
CONTACT INFORMATION	Department of Mathematics University of Oklahoma Norman, OK 73019, USA	<i>Email:</i> rtang@math.ou.edu <i>Webpage:</i> www.math.ou.edu/~rtang/
CITIZENSHIP	Australian	
RESEARCH INTERESTS	Low-dimensional Topology, Geometric Group Theory, Teichmüller Theory, Computational Topology, Dynamical Systems	
EDUCATION	<p>University of Warwick, Coventry, United Kingdom, October 2009 – July 2013 PhD Mathematics, Thesis: <i>Covering maps and hulls in the curve complex</i> Supervisor: Brian Bowditch</p> <p>University of Sydney, NSW, Australia, 2005 – 2008 B Science (Honours), First Class Honours with University Medal</p>	
ACADEMIC POSITIONS	<p>University of Oklahoma, Norman, Oklahoma, USA, August 2014 – present Postdoctoral faculty member</p>	
SHORT-TERM POSITIONS	<p>University of Sydney, NSW, Australia, January 2014 – June 2014 External Lecturer/Tutor</p> <p>Institute for Computational and Experimental Research in Mathematics, Brown University, Providence, Rhode Island, USA, September – December 2013 Postdoctoral visitor for the “<i>Low-dimensional Topology, Geometry, and Dynamics</i>” semester program</p> <p>Polish Academy of Sciences (IMPAN), Warsaw, Poland, April – June 2013 Postdoctoral visitor; Mentor: Piotr Przytycki</p>	
SELECTED AWARDS	<p>University of Warwick</p> <ul style="list-style-type: none"> • Faculty of Science Doctoral Thesis Award, 2014 • Warwick Postgraduate Research Scholarship, 2009 – 2012 <p>University of Sydney</p> <ul style="list-style-type: none"> • University Medal, 2009 • Honours Scholarship, 2008 • Dean’s Scholarship in Science, 2008 • Barker Scholarship No IV (shared), 2008 • Dean’s Honour List, 2006 – 2008 • Continuing Undergraduate Scholarship, 2006 • Farrand and Science Scholarship, 2005 	
PUBLICATIONS AND PAPERS	<p><i>The curve complex and covers via hyperbolic 3-manifolds</i>, Geometriae Dedicata, December 2012, Volume 161, Issue 1, pp 233-237, DOI: 10.1007/s10711-012-9703-7.</p> <p><i>Projections in the curve complex arising from covering maps</i>, preprint, October 2013 (accepted in Pacific Journal of Mathematics pending revisions)</p> <p><i>Shadows of Teichmüller discs in the curve graph</i> (with Richard Webb), preprint (submitted), October 2015</p>	

TEACHING
EXPERIENCE

University of Oklahoma

Lecturer for

- One section of *Linear Algebra* (Spring 2016)
- Two sections of *Calculus III* (vectors functions; sequences and series) (Fall 2015)
- Two sections of *Calculus IV* (multivariable calculus) (Spring 2015)
- One section of *Calculus II* (integral calculus) (Fall 2014)

University of Sydney

- Lecturer for 1st year *Discrete Mathematics* (Summer 2014)
- Tutor for 2nd year *Discrete Mathematics & Graph Theory* (Semester 1 2009, Semester 1 2014), 1st year *Applications of Calculus* (Semester 1 2014), 1st year *Discrete Mathematics* (Semester 2 2008, Summer 2013 & 2014), 2nd year *Linear Mathematics & Vector Calculus* (Summer 2013), and 1st year *Linear Algebra* (Semester 1 & 2 2008, Semester 1 2009).
- Teacher for *Extension 1 Mathematics* bridging course (February 2009)

University of Warwick

- Teaching assistant for 4th year *Three-Manifolds* (Spring 2012), and 4th year *Geometric Group Theory* (Spring 2011, Spring 2012).
- Supervisor of small groups of undergraduate students (2009 – 2011).

TALKS GIVEN

Invited talks

“*Shadows of Teichmüller discs in the curve complex*”

- Geometry, Groups and Dynamics/GEAR Seminar, University of Illinois at Urbana-Champaign (October 2015)
- Redbud Topology Conference, University of Arkansas, USA (November 2014)
- Wasatch Topology Conference, Park City, Utah, USA (August 2014)

“*Projections in the curve complex arising from covering maps*”

- Geometry and Topology Seminar, Yale University (December 2013)
- Geometric Group Theory and Topology Seminar, Tufts University (November 2013)
- Geometry and Groups after Thurston, Trinity College Dublin, Ireland (August 2013)
- Differential Geometry and Topology Seminar, University of Wrocław (June 2013)
- North British Geometric Group Theory, University of Glasgow, UK (August 2012)

“*Covering relations between curve complexes*”

- Fourth de Brún Workshop: Group Actions, National University of Ireland, Galway (December 2010)

Contributed talks

- Spring Topology and Dynamics Conference, Bowling Green State University (May 2015)
- Geometric Group Theory Student Workshop, Będlewo, Poland (May 2013)
- Young Researchers in Mathematics, University of Bristol, UK (April 2012)
- TCC Algebra Event Day, University of Oxford, UK (April 2011)
- Young Researchers in Mathematics, University of Warwick, UK (April 2011)
- TCC Geometry Event Day, Imperial College London, UK (March 2011)

