Anh T. Tran

Curriculum Vitae

CONTACT INFORMATION

Mailing address Department of Mathematical Sciences, The University of Texas at Dallas

800 West Campbell Road, FO 35, Richardson, TX 75080

Email address att140830@utdallas.edu

Office FO 2.604B

Telephone (972) 883-6587

Homepage http://www.utdallas.edu/~att140830/

EDUCATION

08.2006-08.2012 Ph.D. in Mathematics, Georgia Institute of Technology, Atlanta, GA, USA

Thesis: The volume conjecture, the AJ conjectures, and skein modules

Advisor: Dr. Thang T.Q. Le

08.2000–08.2004 B.S. in Mathematics and Computer Science, Vietnam National University at

Hochiminh city, Vietnam

EMPLOYMENNT

08.2014-present Assistant Professor, The University of Texas at Dallas, Richardson, TX

08.2012–08.2014 Ross Assistant Professor, The Ohio State University, Columbus, OH

08.2004-08.2006 Lecturer, Vietnam National University at Hochiminh city, Vietnam

Research Interests

Quantum Topology and Knot Theory. I am particularly interested in the Jones polynomial, skein modules, character varieties, the A-polynomial, the Alexander polynomial, and left-orderability of fundamental groups.

PUBLICATIONS

- 1. **On the volume conjecture for cables of knots** (with T. Le), Journal of Knot Theory and Its Ramifications **19** (2010), no. 12, 1673–1691.
- 2. **Proof of a stronger version of the AJ conjecture for torus knots**, Algebraic and Geometric Topology **13** (2013), no. 1, 609–624.
- 3. The universal character ring of some families of one-relator groups, Algebraic and Geometric Topology **13** (2013), no. 4, 2317–2333.
- 4. The universal character ring of the (-2, 2m + 1, 2n)-pretzel link, International Journal of Mathematics **24** (2013), no. 8, 13 pages.
- 5. On the twisted Alexander polynomial for representations into $SL_2(\mathbb{C})$, Journal of Knot Theory and Its Ramifications **22** (2013), no. 10, 12 pages.

- 6. **The Kauffman bracket skein module of two-bridge links** (with T. Le), Proceedings of the American Mathematical Society **142** (2014), no. 3, 1045–1056.
- 7. Twisted Alexander polynomials of 2-bridge knots for parabolic representations (with T. Morifuji), Pacific Journal of Mathematics **269** (2014), no. 2, 433–451.
- 8. On the AJ conjecture for cables of the figure eight knot, New York Journal of Mathematics **20** (2014) 727-741.
- 9. **On left-orderable fundamental groups and Dehn surgeries on knots**, Journal of the Mathematical Society of Japan (to appear).
- 10. **On left-orderability and cyclic branched coverings**, Journal of the Mathematical Society of Japan (to appear).

Referee and Reviewer

Quantum Topology, Topology and Its Applications, Acta Mathematica Vietnamica, AMS Mathematical Reviews.

PhD defense committee

Thao Vuong (Georgia Tech) April 2014.

SELECTED TALKS

- 04/2014 *The AJ conjecture for knots*, Mathematics Colloquium, The University of Texas at Dallas, Richardson, TX.
- 03/2014 The AJ conjecture for pretzel knots, Geometry/Topology Seminar, University at Buffalo, Buffalo, NY.
- 03/2014 Left-orderable fundamental groups and Dehn surgeries on knots, Geometry/Topology Seminar, Georgia Institute of Technology, Atlanta, GA.
- 10/2013 Left-orderable fundamental groups and Dehn surgeries on knots, AMS Central Sectional Meeting, Washington University, St. Louis, MO.
- 03/2013 The A-polynomial and the colored Jones polynomial of knots, Geometry/Topology Seminar, Michigan State University, East Lansing, MI.
- 01/2013 *The AJ conjecture for knots*, Geometry/Topology Seminar, The Ohio State University, Columbus, OH.
- 03/2012 Proof of a stronger version of the AJ conjecture for torus knots, AMS Central Sectional Meeting, University of Kansas, Lawrence, KS.
- 10/2011 The AJ conjecture for knots, AMS Central Sectional Meeting, University of Nebraska, Lincoln, NE.

Honors and Awards

- 2008, 2011 Thank-a-teacher Certificate, Center for the Enhancement of Teaching and Learning, Georgia Institute of Technology.
 - 2006 Toshiba Scholarship (for graduate students with excellent academic performance and scientific research), Vietnam National University at Hochiminh city.
 - 2005 Odon Vallet Scholarship (Rencontres du Vietnam).
 - 2001 Le Van Thiem prize (for Young Vietnamese Mathematics Talents), awarded by the Vietnamese Mathematical Society.

2000 Honorable Mention, 12th Asian Pacific Mathematics Olympiad.

1999 Second Prize, Vietnamese Mathematical Olympiad.

TEACHING EXPERIENCE

The University of Texas at Dallas

• Integral Calculus: Fall 2014 Instructor

The Ohio State University

Instructor • Transition Precalculus: Fall 2012

• Precalculus: Spring 2013

• Transition Engineering Calculus: Fall 2012

• Calculus I: Fall 2013 • Calculus II: Spring 2014

• Engineering Mathematics: Spring 2013, Spring 2014

Georgia Institute of Technology

Instructor • Finite Mathematics: Spring 2012, Summer 2012

• Calculus III: Summer 2010, Summer 2011

TA • Calculus II: Spring 2008, Spring 2009, Spring 2010, Fall 2010, Fall 2011

• Calculus III/Calculus III for Computer Science: Fall 2007, Fall 2009, Spring 2011

• Differential Equations: Summer 2007, Summer 2008, Fall 2008