CONTACT INFORMATION	Mathematics Institute University of Warwick Coventry CV4 7AL United Kingdom	*E-mail:* robert.tang@warwick.ac.uk *Webpage:* www.warwick.ac.uk/~mariam/

CITIZENSHIP Australian

RESEARCH INTERESTS Low-dimensional Topology, Geometric Group Theory, Teichmüller Theory, Hyperbolic Geometry, Computational Topology, Dynamical Systems

EDUCATION

The University of Warwick, Coventry, United Kingdom
PhD Mathematics, October 2009 – July 2013
- Thesis title: Covering maps and hulls in the curve complex
- Supervisor: Brian Bowditch

The University of Sydney, NSW, Australia
Bachelor of Science (Honours), Pure Mathematics, 2005 – 2008
- Honours Grade: First Class with the University Medal
- Thesis Topic: Graphs of Groups and the Bass–Serre Theorem
- Supervisor: Bob Howlett

VISITING POSITIONS

Institute for Computational and Experimental Research in Mathematics, Brown University, Providence, Rhode Island, USA

Visitor for the program "Low-dimensional Topology, Geometry, and Dynamics"
September – December 2013

Polish Academy of Sciences (IMPAN), Warsaw, Poland

Postdoctoral researcher; Mentor: Piotr Przytycki, April – June 2013

SELECTED AWARDS

University of Warwick
- Warwick Postgraduate Research Scholarship, 2009 – 2012

University of Sydney
- Vice-Chancellor's Research Scholarship, 2009
- Summer Vacation Scholarship, Dec 2007 – Feb 2008
- Academic Merit Prize, 2008
- 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

The curve complex and covers via hyperbolic 3–manifolds,
Geometriae Dedicata, December 2012, Volume 161, Issue 1, pp 233-237,
DOI: 10.1007/s10711-012-9703-7.

Projections in the curve complex arising from covering maps,
preprint (submitted), October 2013

Shadows of Teichmüller discs in the curve complex (with Richard Webb),
In preparation

TEACHING EXPERIENCE	**University of Sydney**, Mar 2008 – Jul 2009, Jan 2013 – present

TEACHING
EXPERIENCE

University of Sydney, Mar 2008 – Jul 2009, Jan 2013 – present
- 1st year *Discrete Mathematics*: Lecturer (Summer 2014) and Tutor (Semester 2 2008, Summer 2013, Summer 2014)
- Tutor for 2nd year *Linear Mathematics & Vector Calculus* (Summer 2013)
- Tutor for 1st year *Linear Algebra* at Normal, Life science and Advanced levels (Semester 1 & 2 2008, Semester 1 2009).
- Tutor for 2nd year *Discrete Mathematics & Graph Theory* (Semester 1 2009)
- Teacher for *Extension 1 Mathematics* bridging course (February 2009)

University of Warwick, October 2009 – March 2012
- Teaching assistant for 4th year *Three-Manifolds* (Spring 2012). Marked weekly assignments.
- Teaching assistant for 4th year *Geometric Group Theory* (Spring 2011, Spring 2012). Prepared example sheets and also filled in as lecturer on two occasions.
- Supervisor of small groups of undergraduate students. Marked weekly assignments (2009 – 2011).

TALKS GIVEN

Conferences and Workshops
- *On various projections maps in the curve complex*, Geometry and Groups after Thurston, Trinity College Dublin, Ireland (August 2013)
- *Thurston's compactification of Teichmüller space*, Geometric Group Theory Student Workshop, Będlewo, Poland (May 2013)
- *Projections in the curve complex arising from covering maps*, North British Geometric Group Theory, University of Glasgow, UK (August 2012)
- *Coarse geometry of the curve complex via intersection numbers*, Young Researchers in Mathematics, University of Bristol, UK (April 2012)
- *The mapping class group and the curve complex*, TCC Algebra Event Day, University of Oxford, UK (April 2011)
- *Maps between curve complexes induced by covers*, Young Researchers in Mathematics, University of Warwick, UK (April 2011)
- *The curve complex and covers*, TCC Geometry Event Day, Imperial College London, UK (March 2011)
- *Covering relations between curve complexes*, Fourth de Brún Workshop: Group Actions, National University of Ireland, Galway (December 2010)

Seminars
- Geometry and Topology Seminar, Yale University (December 2013)
- Geometric Group Theory and Topology Seminar, Tufts University (November 2013)
- Geometry and Topology Seminar at Brown and Yale, ICERM (October 2013)
- Postdoc and Graduate Student Seminar, ICERM (October 2013)
- Differential Geometry and Topology Seminar, University of Wrocław (June 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)
- Postgraduate Seminar, University of Sydney (September 2011)
- Postgraduate Seminar, University of Warwick (January 2011)
- Postgraduate Seminar, University of Sydney (September 2010)

OTHER
CONFERENCES
ATTENDED

- 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)

SERVICES

Postgraduate Seminar, Warwick Mathematics Institute
- Organiser (2011/12)

Speaker in the following **Reading Seminars**
- Convergence groups are Fuchsian (IMPAN), April 2013
- Hyperbolicity of the Complex of Free Factors (Warwick and 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
- ΣUMS Puzzle Hunt, Co-ordinator (2009), puzzle writer and tester (2009 – 2012), initial website setup (2009)
- Gave several ΣUMS Talks aimed at undergraduates (April 2009, September 2010, September 2011)

COMPUTING SKILLS

Beginner Python, Matlab