeling, Model Validation and Uncertainty Quantification

Chronology of Professional and Research Experience

August 2017-present — ***University of Texas at Dallas***
Associate Professor, Mechanical Engineering

January 2005 to August 2017	***Sandia National Laboratories, Albuquerque, New Mexico*** **Principal Member of the Technical Staff, Wind and Water Power Technologies Department (December 2011 – Present); Senior Member of the Technical Staff, Structural Dynamics Research and Analytical Structural Dynamics Departments (January 2005 - December 2011)** *Technical Lead for Sandia's Offshore Wind Energy Program (2011-2017)*
June 2014 to July 2014	***Erasmus Mundus EWEM Guest Scholar*** **European Wind Energy Masters (EWEM) Program** **Delft University of Technology (TU-Delft), Delft, the Netherlands**
August 2000 to December 2004	***Ph.D. Studies, Graduate Research Assistant to Dr. John L. Junkins*** **Texas A&M University, Department of Aerospace Engineering,** **College Station, TX**
June 2000 to August 2000	***ICASE Summer Visiting Researcher*** **NASA Langley Research Center, Hampton, VA** **(Formerly) Institute for Computer Applications in Science and Engineering,** **(Currently) part of National Institute for Aerospace (NIA)**
June 1999 to July 1999	***NASA Graduate Student Researchers Program (GSRP)*** ***Summer Visiting Researcher*** **NASA Marshall Space Flight Center, Huntsville, AL**
August 1998 to June 2000	***M.S. Studies, Graduate Research Assistant to Dr. John A. Main*** **University of Kentucky, Department of Mechanical Engineering, Lexington, KY**
May 1997 to August 1998	***Undergraduate Research Assistant to Dr. John A. Main*** **University of Kentucky, Department of Mechanical Engineering, Lexington, KY**
August 1995 to May 1996	***NASA/JOVE Fellow*** **Morehead State University, Department of Mathematics, Morehead, KY**

Summary of Research Publications (details provided starting on Page 7)

Google Scholar (link): Total Citations 1056 (739 since 2012); h-index: 17 (13 since 2012); i10-index: 35 (26 since 2012) – as of August 23, 2017.

Journal Articles: published 16 journal articles.

Wind Energy	AIAA Journal	Wind Engineering
Journal of Solar Energy Engineering	Journal of Computational and Nonlinear Dynamics	Philosophical Transactions of the Royal Society A
Journal of the Astronautical Sciences	Journal of Guidance, Control, and Dynamics	Journal of Aerospace Engineering

Conference Papers: 58 archival conference papers/proceedings (many peer-reviewed)

Conference Presentations (additional; no proceedings paper): 34 presentations (26 invited seminar and keynote presentations with many international)

Major Technical Reports: 22 published technical reports

Advisor and Mentor Experience (Professional)

Advisor in student research at Sandia National Laboratories:
24 students to date (9 PhD, 12 MS, and 3 undergraduate)

Students from the following universities:
US Universities (12): Cornell University, Texas A&M University, University of New Mexico, New Mexico Tech, Georgia Tech, University of Wisconsin-Madison, Purdue University, Iowa State University, University of Texas-Austin, Vanderbilt University, Brigham Young University, University of Michigan.
International Universities (5): Delft University of Technology (TU-Delft, the Netherlands), University of Bristol (UK), University of Stuttgart (Germany), Politecnico di Milano (Italy), Danish Technical University (DTU Wind Energy, Denmark).

Received Individual Service Award from Sandia for excellence in mentoring (2010).

Committee Member and Reader:

- MS student (Delft University of Technology, the Netherlands), June 2014, Committee Member.
- PhD student (Georgia Tech), November 2014, Committee Member.
- PhD student (Politecnico di Milano, Italy), November 2014, Reader.
- PhD student (Danish Technical University, Denmark), November 2015, Committee Member.
- MS Student & Fulbright Scholar (Danish Technical University), June 2016, Committee Member.

Honors and Awards

- **Best Paper Award**, 2014 ASME OMAE Conference (33rd International Conference on Ocean, Offshore, and Arctic Engineering), Ocean Renewable Energy Symposium; for paper titled "Hydrodynamic Module Coupling in the Offshore Wind Energy Simulation (OWENS) Toolkit".
- **Guest Scholar**, Erasmus Mundus, European Wind Energy Masters (EWEM) Program, Delft University of Technology (TU-Delft), June-July, 2014.
- **Individual Performance Award** (special recognition for organizing and chairing the 2014 Sandia Wind Turbine Blade Workshop), August 2014.
- **Associate Fellow**, AIAA (American Institute of Aeronautics and Astronautics), January 2014.
- **AIAA Distinguished Service Award**, for "bringing Wind Energy to the AIAA SDM Conference," 2013.
- **Individual Performance Award** (special recognition for organizing the 2012 Sandia Wind Turbine Blade Workshop), 2012.
- **Individual Performance Award** (special recognition for excellence in mentorship of junior staff and interns), Sandia National Laboratories, 2010.

- **Individual Performance Award** (special recognition for development of nonlinear model reduction tools), Sandia National Laboratories, 2006.
- **Recognition by the Spacecraft Technology Center** (a NASA Research Partnership Center), College Station, TX, for successful flight testing of the StarNav I payload hardware and software for the NASA STS-107 mission, 2003.
- **Recognition by the Boeing/Spacehab team** for real-time mission support at NASA Johnson Spaceflight Center during the NASA STS-107 mission, 2003.
- **Graduate Student Travel Award**, Texas A&M University, 2004.
- **National Defense Science and Engineering Graduate Fellowship**, Department of Defense, 2001-2004.
- **Sandia Excellence in Engineering Fellowship**, Sandia National Laboratories, 2002.
- **Texas Space Grant Graduate Fellowship**, Texas Space Grant Consortium, 2001-2002.
- **NASA Graduate Student Researchers Program (GSRP) Fellowship**, National Aeronautics and Space Administration, Proposal Title: "Investigating the Effect of Foam-Inflated Aerospace Structures on Attitude Control and Pointing," 1998-2000.
- **Student Flyer and Experiment Designer**, NASA Reduced Gravity Student Flight Opportunities "Vomit Comet", 1998.
- **Pi Tau Sigma (Mechanical Engineering Honor Society)**, 1997-present, served as President of University of Kentucky Chapter, 1998.
- **Election Officer**, State of Kentucky, 1998-2000.
- **NASA/JOVE (JOint VEnture) Fellowship**, National Aeronautics and Space Administration, 1995-1996.
- **Phi Kappa Phi (Honor Society)**, 1996-present.
- **Co-recipient of Pre-Engineering Student of the Year**, Morehead State University, 1995-1996.
- **Presidential Scholarship**, Morehead State University, 1993-1996.
- **Governor's Scholar Award**, Morehead State University, 1993-1996.
- **High School Valedictorian**

Professional Service and Synergistic Leadership Activities

Technical Committee Activities

- **ASME Wind Energy Technical Committee (Member and TC Chairman)**
    - Served as Technical Program Chair and organized the 32nd and 33rd ASME Wind Energy Symposium in 2014 and 2015
    - Member (2012-present)
    - Committee Chairman (2016-present)
- **AIAA Structural Dynamics Technical Committee (Member)**
    - Chair of Publications Sub-committee (2012-present); Responsible for TC newsletter and AIAA Aerospace America magazine year-in-review article
    - Member (2008-present)

Conference Organization and Service Activities

- **Executive Organizing Committee,** North American Wind Energy Academy (NAWEA) Symposium, To be held in Ames, IA, September 26-29, 2017.
- **Scientific Organizing Committee**, Wind Energy Science Conference 2017 (sponsored by European Academy of Wind Energy), Lyngy, Denmark, June 2017.

