

Joshua Evan Greene

CONTACT INFORMATION	Department of Mathematics Boston College Chestnut Hill, MA 02467-3806	<i>E-mail:</i> joshua.greene@bc.edu
EMPLOYMENT	2015-present, Professor, Boston College 2011-2015, Assistant Professor, Boston College 2009-2011, NSF Postdoctoral Research Fellow, Columbia University	
VISITING POSITIONS	Spring 2017, '16, '14, '12, Visiting Scholar, University of Texas, Austin Spring 2010, Member, Mathematical Sciences Research Institute	
EDUCATION	2004-2009, Princeton University 2003-2004, University of Chicago 1998-2002, Harvey Mudd College Spring 2000, Budapest Semesters in Mathematics	Ph.D., Mathematics (2009) M.Sc., Mathematics (2004) B.S., Mathematics (2002)
AWARDS	2019-2020 Simons Fellow in Mathematics 2015-2020 NSF CAREER Award DMS-1455132 2013 Alfred P. Sloan Foundation Research Fellowship 2012-2015 NSF Research Grant DMS-1207812 2009-2012 NSF Post-doctoral Fellowship 2003-2006 NSF Graduate Research Fellowship 2003 AMS-MAA-SIAM Morgan Prize for Outstanding Research by an Undergraduate 1998 Westinghouse Science Talent Search Finalist	
PREPRINTS	On curves intersecting at most once, II, arxiv:1811.01413 , submitted. On curves intersecting at most once, arxiv:1807.05658 , submitted. w/ Y. Ni. Non-simple genus minimizers in lens spaces, arxiv:1305.0517 <i>Algebraic & Geometric Topology</i> , under revision.	
PUBLICATIONS	w/ J. Gaster and N. Vlamis. Coloring curves on surfaces, <i>Forum of Mathematics, Sigma</i> 6 (2018) e17, 42. w/ S. Lewallen and F. Vafaee. $(1, 1)$ L-space knots, <i>Compositio Mathematica</i> 154 (5) (2018) 918-933. Alternating links and left-orderability, <i>Proceedings of the American Mathematical Society</i> 146 (6) (2018) 2707-2709. Alternating links and definite surfaces, <i>Duke Mathematical Journal</i> 166 (11) (2017) 2133-2151. A note on applications of the d -invariant and Donaldson's theorem, <i>Journal of Knot Theory & its Ramifications</i> Special Issue for Tim Cochran 26 (2) (2017) 1740006 1-8. w/ A. Levine. Strong Heegaard diagrams and strong L-spaces, <i>Algebraic & Geometric Topology</i> 16 (2016) 3167-3208.	

L-space surgeries, genus bounds, and the cabling conjecture,
Journal of Differential Geometry **100** (3) (2015) 491-506.

Donaldson's theorem, Heegaard Floer homology, and knots with unknotting number one,
Advances in Mathematics **255** (2014) 672-705.

Lattices, graphs, and Conway mutation,
Inventiones Mathematicae **192** (3) (2013) 717-750.

The lens space realization problem,
Annals of Mathematics **177** (2) (2013) 459-511.

w/ L. Watson. Turaev torsion, definite manifolds, and quasi-alternating knots,
Bulletin of the London Mathematical Society **45** (5) (2013) 962-972.

A surgery triangle for lattice cohomology,
Algebraic & Geometric Topology **13** (2013) 441-451.

A spanning tree model for the Heegaard Floer homology of a branched double-cover,
Journal of Topology **6** (2) (2013) 525-567.

Conway mutation and alternating links,
Proceedings of the 18th Gökova Geometry-Topology Conference (2011) 31-41.

w/ S. Jabuka. The slice-ribbon conjecture for 3-stranded pretzel knots,
American Journal of Mathematics **133** (3) (2011) 555-580.

Homologically thin, non-quasi-alternating links,
Mathematics Research Letters **17** (1) (2010) 39-49.

Chromatic capacities of graphs and hypergraphs,
Discrete Mathematics **281** (1-3) (2004) 197-207.

A new short proof of Kneser's conjecture,
American Mathematical Monthly **109** (10) (2003) 918-920.

SEMINAR TALKS 2017-18 Glasgow, MIT ($\times 2$)
 2016-17 Austin, Georgia Tech, Ljubljana
 2015-16 Virginia, LA Joint Seminar (Caltech), Austin, PATCH (Temple), Columbia,
 Rice
 2013-14 Austin, Rice, Tennessee, Harvard, Princeton, Berkeley
 2012-13 Miami, Tufts, PATCH (Temple), Glasgow
 2011-12 Austin, Princeton, Cambridge, Zürich
 2010-11 Stony Brook, MIT, Princeton, Michigan State, UCLA, Boston College, LA Joint
 Seminar (Caltech), Penn, Columbia ($\times 2$), Wesleyan, Virginia, Leipzig, Rice, Indiana
 2009-10 Zürich ($\times 6$), Pisa, Columbia
 2008-09 Columbia, Yale, CUNY
 2007-08 Columbia, Virginia
 2003-04 UIC

