

MICHAEL HULL

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RESEARCH INTERESTS

Geometric group theory, especially notions of negative curvature in group theory and how these relate to the algebra, geometry, analysis, and logic of groups.

EMPLOYMENT

Research Assistant Professor *August 2013-May 2016*
University of Illinois at Chicago

EDUCATION

Ph.D. in Mathematics *May 2013*

Advisor: Denis Osin
Vanderbilt University, Nashville, TN

B.S. in Mathematics graduated *Summa Cum Laude* *May 2008*
Furman University, Greenville, SC

PAPERS

D. Groves, M. Hull, *Homomorphisms to acylindrically hyperbolic groups*, in preparation.

M. Hull, D. Hume, P. Wesolek, *Complexity of finite decomposability in the space of marked groups*, in preparation.

D. Groves, M. Hull, *Abelian splittings of right-angled Artin groups*, arXiv:1502.00129, to appear in Proceedings of the MSJ-SI.

M. Hull, D. Osin, *Transitivity degrees of countable groups and acylindrical hyperbolicity*, arXiv:1501.04182, to appear in Israel J. Math.

R. Coulon, M. Hull, C. Kent, *A Cartan-Hadamard type result for relatively hyperbolic groups*, arXiv:1311.0773, to appear in Geom. Dedicata.

M. Hull, *Small cancellation in acylindrically hyperbolic groups*, arXiv:1308.4345, to appear in Groups, Geom., & Dynam.

M. Hull, D. Osin, *Induced quasi-cocycles on groups with hyperbolically embedded subgroups*. Alg. Geom. Topology. **13** (2013), 2635-2665.

M. Hull, D. Osin, *Conjugacy growth of finitely generated groups*. Adv. Math. **235** (2013), 361-389.
Corrigendum to "Conjugacy growth of finitely generated groups" Adv. Math. (2015), 10.1016/j.aim.2015.07.014.

M. Hull, *Conjugacy growth in polycyclic groups*. Arch. Math. **96** (2011), no. 2, 131-134.

CONFERENCE AND SEMINAR TALKS

Acylindrically hyperbolic groups *June 2015*
Geometry/Topology Seminar, University of Chicago.

Abelian splittings of right-angled Artin groups *May 2015*
Spring Topology and Dynamics Conference. Bowling Green State University.

Acylindrically hyperbolic groups *April 2015*
Geometry and Topology Seminar, University of Wisconsin.

Acylindrically hyperbolic groups *November 2014*
Geometry & Topology Seminar, Yale University.

Multiply transitive actions of countable groups *October 2014*
Colloquium, Bowling Green State University.

Acylindrically hyperbolic groups and small cancellation quotients *September 2014*

Geometry, Groups and Dynamics/GEAR Seminar, University of Illinois at Urbana-Champaign. <i>Conjugacy growth in groups</i> Growth In Groups 2014. Neuchâtel, Switzerland.	<i>June 2014</i>
<i>Acylindrically hyperbolic groups</i> Topological Methods in Group Theory. Columbus, Ohio.	<i>June 2014</i>
<i>Acylindrically hyperbolic groups</i> Geometry & Topology Seminar, University of Toronto.	<i>March 2014</i>
<i>Acylindrically hyperbolic groups</i> Special Session on Geometric Group Theory, AMS-MAA Joint Mathematics Meetings. Baltimore, Maryland.	<i>January 2014</i>
<i>Conjugacy Growth in Finitely Generated Groups</i> Special Session on Algorithmic Problems of Group Theory and Their Complexity, AMS-MAA Joint Mathematics Meetings. San Diego, California.	<i>January 2013</i>
<i>Quasimorphisms and bounded cohomology of groups with hyperbolically embedded subgroups</i> Special Session on Asymptotic Group Theory, AMS Spring Western Sectional Meeting. Honolulu, Hawaii.	<i>March 2012</i>
<i>Conjugacy Growth in Finitely Generated Groups</i> Geometric and Asymptotic Group Theory with Applications 5. Barcelona, Spain.	<i>July 2011</i>

TEACHING EXPERIENCE

Research Assistant Professor, University of Illinois at Chicago. Instructor for:	<i>Fall 2013-Present</i>
<ul style="list-style-type: none"> • Calculus III (MATH 210). • Abstract Algebra I (MATH 330). • Abstract Algebra II (MATH 431). • Linear Algebra (MATH 320). • Topology (MATH 445). • Abstract Algebra (MTH 435) (For math education majors and masters students). • Advanced Topics in Geometric and Differential Topology: Hyperbolic Groups (MATH 569). • Independent study on group theory and Rubik's cubes (MATH 469). 	
Graduate Student Teaching Assistant, Vanderbilt University. Instructor for:	<i>Fall 2008 - Spring 2013</i>
<ul style="list-style-type: none"> • Calculus I (MATH 155A and MATH 150A). • Statistics computer lab (MATH 218L). • Math Review ELC: SABIC (A precalculus summer course for foreign students preparing to attend college in the U.S.). 	
TA for:	
<ul style="list-style-type: none"> • Calculus I & II (MATH 150A and MATH 150B). 	

GRANTS AND AWARDS

AMS-Simons travel grant, AMS and the Simons Foundation.	<i>June 2015</i>
B.F. Bryant Prize for Excellence in Teaching, Vanderbilt University.	<i>May 2013</i>
Graduate student travel grant, AMS.	<i>January 2013</i>
GSC travel grant, Vanderbilt Graduate Student Council.	<i>January 2013</i>
Graduate student travel grant, Vanderbilt University Graduate School.	<i>July 2011</i>
Delany Medal in Mathematics, Furman University.	<i>May 2008</i>
Mathematics Faculty Award for Excellence, Furman University.	<i>May 2008</i>

OTHER ACTIVITIES

- Organizer, Geometry, Topology and Dynamics Seminar,
University of Illinois at Chicago. *August 2014-May 2016*
- Oral Competition Judge, ICTM Regional High School Math Contest,
University of Illinois at Chicago. *February 2015*
- Judge, QED: Chicago's Youth Math Symposium,
Walter Payton College Preparatory High School. *December 2014*
- Panelist, AWM panel "Surviving Graduate School,"
University of Illinois at Chicago. *November 2014*
- Speaker, Payton Citywide Math Circle,
Walter Payton College Preparatory High School. *November 2014*
- Speaker, Payton Citywide Math Circle,
Walter Payton College Preparatory High School. *November 2013*
- Organizer, Topology and Group Theory Seminar,
Vanderbilt University. *August 2012-May 2013*
- Organizer and Speaker, Undergraduate Seminar in Mathematics,
Vanderbilt University. *August 2009-May 2013*
- Organizer, *Special Session on Asymptotic Group Theory*,
AMS Spring Western Sectional Meeting, Honolulu, Hawaii. *March 2012*
- Referee for: *August 2013-Present*
- *Algebraic & Geometric Topology.*
 - *Annals of Combinatorics.*
 - *Geometry & Topology.*
 - *Groups, Geometry and Dynamics.*
 - *Glasgow Mathematical Journal.*
 - *International Journal of Algebra and Computation.*
 - *Proceedings of the American Mathematical Society.*