- **Scientific Organizing Committee**, The Science of Making Torque from Wind Conference (sponsored by European Academy of Wind Energy), Munich, Germany, October 2016, Co-organized "New concepts and configurations" track topic with Prof. P.W. Cheng (University of Stuttgart).
- **Reviewer and Track Organizing Committee**, American Wind Energy Association (AWEA) WINDPOWER national wind energy conference, Scientific Track (Innovative Components research session), May 2016, New Orleans, LA.
- **Executive Organizing Committee and Session Chair,** North American Wind Energy Academy (NAWEA) Symposium, June 2015, Blacksburg, VA, Session Chair for Controls and Offshore Wind Topics.
- **Session Organizer,** CAMX 2015, Topic: Composite Materials for Renewable Energy Applications, October 2015.
- **Organizing Committee**, American Wind Energy Association (AWEA) WINDPOWER national wind energy conference, Reviewer in Scientific Track (Innovative Components research session), May 2015, Orlando, FL.
- **Technical Program Chair**, organizer for the 33rd ASME Wind Energy Symposium (co-located with the AIAA SCITECH Conference), January 2015, Kissimmee, Florida.
- **Organizing Committee**, American Wind Energy Association (AWEA) WINDPOWER national wind energy conference, Reviewer in Scientific Track (Innovative Components research session), May 2014, Las Vegas, NV.
- **Technical Program Chair**, organizer for the 32nd ASME Wind Energy Symposium (co-located with the AIAA SCITECH Conference), January 2014, National Harbor, Maryland.
- **Organizing Committee**, American Wind Energy Association (AWEA) WINDPOWER national wind energy conference, Moderator in Scientific Track (Innovative Components research session), May 2013, Chicago, IL.
- **Developer and Organizer** of a new Research Track of Wind Energy Technology sessions at the AIAA Structures, Structural Dynamics, and Materials (SDM) Conference (2009 through 2013); ***received an AIAA Distinguished Service Award in April 2013 for this work***.
- **Co-organizer** of special sessions in Wind Energy for the International Modal Analysis Conference (2012 and 2013).
- **Co-organizer** of three special sessions on Wind Energy Technology for the 29th International Modal Analysis Conference (February 2011).
- **Co-organizer** of special sessions on "Wind Turbine Structural Dynamics Applications" and "Application of Operational Modal Analysis Techniques to Wind Turbines" for the 28th International Modal Analysis Conference (February 2010).
- **Lead Reviewer** for Wind Turbine Loads and Controls topic at the American Wind Energy Association (AWEA) WINDPOWER national wind conference, May 2011.
- **Session Chair, Reviewer and Moderator** for numerous conferences and workshops including ASME Wind Energy Symposium, SEM International Modal Analysis Conference, AIAA Structures, Structural Dynamics, and Materials Conference, 2004-Present.

Educational Programs and International Collaborations

- Erasmus Mundus European Wind Energy Masters (EWEM) Program; with TU-Delft; Associate Member and Sandia point of contact (2013-present).
- NSF IGERT program with Iowa State University; Dissertation projects and proposal reviewer (2011-2012).
- ACCIS Doctoral Study Program with University of Bristol; PhD student host and mentor (2013).
- Memorandum of Understanding with DTU Wind; lead for Sandia and point of contact for collaborations (2015).
- Marie Curie ETN doctoral training program; Associate Member (proposed for 2016).

Workshops Organization

- **Track Organizer**, 2016 Sandia Wind Turbine Blade Workshop, Albuquerque, New Mexico, August 2016, organized sessions on large blade technology.
- **Head of Scientific Program,** Euromech Vertical Axis Wind Turbine Symposium, to be held in Delft, the Netherlands, April 2016 (active).
- **Chairman and Organizer**, 2014 Sandia Wind Turbine Blade Workshop, Albuquerque, New Mexico, August 2014 (greater than 200 attendees with over 40 invited speakers from the wind energy industry).
- **Co-organizer**, Vertical Axis Wind Turbine (VAWT) Aero-elastic Modelling and Codes Workshop, Hosted at the Danish Technical University (DTU-Wind), Roskilde, Denmark, June 16-18, 2014.
- **Chairman and Organizer**, 2012 Sandia Wind Turbine Blade Workshop, Albuquerque, New Mexico, May 2012 (greater than 200 attendees with over 40 invited speakers from the wind energy industry).

Committees and Review Panels

- Invited to participate in National Science Foundation Graduate Fellowship Review Panel, 2013, 2014.
- US DOE 48C Tax Credit Industry Review Team (for DOE EERE), 2013.
- Numerous SBIR/STTR reviews at the request of the US DOE programs.
- Review of internal Sandia research initiatives including international programs.

Journal Article Reviewer

- Wind Energy
- AIAA Journal
- Renewable Energy
- Wind Engineering
- Solar Energy
- ASME Journal of Dynamic Systems, Measurement, and Control
- Sound and Vibration
- IEEE Transactions on Aerospace and Electronic Systems
- Mechanical Systems and Signal Processing
- Strain
- Structural Health Monitoring
- SPIE Optical Engineering

Project Leadership and Funding Awarded

- "50MW Segmented Ultra-light Morphing Rotors for Wind Energy," ARPA-E OPEN 2015 program, Project award ($3.6M total award, University of Virginia is lead institution), D.T. Griffith is Sandia Principal Investigator (PI) with $629K over 3 years (2016-2018).
- "Wind Loading on Solar Trackers," Leveraged Project sponsored by New Mexico Small Business Assistance Program, Principal Investigator, funding in calendar year 2016, $100,000.
- "High-resolution Modeling and Code Development for Offshore Wind Plants," with University of Minnesota, 2014-2015 (2 months of PI effort per year).
- "DOE System Performance Advancement for Marine Hydrokinetics," 2014-2017 (3 months of PI effort per year).

