

Priyam Patel

CONTACT INFORMATION	Department of Mathematics University of California, Santa Barbara Santa Barbara, CA 93106	<i>E-mail:</i> patel@math.ucsb.edu <i>Mobile:</i> (201) 388-2225 <i>Webpage:</i> www.patelp.com
RESEARCH INTERESTS	My research interests lie in the fields of low-dimensional topology, hyperbolic geometry, and geometric group theory. In particular, I study hyperbolic manifolds, separability properties of groups, right-angled Artin groups, the mapping class groups of surfaces (of both finite and infinite type), Teichmüller theory, the combinatorics of 3-manifolds, and representations of surface and 3-manifold groups.	
POSITIONS	University of California, Santa Barbara , Visiting Assistant Professor Purdue University , Golomb Visiting Assistant Professor	2016–present 2013–2016
EDUCATION	Rutgers University, New Brunswick , Ph.D. in Mathematics (Advisor: Feng Luo) New York University , B.A. in Mathematics (Magna Cum Laude with Honors)	May 2013 May 2008
AWARDS & GRANTS	NSF Grant DMS-1812014: The Covers, Symmetries, and Combinatorics of Manifolds AWM Travel Grant AIM Workshop Grant "Big Mapping Class Groups" AMS-Simons Travel Grant Spira Teaching Award for Excellence in Undergraduate Teaching National Society for Collegiate Scholars Inspiring Integrity Award Purdue Favorite Faculty Award GAANN Fellowship for Graduate Studies in Mathematics Rutgers University, Teaching Excellence Award	2018-2021 2018 2018 2015–2017 2016 2016 2015 2011 & 2008 2011
PAPERS	On a Theorem of Peter Scott. <i>Proc. Amer. Math. Soc.</i> 142 (2014), p. 2891–2906. Residual Finiteness Growths of Virtually Special Groups. <i>Math. Z.</i> 279 (2015), no. 1–2, p. 297–310. (with K. Bou-Rabee and M.F. Hagen) On the Residual Finiteness Growths of Particular Hyperbolic Manifold Groups. <i>Geom. Dedicata.</i> 185 (2016), Issue 1, p. 87–103. Quantifying separability in virtually special groups. <i>Pacific J. Math.</i> 284-1 (2016), p. 103-120. (with M.F. Hagen) Zariski Closures and Subgroup Separability. <i>Selecta Math.</i> 23 (2017), Issue 3, p. 2019-2027. (with L. Louder and D.B. McReynolds) Building hyperbolic metrics suited to closed curves and applications to lifting simply. <i>Math. Res. Lett.</i> 24 (2017), no. 3, p. 593-617. (with T. Aougab, J. Gaster, and J. Sapir) Algebraic and topological properties of big mapping class groups. <i>Algebr. Geom. Topol. (Accepted)</i> Available at: arXiv:1703.02665 [math.GT] (with N.G. Vlamis) The first integral cohomology of pure mapping class groups. <i>Submitted.</i> Available at: arXiv:1711.03132 [math.GT] (with J. Aramayona and N.G. Vlamis) Effective virtual and residual properties of some arithmetic hyperbolic 3-manifolds. <i>Submitted.</i> Available at: arXiv:1806.02360 [math.GT] (with J. DeBlois and N. Miller)	

Covers of surfaces, Kleinian groups, and the curve complex.

In preparation. (with T. Aougab and S. Taylor)

A combinatorial characterization of hyperbolic 3-manifolds: Thurston's Lego.

In preparation. (with D. Cooper)

