Hadi Bigdely

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09/2012-09/2013

09/2011-08/2012 09/2008-08/2012

09/2008-08/2009

09/2008-08/2009

Research Interests:

Geometric group theory and its applications in topology of 3-manifolds. Specifically, relatively hyperbolic groups, CAT(0) cube complexes, small-cancellation theory.

Education:

PhD. McGill University, Mathematics, (2008-2013), anticipated. Advisor: Daniel T. Wise.

Graduate researcher at Shahid Beheshti University, (2006-2008).

M.Sc. University of Tehran, Mathematics, (2003-2006). Dissertation Title: "Non-Commuting Graph of a Group", Adviser: M. R. Darafsheh.

B.Sc. University of Tabriz, Mathematics, (1999-2003).

Research Fellowships:

- Bourse de l'ISM (ISM)
- Graduate Excellence fellowships (GEF)
- MIDA fellowships
- Provost Graduate Fellowship (PROGF)
- Principles Graduate Fellowships (PGF)

Prizes and Distinctions:

- Ranked 13th, "National Mathematical Olympiad for Undergraduate Students", Iran, 2003.

- Ranked 14th, "National Entrance Examination for Higher Education", among 5000 Mathematics undergraduate participants, Iran, 2003.

- First rank, "Iranian Undergraduate Mathematical Competition among North Universities of Iran", Iran, 2002.

- Bronze medal, "23rd Annual University Contest in Mathematics", Iranian Mathematical Society, 2002.

- Awarded Tabriz University fellowship for the junior best class student, Iran, 2002.

Publications:

- "A Non-Quasiconvex Embedding of Relatively Hyperbolic Groups", submitted.

- "Quasiconvexity and Relatively Hyperbolic Groups That Split", (with D. T. Wise). *Michigan Math. J.*, To appear.

- "C(6) groups do not contain F_2 X F_2", (with D. T. Wise). Journal of Pure and Applied Algebra. 217, (2013) 22-30.

- "Some Results on Non-Commuting Graph of a Finite Group", (with M. R. Darafsheh, A. Bahrami, M. Davoudi Monfared) Ital. J. Pure Appl. Math. No. 27 (2010), 107–118.

- "Some Properties on Isoclinism of Lie Algebras and Covers", (with A. R. Salemkar, V. Alamian) *Journal of Algebra and Its Applications*. Volume: 7, Issue: 4 (2008) pp. 507-516.

Teaching Experience:

Instructor:

- MATH 141, "Calculus 2", McGill University,	Summer 2012
- Calculus 2, Shahid Beheshti University,	Fall 2006
- Calculus 2, Shahid Beheshti University,	Fall 2007
Teaching Assistant:	
- MATH 139, "Calculus 1 with Precalculus", McGill University,	Fall 2012
- MATH 150, "Calculus A", McGill University,	Winter 2012
- MATH 131, "Linear Algebra and Geometry", McGill University,	Fall 2011
- MATH 123, "Linear Algebra and Probability", McGill University,	Winter 2011, Fall 2010
- MATH 141, "Calculus 2", McGill University,	Fall 2010, Winter 2009
- MATH 122, "Calculus for Management", McGill University,	Fall 2009
- Algebra 1, "Groups, Rings, Fields", University of Tehran,	Winter 2004-2005
- Algebra 2, "Galois Theory", University of Tehran,	Fall 2004
- Linear Algebra, University of Tehran,	Winter 2003

Seminar and conference talks:

-(Invited) " Quasiconvex Subgroups of *Relatively Hyperbolic Groups*", Canadian Mathematical Society (CMS) Winter Meeting, December 2012.

- (Invited) "*Relatively Hyperbolic Groups and Their Quasiconvex Subgroups",* Ottawa-Carleton Joint Algebra Seminar, Ottawa, October 2012.

- "Packing Subgroups in Relatively Hyperbolic Groups", Geometric Group Theory Seminar, Montreal, April 2012.

- "Rank Gradient, Cost of Groups and an application towards Rank Versus Heegaard Genus Problem", McGill Ergodic Group Theory Day, Montreal, April 2011.

- "Quasi-Convexity and Relatively Hyperbolic Groups That Split", CIRGET Junior, Montreal, November 2011.

- "Residually free 3-manifolds", Topology of 3-manifold seminar, UQAM, Montreal, April 2010.

- "*Codimension-1 subgroups and splitting of groups",* Geometric & Combinatorial Group Theory Seminar, McGill, Montreal, April 2010.

Conferences Attended:

- G³ Conference, "Geometric Groups on the Gulf Coast", (April 5-8) 2012, Pensacola Beach, Florida.

- CBMS-NSF Conference, "3-Manifolds, Artin Groups and Cubical Geometry", City University of New York, (August 1-5) 2011.

- OSU workshop, "Systolic groups and CAT(0) cubical complexes", Ohio State University, (May 9-13) 2011.

- OSU workshop, "Mapping Class Groups", Ohio State University, (May 2-6) 2011.

- OSU workshop and conference, "buildings, automorphisms of RAAGs, outer space", Ohio State University, (April 25- May 1) 2011.

- Semester-Long Program, "Thematic Semester, Geometric Combinatorial and Computational Group theory", Centre de Recherches Mathématiques, Université de Montréal, (July-December) 2010.

- OSU Summer School, "Examples of Group Actions", Ohio State University, (May 28-June 3) 2010.

- Conference, "Virtual Properties of 3-Manifolds", UQAM, Montreal, (April 19-21) 2009.

- OSU Summer School, "More Examples of Groups", Ohio State University, (May 11-16) 2009.

- "International Workshop on Non-commutative Geometry", School of Mathematics, IPM, Tehran, Iran, September 2005.

Miscellaneous Academic Activities and Training:

- Member of the Mathematics and Statistics house committee, (2012-2013).

- The representative of graduate students in "teaching and student supervision awards committee" (TESSA) in the department of mathematics and statistics, (2011-2012).

- Participating in "Tomlinson Project in University-Level Science Education, (T-Pulse)". A workshop to improve the teaching skills, (July 2009).