- "Innovative Deep-water Floating Offshore Vertical-Axis Turbines," 2013-2017, (6 months of PI effort per year)
- "Large Offshore Rotor Development," 2009-2014, (6 months of PI effort per year)
- "Structural Health and Prognostics Management for Offshore Wind Plants," 2011-2015 (4 months of PI effort per year)
- "Offshore Innovative Concepts," 2012-2013, (2 months PI effort per year)
- "Offshore Wind: Radar Impacts and Mitigation," 2011-2012, (1 month PI effort per year)
- "Advanced Heliostat Development," 2010-2012, (4 months co-PI effort per year)
- "Hybrid Flywheel Testing," Leveraged Project sponsored by New Mexico Small Business Assistance Program, Principal Investigator, funding in calendar year 2011, $85,000.
- "Dynamics Analysis and Failure Analysis of Flywheel Energy Storage," New Mexico Small Business Assistance Program, Principal Investigator, 2010, $17,000 total.
- "Evaluation of Innovative Structural Foams for Green Construction," New Mexico Small Business Assistance Program, Principal Investigator, 2010, $8,500 total.
- "Dynamics Analysis and Sensors for Flywheel Storage," New Mexico Small Business Assistance Program, Principal Investigator, 2010, $17,000 total.
- "Structural Analysis of a Vertical Axis Wind Turbine," New Mexico Small Business Assistance Program, Principal Investigator, 2008-2009, $17,000 per year, $34,000 total.
- Sandia National Laboratories, Engineering Sciences Research Foundation (ESRF), "Nonlinear Model Reduction," 2007-2009, $140,000 per year, $420,000 total (with A. Keith Miller).
- Texas A&M University, Graduate Student Travel Award, Spring 2004, $500.
- Department of Defense, National Defense Science and Engineering Graduate Fellowship, 2001-2004, $120,000 (approximate).
- Sandia National Laboratories, Sandia Excellence in Engineering Fellowship, 2002, $20,000 annually (funding was declined in favor of NDSEG Fellowship funding).
- Texas Space Grant Consortium, Texas Space Grant Graduate Fellowship, 2001-2002, $5,000.
- National Aeronautics and Space Administration, NASA Graduate Student Researchers Program (GSRP) Fellowship, Title: "Investigating the Effect of Foam-Inflated Aerospace Structures on Attitude Control and Pointing," 1998-2000, $44,000 total.
- National Aeronautics and Space Administration, NASA/JOVE (JOint VEnture) Fellowship, 1995-1996, $4,000.

Publications

Peer-Reviewed Journal Articles (16 in total)

1. Richards, P.W., **Griffith, D.T.**, and Hodges, D., "Aeroelastic Design of Large Wind Turbine Blades Considering Damage Tolerance," *Wind Energy*, Wiley, Volume 20, Issue 1, January 2017, Pages 159–170, DOI: 10.1002/we.1997.

2. **Griffith, D.T.**, Paquette, J., Barone, M., Goupee, A., Fowler, M., Bull, D., Owens, B., "A Study of Rotor and Platform Design Trade-offs for Large-scale Floating Vertical Axis Wind Turbines," Journal of Physics: Conference Series 753 (2016) 102003 doi:10.1088/1742-6596/753/10/102003.

3. Richards, P., **Griffith, D.T.**, and Hodges, D., "Smart Loads Management for Damaged Offshore Wind Turbines," Wind Engineering, Vol. 39, No. 4, August 2015, pp 419-436, DOI: http://dx.doi.org/10.1260/0309-524X.39.4.419.

4. Myrent, N, Adams, D., **Griffith, D.T.**, "Wind Turbine Blade Shear Web Disbond Detection Using Rotor Blade Operational Sensing and Data Analysis," *Philosophical Transactions of the Royal Society A*, January 2015.

5. **Griffith, D. T.**, Moya, A.C., Ho, C.K., and Hunter, P.S., "Structural Dynamics Testing and Analysis for Design Evaluation and Monitoring of Heliostats," *ASME Journal of Solar Energy Engineering*, 137(2), Oct 23, 2014, doi: 10.1115/1.4028561.

6. Owens, B.C. and **Griffith, D.T.**, "Aeroelastic Stability Investigations for Large-scale Vertical Axis Wind Turbines," Journal of Physics: Conference Series, Volume 524, No. 1, June 2014.

7. Richards, P.W., **Griffith, D.T.**, and Hodges, D.H., "High-fidelity Modeling of Local Effects of Damage for Derated Offshore Wind Turbines," Journal of Physics: Conference Series, Volume 524, No. 1., June 2014.

8. Kusnick, J., Adams, D., and **Griffith, D.T.**, "Wind Turbine Rotor Imbalance Detection Using Nacelle and Blade Measurements," *Wind Energy*, Wiley, January 2014, DOI: 10.1002/we.1696.

9. **Griffith, D.T.**, Yoder, N.C., Resor, B.R., White, J.R., and Paquette, J.A., "Structural Health and Prognostics Management for the Enhancement of Offshore Wind Turbine Operations and Maintenance Strategies," *Wind Energy*, Wiley, September 2013, DOE:10.1002/we.1665.

10. **Griffith, D.T**., "Analytical Sensitivities of Principal Components in Time Series Analysis of Dynamical Systems," *AIAA Journal*, Vol. 48, No. 9 September 2010, pgs. 2099-2110.

11. **Griffith, D.T.**, Carne, T.G., and Paquette, J.A., "Modal Testing for Validation of Blade Models," *Wind Engineering*, Vol. 32, No. 2, 2008, pgs. 91-102.

12. Sovinsky, M.C., Hurtado, J.E., **Griffith, D.T.**, and Turner, J.D., "The Hamel Representation: A Diagonalized Poincare Form," *Journal of Computational and Nonlinear Dynamics*, Vol. 2, No. 4, pgs. 316-323, October 2007.

13. Singla, P., **Griffith, D. T.**, Katake A., and Junkins, J.L., "Attitude and Interlock Angle Estimation using Split-Field-of-View Star Tracker," *The Journal of the Astronautical Sciences*, Vol. 55, No. 1, pgs. 85-105, January-March 2007.

14. **Griffith, D. T.**, Turner, J. D., and Junkins, J. L., "Automatic Generation and Integration of Equations of Motion for Flexible Multibody Dynamical Systems," *The Journal of the Astronautical Sciences*, Vol. 53, No. 3, July-September 2005, pp. 251-279.

15. **Griffith, D.T.** and Main, J.A., "Experimental Modal Analysis and Damping Estimation For an Inflated Thin Film Torus," *Journal of Guidance, Control, and Dynamics*, Vol. 25, No. 4, July-August 2002, pp. 609-617.

16. **Griffith, D.T.** and Main, J.A., "Structural Modeling of Foam-inflated Aerospace Structures," *Journal of Aerospace Engineering*, Vol. 13, No. 2, April 2000, pp. 37-46.