MENTORING	Mark Pengitore, Ph.D. student at Purdue University (advisor: Ben McReynolds)	2013–2016
	Milana Golich, undergraduate student at Purdue University	2014–2016
UPCOMING INVITED TALKS	Geodesics on real hyperbolic manifolds , Connecticut College	August 2018
	University of Washington Rainwater Seminar	October 2018
	Classical and quantum 3-manifold topology , Melbourne, Australia	December 2018
PAST INVITED TALKS (CONFERENCES & COLLOQUIA)	Thin groups in Number Theory, Geometry and Topology , Rice University	May 2018
	Geometry of Teichmüller space and mapping class groups , University of Warwick	April 2018
	Graduate Student Topology and Geometry Conference , UIC	April 2018
	Mathematical Congress of the Americas , Special Session on Geometric Group Theory	July 2017
	Shanks Conference on Low-dimensional Topology and Geometry , Vanderbilt	May 2017
	Redbud Geometry/Topology Conference , University of Arkansas	April 2017
	AWM Research Symposium: <i>Special session on Geometric Group Theory</i> , UCLA	April 2017
	Spring Topology and Dynamics Conference <i>Special session on Geometric Group Theory</i> , NJCU	March 2017
	Bowdoin College Colloquium	January 2017
	Louisiana State University Colloquium	January 2017
	University of Fribourg Colloquium	December 2016
	Temple University Colloquium	November 2016
	Effective and Algorithmic Methods in Hyperbolic Geometry and Free Groups	May 2016
	Women and Math Research Seminar Series , Institute for Advanced Study	May 2016
	Eastern Illinois Geometry, Dynamics and Topology Conference	April 2016
	Bloomington Geometry Workshop , Bloomington, IN	April 2016
	Sectional AMS Meeting Special Session: <i>Geometry of groups, surfaces and 3-manifolds</i> , Rutgers University	November 2015
	University of Texas at Austin Topology Seminar	October 2015
	Wasatch Topology Conference , Park City, UT	August 2015
	Sectional AMS Meeting Special Session: <i>Interactions Between Geometry, Group Theory & Number Theory</i> , Michigan State University	March 2015
Sectional AMS Meeting Special Session: <i>Geometric Group Theory and Topology</i> , University of Alabama	March 2015	
Third Annual Midwest Women in Mathematics Symposium Special Session: <i>Algebraic and Geometric Topology</i> , Dominican University	March 2015	
Geometry, Groups and Dynamics , Rose–Hulman Institute	February 2015	
Young Geometric Group Theory in the Midwest , Madison, WI	November 2014	
Topology Students Workshop Research Talk, Georgia Tech	June 2014	

	Geometric Groups on the Gulf Coast Conference	March 2013
	Joint Meetings of the AMS Special Session: <i>Topics in geometric and analytic methods in Teichmüller theory and hyperbolic geometry</i>	January 2013
PAST INVITED TALKS (SEMINARS)	Berkeley Topology Seminar	February 2018
	Rice University Topology Seminar	February 2018
	Rutgers Topology Seminar	October 2017
	University of Southern California Geometry and Topology Seminar	April 2017
	Caltech Geometry and Topology Seminar	April 2017
	University of Glasgow Geometry and Topology Seminar	December 2016
	University of Chicago Geometry/Topology Seminar	November 2016
	San Francisco State University Algebra/Geometry/Combinatorics Seminar	October 2016
	Rutgers University Topology/Geometry Seminar	April 2016
	CUNY Hyperbolic Geometry Seminar	February 2016
	Temple University Geometry-Topology Seminar	April 2015
	Rutgers University Topology Seminar	April 2015
	Cornell University Topology/Geometric Group Theory Seminar	April 2015
	University of Toronto Geometry & Topology Seminar	February 2015
	Purdue University Geometry Seminar	February 2015
	Stanford University Geometry & Topology Seminar	October 2014
	University of California, Berkeley Topology Seminar	October 2014
	University of Illinois at Urbana-Champaign GEAR Seminar	October 2014
	Arizona State University Differential Geometry Seminar	September 2014
	Michigan State University Geometry Seminar	April 2014
Indiana University, Bloomington Teichmüller Theory Seminar	September 2013	
CUNY Geometry and Topology Seminar	April 2013	
Rutgers University Topology Seminar	February 2013	
Purdue University Geometry Seminar	February 2013	
University of Michigan Topology Seminar	January 2013	
SERVICE ACTIVITIES	Panelist: UCSB AWM Panel "Graduate School and Beyond"	April 2018
	Host: UCSB Faculty Nights, "An uncensored discussion about gender discrimination." <i>Faculty Nights is an interactive event that bridges the gap between students and faculty through the exploration of a hot topic.</i>	February 2018
	Speaker: UCSB AWM Research Talk for Undergraduates	February 2018
	Co-organizer: UCSB Topology Seminar	2016–2017
	Speaker: Research talk for REU at UCSB	July 2017
	Co-organizer: UCSB AWM and Hypatian Seminar joint events	2016–present
	Panelist: Women in STEM Mentorship Program, Life in Academia Panel, UCSB	March 2017

Co-organizer: Topology Students Workshop, Georgia Institute of Technology June 2016
Professional development workshop for graduate students.