Seminars

- Geometry and Topology Seminar, University of Oklahoma (September 2014)
- Geometry, Topology and Analysis Seminar, University of Sydney (March 2014)
- Geometry and Topology Seminar at Brown and Yale, ICERM (October 2013)
- Postdoc and Graduate Student Seminar, ICERM (October 2013)
- Geometric Group Theory Seminar, IMPAN (April 2013)
- Group Actions Seminar, University of Sydney (February 2013)
- Geometry and Topology Seminar, University of Warwick (November 2012)
- Postgraduate Seminar, University of Warwick (January 2012, January 2011)

- Postgraduate Seminar, University of Sydney (September 2011, September 2010)

SERVICES

Co-organiser of the **Redbud Topology Conference**, University of Oklahoma, April 2016

Organiser of the **Geometry and Topology Seminar**, University of Oklahoma, 2015/16

Organiser of the **Postgraduate Seminar**, Warwick Mathematics Institute, 2011/12

Speaker in the following **Reading Seminars**

- Mapping class groups (Oklahoma), Fall 2015
- Convergence groups are Fuchsian (IMPAN), April 2013
- Hyperbolicity of the Complex of Free Factors (Warwick & Oxford), Autumn 2011
- The Ending Lamination Theorem (Warwick), Summer and Autumn 2011
- Geodesic laminations on surfaces (Warwick), Summer 2010

University of Warwick Taekwondo Club, 2009 – 2012

- Publicity officer and webmaster (2010/11)

Sydney University Mathematics Society, 2005 – 2009

- **Σ UMS Puzzle Hunt** co-ordinator (2009), puzzle writer and tester (2009, 2010, 2011, 2012, 2014), initial website setup (2009)
- Gave several **Σ UMS Talks** aimed at undergraduates (April 2009, September 2010, September 2011, May 2014)

CONFERENCE PARTICIPATION

- **Impact of Geometric Group Theory**, Centre International de Rencontres Mathématiques, Luminy, France (July 2015)
- **Dynamics and Geometry in the Teichmüller Space**, Centre International de Rencontres Mathématiques, Luminy, France (July 2015)
- **Workshop on Mapping Class Groups and $\text{Out}(F_N)$** , University of Texas, Austin, TX, USA (May 2015)
- **Introductory Workshop: Dynamics on Moduli Spaces of Geometric Structures**, MSRI, Berkeley, CA, USA (January 2015)
- **52nd Texas Geometry and Topology Conference**, University of Texas, Austin, TX, USA (November 2014)
- **Sixth Ahlfors–Bers Colloquium**, Yale University, New Haven, CT, USA (October 2014)
- **Yamabe Memorial Symposium: Current Topics in Three–Manifolds**, University of Minnesota, Minneapolis, MN, USA (October 2014)
- **Geometric and Asymptotic Group Theory with Applications**, University of Newcastle, NSW, Australia (July 2014)
- **Computational and Algorithmic Topology**, University of Sydney, NSW, Australia (April 2014)
- **Geometric Structures in Low-Dimensional Dynamics**, ICERM, Providence, RI, USA (November 2013)
- **Topology, Geometry and Group Theory, Informed by Experiment**, ICERM, Providence, RI, USA (October 2013)
- **Exotic Geometric Structures**, ICERM, Providence, RI, USA (September 2013)
- **Interactions between low dimensional topology and mapping class groups**, Max Planck Institute for Mathematics, Bonn, Germany (July 2013)
- **Cube complexes and 3–manifolds**, University of Illinois, Chicago, USA (May 2013)
- **British topology meeting**, University of Cambridge, UK (September 2012)
- **Measure and asymptotics in group theory and low-dimensional geometry**, Trinity College Dublin, Ireland (August – September 2012)
- **Progress in low-dimensional topology**, Centre for Quantum Geometry of Moduli Spaces, Aarhus University, Denmark (August 2012)

- Cubical complexes and applications, International Centre for Mathematics Sciences, Edinburgh, UK (July 2012)
- Topology and Groups (conference and summer school), Freie Universität Berlin, Germany (June 2012)
- Rigidity and Flexibility in Dimensions 2, 3 and 4, Centre International de Rencontres Mathématiques, Luminy, France (May 2012)
- The Geometry and Dynamics of Teichmüller Spaces, Trinity College Dublin, Ireland (August – September 2011)
- Aspects of hyperbolicity in geometry, topology, and dynamics, University of Warwick, UK (July 2011)
- Geometric presentations of finite and infinite groups, University of Birmingham, UK (July 2011)
- Geometry and Arithmetic of Lattices, University of Durham, UK (July 2011)
- Recent advances in geometric group theory, University of Southampton, UK (June – July 2011)
- Geometry and Analysis on Graphs and Groups, University of Oxford, UK (November 2010)
- Postgraduate Group Theory Conference, University of St. Andrews, UK (June 2010)
- Geometry, Analysis and Logic of Groups, University of Newcastle, UK (April 2010)
- Young Researchers in Mathematics, University of Cambridge, UK (March 2010)
- AMSI Summer School in Mathematics, University of Wollongong, NSW, Australia (Jan – Feb 2009)
- ICE-EM/AMSI Summer School in Mathematics, Monash University, VIC, Australia (Jan – Feb 2008)

COMPUTING
SKILLS

Basic Python and Sage