Conference Papers (58 in total)

1. Anderson, E., Schmidt-Paulsen, U., **D.T. Griffith**, Madsen, H.A., "A Review of State-of-the-art in Torque Generation and Control of Floating Vertical-axis Wind Turbines," EUROMECH Colloquium on Scientific and Technological Challenges in Offshore Vertical Axis Wind Turbines, Delft, the Netherlands, September 7-9, 2016.

2. Liu, J., Thomas, E., Manuel, L., **Griffith, D.T.**, Ruehl, K., and Barone, M., "On the Development of a Semi-Submersible Offshore Floating Platform and Mooring System for a 13.2 MW Wind Turbine," 34th ASME Wind Energy Symposium, January 2016, San Diego, CA, USA, Paper Number AIAA2016-1994.

3. Roscher, B., Simao Ferreira, C., Bernhammer, L., Madsen, H., **Griffith, D.T.**, Stoevesandt, B., "Combined Structural Optimization and Aeroelastic Analysis of a Vertical Axis Wind Turbine," 33rd ASME Wind Energy Symposium, January 2015, Orlando, FL.

4. Myrent, N.J., Adams, D.E., and **Griffith, D.T.**, "Wind Turbine Blade Shear Web Disbond Detection Using Rotor Blade Operational Sensing and Data Analysis," International Conference on Next Generation Wind Energy (ICNGWE 2014), Madrid, Spain, October 7-10, 2014.

5. Fowler, M.J., Owens, B.C., Goupee, A.J., Hurtado, J.E., **Griffith, D.T.**, Alves, M., "Hydrodynamic Module Coupling in the Offshore Wind Energy Simulation (OWENS) Toolkit," Proceedings of the 33rd ASME International Conference on Ocean, Offshore and Arctic Engineering (OMAE2014), June 8-13, 2014, San Francisco, California, USA, Paper OMAE2014-24175. ***Best Paper Award OMAE 2014 Ocean Renewable Energy Symposium.***

6. Richards, P.W., **Griffith, D.T.**, and Hodges, D.H., "Operating Strategies and Design Recommendations for Mitigating Local Damage Effects in Offshore Turbine Blades," American Helicopter Society (AHS) 70th Annual Forum, Montreal, Quebec, Canada, May 20-22, 2014.

7. **Griffith, D.T.** and Richards, P.W., "Investigating the Effects of Flatback Airfoils and Blade Slenderness on the Design of Large Wind Turbine Blades," Proceedings of the European Wind Energy Association (EWEA) Annual Event, Barcelona, Spain, March 10-13, 2014, Paper PO-225.

8. Owens, B.C., **Griffith, D.T.**, and Hurtado, J.E., "Modal Dynamics and Stability of Large Multi-megawatt Deepwater Offshore Vertical-axis Wind Turbines: Initial Support Structure and Rotor Design Impact Studies," 32nd ASME Wind Energy Symposium (AIAA SCITECH), January 13-17, 2014, National Harbor, MD, USA.

9. Buckney, N., Pirrera, A., Weaver, P., and **Griffith, D.T.**, "Structural Efficiency Analysis of the Sandia 100 m Wind Turbine Blade," 32nd ASME Wind Energy Symposium (AIAA SCITECH), January 13-17, 2014, National Harbor, MD, USA.

10. Myrent, N., Bilal, N., Adams, D., and **Griffith, D.T.**, "Aerodynamic Sensitivity Analysis of Rotor Imbalance and Shear Web Disbond Detection Strategies for Offshore Structural Health Prognostics Management of Wind Turbine Blades," 32nd ASME Wind Energy Symposium (AIAA SCITECH), January 13-17, 2014, National Harbor, MD, USA.

11. Owens, B.C., **Griffith, D.T.**, Resor, B.R., and Hurtado, J.E., "Impact of Modeling Approach on Flutter Predictions for Very Large Wind Turbine Blade Designs," *Proceedings of the American Helicopter Society (AHS) 69th Annual Forum*, May 21-23, 2013, Phoenix, AZ, USA, Paper No. 386.

12. Myrent, N.J., Kusnick, J.F., Adams, D.E., and **Griffith, D.T.**, "Pitch Error and Shear Web Disbond Detection on Wind Turbine Blades for Offshore Structural Health and Prognostics Management," *54th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, April 8-11, 2013, Boston, MA, USA, AIAA-2013-1695.

13. **Griffith, D.T.** and Johanns, W., "Carbon Design Studies for Large Blades: Performance and Cost Tradeoffs for the Sandia 100-meter Wind Turbine Blade," *54th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, April 8-11, 2013, Boston, MA, USA, AIAA-2013-1554.

14. Owens, B.C., Hurtado, J.E., Paquette, J., **Griffith, D.T.,** and Barone, M., "Aeroelastic Modeling of Large Offshore Vertical-axis Wind Turbines: Development of the Offshore Wind Energy Simulation Toolkit," *54th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, April 8-11, 2013, Boston, MA, USA, AIAA-2013-1552.

15. Moya, A., Ho, C., Sment, J., **Griffith, D.T.**, Christian, J., and Allen, M.S., "Modal Analysis and Dynamic Monitoring of a Concentrating Solar Heliostat," *Proceedings of the 31st International Modal Analysis Conference*, February 11-14, 2013, Garden Grove, CA, USA.

16. Ho, C., **Griffith, D.T.**, Sment, J., Moya, A.C., Christian, J.M., Yuan, J.K., and Hunter, P.S., "Dynamic Testing and Analysis of Heliostats to Evaluate Impacts of Wind on Optical Performance and Structural Fatigue," *Proceedings of Solar Power and Chemical Energy Systems (SolarPACES) 2012 Conference*, Marrakech, Morocco, September 11-14, 2012.

17. **Griffith, D.T.**, Resor, B.R., and Ashwill, T.D., "Challenges and Opportunities in Large Offshore Rotor Development: Sandia 100-meter Blade Research," *Proceedings of the American Wind Energy Conference WINDPOWER 2012 Conference and Exhibit (Scientific Track)*, June 3-6, 2012, Atlanta, GA, USA.

18. Menicucci, A.R., Ho, C.K., and **Griffith, D.T.**, "High Performance Computing for Static and Dynamic Analyses of Heliostats for Concentrating Solar Power," *Proceedings of the World Renewable Energy Forum (WREF 2012)*, May 13-17, 2012, Denver, CO, USA, pp. 645-651.

19. Corson, D.A., **Griffith, D.T.**, Ashwill, T.D., and Shakib, F., "Investigating Aeroelastic Performance of Multi-MegaWatt Wind Turbine Rotors Using CFD," *53rd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, April 23-26, 2012, Honolulu, HI, USA, AIAA-2012-1827.

20. Miller, D., Mandell, J.F., Samborsky, D., Hernandez-Sanchez, B.A., and **Griffith, D.T.**, "Performance of Composite Materials Subjected to Salt Water Environments," *53rd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, April 23-26, 2012, Honolulu, HI, USA, AIAA-2012-1575.