Teaching Assistant: Institute for Advanced Study Women and Mathematics Program May 2016

Co-organizer: Geometry, Groups, and Dynamics Conference, Indianapolis, IN March 2016

Referee Work: *Int. Math. Res. Not., Algebr. Geom. Topol.* 2015–present

Co-organizer: Purdue University Geometry Seminar 2013–2016

Basic Skills Workshop, Purdue University October 2015
Ran a workshop on networking, CVs, and academic webpages

Panelist: Basic Skills Workshop - Job Market Panel, Purdue University September 2014

Mentor: Topology Students Workshop, Georgia Institute of Technology June 2014
Professional development workshop for graduate students.

Co-founder and co-organizer: Math Women’s Tea, Rutgers University 2011–2013

Co-organizer: Rutgers University Women in Math Networking/Mentoring Dinners 2011–2013
Funded by Rutgers University NSF ADVANCE grant.

Grad representative: Graduate Student-Faculty Liaison Committee, Rutgers University 2010–2013

Teaching consultant, Rutgers University Summer 2012

Co-organizer: Graduate Student Seminar, Rutgers University 2010–2011

EDUCATIONAL
OUTREACH

Volunteer: Math outreach event at The Wolf Museum of Exploration + Innovation May 2018

Speaker: High school outreach, Avenues: The World School, New York, NY December 2017

NJ Partnership for Excellence in Middle School Mathematics 2012 & 2013
Instructional assistant for summer institute for middle school mathematics teachers.
 Assisted teachers in daily problem solving sessions.
 Helped generate discussion regarding improving methods of communication with students and ways to engage students more effectively.

TEACHING
EXPERIENCE

University of California, Santa Barbara

Instructor, Math 34A Calculus for the Life and Social Sciences (275 students) Spring 2018

Instructor, Math 34A Calculus for the Life and Social Sciences (300 students) Winter 2018

Instructor, Math 113 Non-Euclidean Geometry Fall 2017

Instructor, Math 8 Transition to Higher Mathematics and Math 6A Multi-Variable Calculus Spring 2017

Instructor, Math 8 Transition to Higher Mathematics (35 students) Winter 2017

Instructor, Math 6A Multi-Variable Calculus (100 students) Fall 2016

Purdue University

Instructor, Math 265 Linear Algebra for Engineers (two sections–40 students each) Spring 2016

Instructor, Math 351 Elementary Linear Algebra Fall 2015

Instructor, Math 351 Elementary Linear Algebra (two sections–40 students each) Spring 2015

Instructor, Math 351 Elementary Linear Algebra (two sections–40 students each) Fall 2014

Instructor, Math 351 Elementary Linear Algebra (two sections–40 students each) Spring 2014

Instructor, Math 265 Linear Algebra for Engineers (two sections–40 students each) Fall 2013

Rutgers University

Instructor, Math 103 Topics in Math for the Liberal Arts

Fall 2012

Instructor, Math 250 Introductory Linear Algebra

Summer 2011

Instructor, Math 135 Calculus I

Summer 2010

Head TA, Math 135 Calculus I

2010–2011

Shared administrative responsibilities with faculty course coordinator, and maintained online homework systems for the course.

Teaching assistant, Math 135 Calculus I

Spring 2010

Teaching assistant, Math 135 Calculus I

Fall 2010

Teaching assistant, Math 135 Calculus I

Spring 2011

Teaching assistant, Math 151 Calculus I

Fall 2009

REFERENCES

Feng Luo fluo@math.rutgers.edu

Alan Reid areid@math.utexas.edu

Ruth Charney charney@brandeis.edu

Darren Long long@math.ucsb.edu

Christopher Leininger clein@math.uiuc.edu

David Ben McReynolds dmcreyno@purdue.edu

Maria Isabel Bueno Cachadina (Teaching reference) mbueno@math.ucsb.edu

MISCELLANEOUS

Citizenship: United States of America