COLLOQUIA AND July 2018, Dar es Salaam, Tanzania, Homological methods in algebra and geometry II
 CONFERENCES June 2018, Berkeley, Kirby-Scharlemann-Thompson birthday conference
 June 2018, Princeton, Low-dimensional topology and symplectic geometry mini-conference
 June 2018, Montréal, Characters in low-dimensional topology
 January 2018, UCLA, Low-dimensional topology and Floer theory workshop
 November 2017, UT Austin, Texas Geometry & Topology Conference ($\times 2$)
 September 2017, Warwick, Geometric topology in low dimensions
 July 2017, Oaxaca, Thirty Years of Floer Theory for 3-Manifolds ($\times 2$)
 June 2017, Isle of Skye, Scotland, Low-dimensional topology on Skye
 April 2017, U Mass Amherst, Floer homologies and topology of 4-manifolds
 October 2016, Dartmouth College, Colloquium
 August 2016, AIMS Ghana, Homological methods in algebra and geometry

July 2016, Regensburg, Floer homology and 3-manifolds
 June 2016, Bern, Mini Swiss Knots
 May 2016, ICTP Trieste, Geometric group theory and low-dimensional topology, 3-part minicourse
 April 2016, University of Dallas, Undergraduate Colloquium
 March 2016, Banff
 December 2015, IAS, Flows, foliations, and contact structures
 June 2015, Princeton, Low-dimensional topology
 June 2015, Geneva, Swiss Knots
 January 2015, University of Texas, Austin, Colloquium
 January 2015, Chinese University of Hong Kong, Low-dimensional topology
 December 2014, University of California, San Diego, Colloquium
 December 2014, Northwestern University, Colloquium
 April 2014, Graduate student topology conference young faculty speaker, Austin
 September 2013, Colby College
 July 2013, CIRM Luminy, Rolfsenfest
 May 2013, Simons Center, Low-dimensional topology
 May 2013, UQAM, The topology of 3-dimensional manifolds
 December 2012, Simons Center, Symplectic/low-dimensional topologies in interaction
 December 2012, University of Miami, Colloquium
 October 2012, U Akron, AMS sectional meeting
 April 2012, UT Austin, Workshop on topics in Dehn surgery
 December 2011, Georgia Tech, Tech topology conference
 June 2011, Simons Center, Homological invariants in low-dimensional topology
 June 2011, Gökova geometry/topology conference
 April 2011, UNLV, AMS sectional meeting
 November 2010, Boston College, Colloquium
 March 2010, MSRI, Homology theories of knots and links workshop
 January 2009, George Washington University, Knots in Washington
 August 2008, Stanford University, Holomorphic curves workshop
 November 2007, University of Nevada, Reno, Colloquium
 July 2005, Oxford University, Combinatorics conference
 January 2003, AMS-MAA Joint Meetings, Morgan Prize address

TEACHING

Boston College courses:

Fall 2018, MT 445, Combinatorics
 Spring 2018, MT 885, Graduate Combinatorics
 Fall 2017, MT 445, Combinatorics
 Fall 2016, MT445, Combinatorics
 Fall 2015, MT883, Introduction to Knot Theory
 Spring 2015, MT310, Introduction to Abstract Algebra
 Fall 2014, MT445, Combinatorics
 Fall 2013, MT808, Algebraic Topology
 Fall 2013, MT445, Combinatorics
 Spring 2013, MT855, Combinatorial methods in knot theory
 Fall 2012, MT216 (two sections), Introduction to Abstract Mathematics
 Fall 2011, MT451 Euclidean and non-Euclidean geometry

Earlier courses:

Fall 2009, Calculus III (two sections), Columbia University
 Fall 2007, Calculus I, Princeton University
 Spring 2007, Magic of numbers (TA and course development), Princeton University

Fall 2006, Linear algebra, Princeton University

Enrichment:

Summer 2010, 2015 Senior Staff, Hampshire College Summer Studies in Mathematics
Summer 1999, 2002, 2005 (and portions of other summers) Junior Staff, HCSSiM

ADVISING

Boston College Graduate Students:

Jacob Caudell (current)
Marius Huber (current)
Siddhi Krishna (current)
Clayton McDonald (current)

Boston College Senior Theses:

2018-19, Ruifan Yang (current)
2017-18, Andre Wei (computer science MSc, Carnegie Mellon)
2017-18, Anthony Trasatti (operations research PhD program, GA Tech)
2017-18, Arthur Diep-Nguyen
2016-17, Jian Zhou (mathematics PhD program, USC)
2014-15, Christopher Coscia (mathematics PhD program, Dartmouth)
2014-15, Robert Laudone (mathematics PhD program, UW Madison)
2014-15, Tashrika Sharma (Fulbright Fellow, math-art, Die Angewandte, Vienna)
2012-13, Lisa Piccirillo (NSF graduate fellow, mathematics PhD program, UT Austin)

OTHER ACTIVITIES January 2013-present, Trustee, Mathematical Staircase, Inc.

2019, Lead Organizer, Perspectives on Dehn Surgery Summer School, ICERM
2017, Co-organizer, 3-manifold Workshop, Isaac Newton Institute, Cambridge, England
2014-15, Co-organizer, Hamilton Conference, Trinity College, Dublin, Ireland
August 2014, Co-organizer, Link Homology Theories, Braids, and Contact Geometry, ICERM
April 2013, Co-organizer, AMS Sectional Meeting, Special Session, Boston College
May 2012, Co-organizer, Undergraduate Summer School, The Center for Mathematics at Notre Dame

2002-2003, Americorps Volunteer, Habitat for Humanity, Morehead, KY
Summer 2000, Research Experience for Undergraduates, Univ. Minnesota, Duluth