21. **Griffith, D.T.**, Ashwill, T.D., and Resor, B.R., "Large Offshore Rotor Development: Design and Analysis of the Sandia 100-meter Wind Turbine Blade," *53rd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, April 23-26, 2012, Honolulu, HI, USA, AIAA-2012-1499.

22. Resor, B.R., Owens, B.C., and **Griffith, D.T.**, "Aeroelastic Instability of Very Large Wind Turbine Blades," *Proceedings of the European Wind Energy Conference Annual Event (Technical Track Paper/Poster)*, April 16-19, 2012, Copenhagen, Denmark.

23. **Griffith, D.T.**, Yoder, N., Resor, B.R., White, J., Paquette, J., Ogilvie, A., and Peters, V., "Prognostic Control to Enhance Offshore Wind Turbine Operations and Maintenance Strategies," *Proceedings of the European Wind Energy Conference Annual Event (Scientific Track)*, April 16-19, 2012, Copenhagen, Denmark.

24. **Griffith, D.T.**, Ho, C., Hunter, P.S., Sment, J., Moya, A.C., Menicucci, A.R., "Modal Analysis of a Heliostat for Concentrating Solar Power" *Proceedings of the 30th International Modal Analysis Conference*, January 30 - February 2, 2012, Jacksonville, FL, USA.

25. **Griffith, D.T.**, Moya, A.C., Ho, C.K., and Hunter, P.S., "Structural Dynamics Testing and Analysis for Design Evaluation and Monitoring of Heliostats," *ASME Energy Sustainability Conference and Fuel Cell Conference*, August 7-10, 2011, Washington, Washington DC.

26. **Griffith, D.T.**, "Utilization of Localized Panel Resonant Behavior in Wind Turbine Blades," *Proceedings of the 29th International Modal Analysis Conference*, January 31 - February 3, 2011, Jacksonville, FL, USA.

27. **Griffith, D.T.** and Paquette, J.A., "Panel Resonant Behavior of Wind Turbine Blades," *51th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, Presented in Special Session titled "Wind Turbine Dynamics and Control," April 1-4, 2010, Orlando, FL, USA, AIAA-2010-2741.

28. **Griffith, D.T.**, Carne, T.G., and Paquette, J.A., "Experimental Modal Analysis for 9-meter Research-sized Wind Turbine Blades," *Proceedings of the 28th International Modal Analysis Conference*, February 1-4, 2010, Jacksonville, FL, USA.

29. **Griffith, D.T.**, Mayes, R.L., and Hunter, P.S., "Excitation Methods for a 60 kW Vertical Axis Wind Turbine," *Proceedings of the 28th International Modal Analysis Conference*, February 1-4, 2010, Jacksonville, FL, USA.

30. **Griffith, D.T.**, Hunter, P.S., Kelton, D.W., Carne, T.G., and Paquette, J.A., "Boundary Condition Considerations for Validation of Blade Structural Models," *Proceedings of the Society for Experimental Mechanics (SEM) Annual Conference and Exhibition*, June 1-3, 2009, Albuquerque, NM, USA.

31. **Griffith, D.T.** and Miller, A.K., "Applications of Analytical Sensitivities of the Principal Components in Structural Dynamics Analysis," *50th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, May 4-7, 2009, Palms Springs, CA, USA, AIAA-2009-2650.

32. Walter, M., Garcia, E., Miller, A.K., and **Griffith, D.T.**, "Identification of Structural Nonlinear Behavior Using Singular Value Methods," *50th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, May 4-7, 2009, Palms Springs, CA, USA, AIAA-2009-2494.

33. **Griffith, D.T.**, "Structural Dynamics Analysis and Model Validation of Wind Turbine Structures," *50th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*,

Presented in Special Session on "Wind Energy Technology", May 4-7, 2009, Palms Springs, CA, USA, AIAA-2009-2408.

34. **Griffith, D.T.**, "Analytical Sensitivities for Principal Components Analysis of Dynamical Systems," *Proceedings of the 27th International Modal Analysis Conference*, February 2009, Orlando, FL, USA.

35. **Griffith, D.T.**, Paquette, J.A., and Carne, T.G., "Development of Validated Blade Structural Models," *46th AIAA Aerospace Sciences Meeting and Exhibit*, 7-10 January 2008, Reno, NV, USA, AIAA 2008-1297.

36. **Griffith, D.T.**, Carne, T.G., and Paquette, J., "Modal Test Techniques for Validation of Blade Models," *Proceedings of the American Wind Energy Conference WINDPOWER 2007 Conference and Exhibit*, June 4-7, 2007, Los Angeles, CA, USA.

37. Goodding, J., Coombs, D., Babuska, V., **Griffith, D.T.**, Ingram, B., and Robertson, L., "Studies of Free-Free Beam Structural Dynamics Perturbations due to Mounted Cable Harnesses," *48th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, April 23-27, 2007, Waikiki, HI, USA, AIAA-2007-2390.

38. **Griffith, D.T.** and Carne, T.G, "Experimental Uncertainty Quantification of Modal Test Data," *Proceedings of the 25th International Modal Analysis Conference*, February 2007, Orlando, FL, USA.

39. Carne, T.G., **Griffith, D.T.**, and Casias, M., "Support Conditions for Free-Boundary Condition Modal Tests," *Proceedings of the 25th International Modal Analysis Conference*, February 2007, Orlando, FL, USA.

40. Simmermacher, T.W., Jones, S., Urbina, A., **Griffith, D.T.**, and Reeder, D., "Development of an Anisotropic, Energy Dependent Model for PZT," *Proceedings of the Society for Experimental Mechanics (SEM) Annual Conference and Exhibition*, June 4-7, 2006, Saint Louis, MO, USA.

41. **Griffith, D.T.**, Casias, M., Smith, G., Paquette, J., and Simmermacher, T.W., "Experimental Uncertainty Quantification of a Class of Wind Turbine Blades," *Proceedings of the 24th International Modal Analysis Conference*, February 2006, Saint Louis, MO, USA.

42. Paquette, J., Laird, D., **Griffith, D.T.**, and Rip, L., "Modeling and Testing of 9m Research Blades,", *44th AIAA Aerospace Sciences Meeting and Exhibit*, 9-12 January 2006, Reno, Nevada, AIAA 2006-1199.

43. **Griffith, D.T.**, Turner, J.D., and Junkins, J.L., "Some Applications of Automatic Differentiation to Rigid, Flexible, and Constrained Multibody Dynamics," *5th International Conference on Multibody Systems, Nonlinear Dynamics and Control*, Long Beach, CA, September 24-28, 2005, v.6 A, p.271-281.

44. Hurtado, J.E., Sovinsky, M.C., **Griffith, D.T.**, and Turner, J.D., "The Hamel Representation: A Diagonalized Poincaré Form," *5th International Conference on Multibody Systems, Nonlinear Dynamics and Control*, Long Beach, CA, September 24-28, 2005.

45. **Griffith, D.T.**, Turner, J.D., Vadali, S.R., and Junkins, J.L., "Higher-order Sensitivities for Solving Nonlinear Two-Point Boundary Value Problems," *AIAA/AAS Astrodynamics Specialist Conference and Exhibit*, August 16-19, 2004, Providence, RI, AIAA-2004-5404.

46. **Griffith, D.T.**, Junkins, J.L., and Turner, J.D., "Automatic Generation and Integration of Equations of Motion for Linked Mechanical Systems," *6th International Conference on Dynamics and Control of Systems and Structures in Space*, July 18-22, 2004, Riomaggiore, Cinque Terre, Liguria, Italy.

47. Junkins, J.L., Singla, P., **Griffith, D.T.**, and Henderson, K.T., "Orthogonal Global/Local Approximation in N-Dimensions: Applications to Input/Output Approximation," 6th International Conference on Dynamics and Control of Systems and Structures in Space, July 18-22, 2004, Riomaggiore, Cinque Terre, Liguria, Italy.

48. **Griffith, D.T.**, Sinclair, A.J., Turner, J.D., Hurtado, J.E., and Junkins, J.L., "Automatic Generation and Integration of Equations of Motion by Operator-Overloading Techniques," AAS/AIAA Spaceflight Mechanics Meeting, February 8-12, 2004, Maui, HI, USA, Paper AAS 04-242.

49. **Griffith, D.T.**, Turner, J.D., and Junkins, J.L., "An Embedded Function Tool for Modeling and Simulating Estimation Problems in Aerospace Engineering," AAS/AIAA Spaceflight Mechanics Meeting, February 8-12, 2004, Maui, HI, USA, Paper AAS 04-148.

50. Singla, P., Subbarao, K., **Griffith, D.T.**, and Junkins, J.L., "Autonomous Focal Plane Calibration using Intelligent Radial Basis Function Networks," AAS/AIAA Spaceflight Mechanics Meeting, February 8-12, 2004, Maui, HI, USA, Paper AAS 04-119.

51. Singla, P., **Griffith, D.T.**, and Junkins, J.L., "Attitude and Interlock Angle Estimation for the GIFTS Mission," AAS/AIAA Spaceflight Mechanics Meeting, February 8-12, 2004, Maui, HI, USA, Paper AAS 04-120.

52. **Griffith, D.T.** and Junkins, J.L., "Recursive On-orbit Calibration of Star Sensors," World Space Congress, October 10-19, 2002, Houston, TX, USA.

53. **Griffith, D.T.**, Singla, P., and Junkins, J.L, "Autonomous On-orbit Calibration Approaches for Star Tracker Cameras," AAS/AIAA Spaceflight Mechanics Meeting, January 27-30, 2002, San Antonio, TX, USA, Paper AAS 02-102.

54. Singla, P., **Griffith, D.T.**, Crassidis, J.L., and Junkins, J.L., "Attitude Determination and Autonomous On-Orbit Calibration of the Star Tracker for the GIFTS Mission," AAS/AIAA Spaceflight Mechanics Meeting, January 27-30, 2002, San Antonio, TX, USA, Paper AAS 02-101.

55. Samaan, M.A., **Griffith, D.T.**, Singla, P., and Junkins, J.L., "Autonomous On-orbit Calibration of Star Trackers", Core Technologies for Space Systems Conference, November 28-30, 2001, Breckenridge, Colorado.

56. **Griffith, D.T.** and Main, J.A., "Modal Testing of an Inflated Thin Film Polyimide Torus Structure," 18th International Modal Analysis Conference, February 7-10, 2000, San Antonio, TX, USA.

57. Hobbs, K. P. Jr, **Griffith, D.T.**, Smith, S.W., and Main, J.A., "Post-flight Testing and Analysis of Zero-g Foam Rigidized Struts," 40th AIAA Structures, Structural Dynamics, and Materials Conference, April 12-15, 1999, St. Louis, MO, USA, AIAA Paper 99-1524.

58. Main, J.A. and **Griffith, D.T.**, "Structural Modeling and Morphology of Foam-inflated Aerospace Structures," 39th AIAA Structures, Structural Dynamics, and Materials Conference, April 20-23, 1998, Long Beach, CA, USA.

Invited Technical Presentations (26 in total)

1. Griffith, D.T., "New Technologies for Offshore Renewable Energy Systems", Prestige Lecture, Renewable Energy Marine Structures Center, Cranfield University, United Kingdom, April 21, 2017.

2. Griffith, D.T., "Modeling and Simulation in the Design of Offshore Wind Energy Systems", Sandia Center for Computing Research (CCR) Summer Seminar Series, Sandia National Laboratories, June 20, 2016.

3. Griffith, D.T., "System Design Studies for Large-Scale Floating Offshore Vertical Axis Wind Turbines," Keynote Talk, EUROMECH Colloquium on Scientific and Technological Challenges in Offshore Vertical Axis Wind Turbines, Delft, the Netherlands, September 7-9, 2016.

4. Griffith, D.T., "Sensing in Renewable Energy Systems: Modal Testing and Structural Health & Prognostics Management**,**" Invited Presentation, Bruel and Kaer Colloquium, B&K Headquarters, November 12, 2015, Naerum, Denmark.

5. Griffith, D.T., "Advancing Technology in Offshore Wind Energy Systems," Invited Presentation, Aerospace Engineering Seminar Series, Texas A&M University, October 22, 2015, College Station, TX.

6. Griffith, D.T., "Cost Reductions in Offshore Wind through Technology Innovation," Invited Presentation, 3rd NREL/DTU Wind Energy Systems Engineering Workshop, January 14, 2015, Boulder, CO.

7. Griffith, D.T., "Large Wind Turbine Blade Reference Designs: Blade Design and Manufacturing Cost Models," Invited Presentation, IEA Topical Experts Meeting (TEM #80), January 13, 2015, Boulder, CO.

8. Griffith, D.T., "An Update on the Sandia 100-meter Blade Project: Large Blade Public Domain Reference Models and Cost Models," Invited Presentation, 2014 Wind Turbine Blade Workshop, August 27, 2014, Albuquerque, NM.

9. Griffith, D.T., "Offshore Wind Research Activities at Sandia National Laboratories: An Update," Invited Presentation, Energy research Center of the Netherlands (ECN), July 10, 2014, Petten, the Netherlands.

10. Griffith, D.T., "Design Considerations for Wind Energy Systems: From Turbine to Project Scale," Invited Presentation, TU-Delft Education Seminar for Dutch High School Teachers, June 24, 2014, Delft, the Netherlands.

11. Griffith, D.T., "Innovative Offshore Vertical-Axis Wind Turbine Rotors," Invited Presentation, DTU/Sandia Vertical Axis Wind Turbine Workshop, June 17, 2014, Roskilde, Denmark.

12. Griffith, D.T., "Advancing Technology and Reducing Costs in Wind Energy Systems," Invited Opening Lecture, Erasmus Mundus European Wind Energy Masters Program (EWEM) Summer School, June 12, 2014, Delft, the Netherlands.

13. Griffith, D.T., "Large Blade Public Domain Reference Models at Sandia: Blade Design and Cost Models," Invited Presentation, International Reference Wind Turbine Workshop, May 27, 2014, NREL/NWTC, Boulder, CO.

14. Griffith, D.T., "Advancing Rotor Technology in Wind Energy Systems," Invited Presentation, Virginia Tech Aerospace and Ocean Engineering (AOE) Graduate Student Seminar, May 5, 2014, Blacksburg, VA.

15. Griffith, D.T., "Wind Turbine Rotor Research at Sandia National Laboratories," Invited Presentation, AIAA Albuquerque Section Meeting, November 21, 2013.

16. Griffith, D.T., "Structural Health and Prognostics Management for Wind Turbine Rotor Systems," Invited Presentation, 2013 Prognostics Health Management Wind Energy Workshop, October 16, 2013 (Unable to participate due to government travel restrictions).

17. Griffith, D.T., "Wind Energy Market and Technology Trends Update -2013," Invited Presentation, 2013 Sandia Wind Plant Reliability Workshop, Albuquerque, New Mexico, August 13, 2013, SAND2013-6915C.

18. Griffith, D.T., "Wind Energy Technology: Advanced Wind Turbine Rotor Research," Invited Presentation, University of New Mexico Mechanical Engineering Seminar, May 3, 2013, Albuquerque, NM.

19. Griffith, D.T., "Large Rotor Development: Sandia 100-meter Blade Research," Invited Presentation, Wind Turbine Blade Manufacturer 2012 Conference, November 27-29, 2012, Dusseldorf, Germany.

20. Griffith, D.T., "Wind Energy Technology Trends – 2012," Invited Presentation, 2012 Sandia Wind Turbine Blade Workshop, Albuquerque, New Mexico, May 30, 2012.

21. Griffith, D.T., "Sandia 100-meter Blade Research Update: SNL100-00 All-glass Baseline and Beyond," Invited Presentation, 2012 Sandia Wind Turbine Blade Workshop, Albuquerque, New Mexico, May 31, 2012.

22. Griffith, D.T., "Sandia National Laboratories: History, Research, and Career Opportunities," Invited Presentation: Aerospace Engineering Department Graduate Student Seminar, Auburn University, October 28, 2010.

23. Griffith, D.T., "Sandia National Laboratories: Career Opportunities, History, and Research," Invited Presentation: Aerospace Engineering Department Graduate Student Seminar, Texas A&M University, October 5, 2010.

24. Griffith, D.T., "Wind Energy Technology: Large Blade Research at Sandia National Laboratories," Invited Presentation: Aerospace Engineering Department Graduate Student Seminar, Virginia Tech, April 27, 2009.

25. Griffith, D.T., "Wind Energy Technology: Modal Testing and Model Validation at Sandia National Laboratories," Invited Presentation: William Maxwell Reed Seminar Series, University of Kentucky, Department of Mechanical Engineering, October 25, 2007.

26. Griffith, D.T., Special lecture on "Higher-order State Transition Methods", in graduate-level course on Estimation of Dynamical Systems, Fall 2004, Texas A&M University.

Additional Conference Presentations

1. Griffith, D.T., et al, "Prognostic Operation and Maintenance Strategies for Offshore Wind Turbines," *Poster Presentation, American Wind Energy Association (AWEA)Offshore WINDPOWER 2012 Conference and Exhibit*, Virginia Beach, VA, USA, October 9-11, 2012.

2. Griffith, D.T., "Innovative Offshore Vertical-Axis Wind Turbine Rotors," *Podium Presentation, American Wind Energy Association (AWEA)Offshore WINDPOWER 2012 Conference and Exhibit*, Virginia Beach, VA, USA, October 9-11, 2012.

3. Griffith, D.T. and Ashwill, T.A., "Large Blade Development: The Sandia 100-meter Baseline Blade," *Poster Presentation, American Wind Energy Association (AWEA) WINDPOWER 2010 Conference and Exhibit*, Dallas, TX, USA, May 24-26, 2010.

4. Griffith, D.T. and Ashwill, T.A., "100-meter Blade Development: Challenges and Opportunities," *Poster Presentation, American Wind Energy Association (AWEA) WINDPOWER 2009 Conference and Exhibit*, Chicago, IL, USA, May 4-7, 2009.

5. Griffith, D.T. and Paquette, J.A., "Development of Validated Blade Structural Models*," Poster Presentation, American Wind Energy Association (AWEA) WINDPOWER 2008 Conference and Exhibit*, Houston, TX, USA, June 1-4, 2008.

6. Griffith, D. T., "Reduced Order Modeling of Structures Containing Localized Nonlinearities," *48th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, April 23-27, 2007, Waikiki, HI, USA, AIAA-2007-2054.

7. Segalman, D.J., Griffith, D.T., and Holzmann, W.A., "Model Reduction to Stabilize Dynamic Analysis of Jointed Structures Undergoing Macro-slip," *7th World Congress on Computational Mechanics*, July 16-22, 2006, Los Angeles, CA, USA.

8. Turner, J. D., Junkins, J. L., and Griffith, D. T., "Development of a General-Purpose Quasi-Coordinate Lagrangian-Based Multibody Dynamics Tool Using Automatic Differentiation," ASME *International Design Engineering Technical Conference*, September 24-28, 2005, Long Beach, CA, USA.

Edited Proceedings/Book Volumes

1. Topics in Experimental Dynamics Substructuring and Wind Turbine Dynamics, Volume 2: Proceedings of the 30th IMAC, A Conference on Structural Dynamics, Society for Experimental Mechanics Series) [Hardcover], Edited by R. Mayes (Editor), D. Rixen (Editor), **D.T. Griffith (Editor)**, D. De Klerk (Editor), S. Chauhan (Editor), S.N. Voormeeren (Editor), M.S. Allen (Editor).

Professional Magazines and Feature Articles

1. Contribution for the 2013 Structural Dynamics Year in Review Article in *AIAA Aerospace America*, December 2013 (Vertical Axis Wind Turbine Structural Dynamics Analysis).

2. **Griffith, D.T.** and Carne, T.G, "Experimental Modal Analysis of 9-meter Research-sized Wind Turbine Blades," Feature Article in *Sound and Vibration Magazine*, November 2010.

3. Contribution for the 2011 Structural Dynamics Year in Review Article in *AIAA Aerospace America*, December 2011 (Structural Acoustics and Sandia Experimental Substructuring).

4. Contribution for the 2010 Structural Dynamics Year in Review Article in *AIAA Aerospace America*, December 2010 (Sandia Experimental Substructuring and Wind Turbine Blade Embedded Sensors).

5. **Griffith, D.T.** and Zayas, J., "The Role of Modal Testing for Evaluation and Design," Feature Article in *Technology* Section, *Wind Systems Magazine*, July 2010.

6. Contribution for the 2009 Structural Dynamics Year in Review Article in *AIAA Aerospace America*, December 2009 (Sandia Massively-parallel Structural Dynamics and Novel Wind Turbine Blade).

7. Contribution for the 2008 Structural Dynamics Year in Review Article in *AIAA Aerospace America*, December 2008 (Wind Turbine Blade Testing and Microsystems Dynamics).

8. Carne, T.G, **Griffith, D.T.**, and Casias, M.E., "Support Conditions for Experimental Modal Analysis," Featured Cover Article in *Sound and Vibration Magazine*, June 2007, pp. 10-15.

Technical Reports

1. Patterson, R.P., **Griffith, D.T.**, "Wind Loading Effects on Photovoltaic Solar Trackers: Structural Modeling and Aeroelastic Stability Analysis," Sandia National Laboratories Technical Report, SAND2016-12958, December 2016 (Official Use Only).

2. **Griffith, D.T.**, "Structural Health and Prognostics Management for Offshore Wind Plants: Final Report of Sandia R&D Activities," Sandia National Laboratories Technical Report, SAND2015-2593, March 2015.

3. **Griffith, D.T.** and Richards, P.W., "The SNL100-03 Blade: Design Studies with Flatback Airfoils for the Sandia 100-meter Blade," Sandia National Laboratories Technical Report, September 2014, SAND2014-18129.

4. Myrent, N.J, Barrett, N.C., Adams, D.E., and **Griffith, D.T.**, "Structural Health and Prognostics Management of Offshore Wind Turbines: Sensitivity Analysis of Rotor Fault and Blade Damage with O&M Cost Modeling," Sandia National Laboratories Technical Report, July 2014, SAND2014-15588.

5. **Griffith, D.T.**, "The SNL100-02 Blade: Advanced Core Material Design Studies for the Sandia 100-meter Blade," Sandia National Laboratories Technical Report, November 2013, SAND2013-10162.

6. Myrent, N., Kusnick, J., Barrett, N., Adams, D., and **Griffith, D.T.**, "Structural Health and Prognostics Management for Offshore Wind Turbines: Case Studies of Rotor Fault and Blade Damage with Initial O&M Cost Modeling," Sandia National Laboratories Technical Report, April 2013, SAND2013-2735.

7. **Griffith, D.T.** and Johanns, W., "Large Blade Manufacturing Cost Studies Using the Sandia Blade Manufacturing Cost Tool and Sandia 100-meter Blades," Sandia National Laboratories Technical Report, April 2013, SAND2013-2734.

8. Johanns, W. and **Griffith, D.T.**, "User Manual for Sandia Blade Manufacturing Cost Tool: Version 1.0," Sandia National Laboratories Technical Report, April 2013, SAND2013-2733.

9. **Griffith, D.T.**, "The SNL100-01 Blade: Carbon Design Studies for the Sandia 100-meter Blade," Sandia National Laboratories Technical Report, February 2013, SAND2013-1178.

10. **Griffith, D.T.**, Yoder, N.C., Resor, B.R., White, J.R., and Paquette, J.A., "Structural Health and Prognostics Management for Offshore Wind Turbines: An Initial Roadmap," Sandia National Laboratories Technical Report, December 2012, SAND2012-10109.

11. Barone, M., **Griffith, D.T.**, and Berg, J., "Reference Model 2: 'Rev 0' Rotor Design," Sandia National Laboratories Technical Report, November 2011, SAND2011-9306.

12. **Griffith, D.T.** and Ashwill, T.D, "The Sandia 100-meter All-glass Baseline Wind Turbine Blade: SNL100-00," Sandia National Laboratories Technical Report, June 2011, SAND2011-3779.

13. Piekos, E.S., Dyhkuizen, R.C., **Griffith, D.T.**, Gwinn, K.W., Hogan, R.E., Romero, V.J., and Aselage, T.L., "Technologies for Concentrating Solar Power," Sandia National Laboratories Technical Report, February 2010, SAND2010-0885.

14. **Griffith, D.T.** and Carne, T.G., "Modal Testing of the BSDS Wind Turbine Blade," Sandia National Laboratories Technical Report, in preparation.

15. **Griffith, D.T.**, "Using Principal Components Analytical Sensitivities for Calibration of Linear and Nonlinear Structural Dynamics Models," Internal Memo, Sandia National Laboratories, November 30, 2009.

16. **Griffith, D.T.** and Segalman, D. J., "Finite Element Calculations Illustrating a Method of Model Reduction for the Dynamics of Structures with Localized Nonlinearities," Sandia National Laboratories Technical Report, October 2006, Report # SAND2006-5843.

17. **Griffith, D.T.** and Mayes, R.L., "Modal Testing of the B61 Fireset," Internal Memo, Sandia National Laboratories, October 2006.

18. **Griffith, D.T.**., Smith, G., Casias, M., Reese, S., and Simmermacher, T.W., "Modal Testing of the TX-100 Wind Turbine Blade," Sandia National Laboratories Technical Report, October 2006, Report # SAND2005-6454.

19. Casias, M., Smith, G., **Griffith, D.T.**, and Simmermacher, T.W., "Modal Testing of the CX-100 Wind Turbine Blade," Sandia National Laboratories Technical Report, October 2006.

20. **Griffith, D.T.**, and Mayes, R.L., "Modal Testing of the B61 Programmer Box," Internal Memo, Sandia National Laboratories, March 30, 2006.

21. **Griffith, D.T.**, "User's Guide for mat2exo: A program for writing Matlab mat-file data to Exodus II format," Internal Memo, Sandia National Laboratories, January 12, 2006.

22. **Griffith, D.T.**, "Reconstructing G-set nodal variables from A-set nodal variables and constraint relations," Internal Memo, Sandia National Laboratories, January 12, 2006.

Professional Courses Attended

- Preparing for Management, Sandia National Laboratories Professional Development, January 2017.
- Proposal Writing Workshop, Sandia National Laboratories Professional Development, June 2015.
- Project Management Overview, Sandia National Laboratories Professional Development, August 2014.
- Operational Modal Analysis, International Modal Analysis Conference Professional Development Course, January 2010.
- Aeroelasticity: State of the Art Practices, AIAA Professional Development Course, April 2008.
- Verification and Validation in Computational Simulation, Sandia National Laboratories, September 2007.
- Design of Aircraft Structures, AIAA Professional Development Course, April 2007.
- Nastran Structural Dynamics Analysis for Aerospace Applications, Sandia National Laboratories, May 2006.
- Digital Signal Processing, Sandia National Laboratories, Fall 2005.
- Experimental Techniques Seminar Series (Experimental Modal Analysis), University of Cincinnati, Structural Dynamics Research Laboratory, Summer 1999.