

Joan E. Licata

Curriculum Vitae

Department of Mathematics, Stanford University, Building 380, Stanford, CA 94305

Phone: (+49)178-5099107, E-mail: jelicata@stanford.edu

- Personal** United States citizen
- Research Interests** Heegaard Floer theory, knot theory, three-manifolds, contact homology
- Employment** Stanford University
Szegö Assistant Professor of Mathematics, 2007-2011
- Max Planck Institute for Mathematics
Visiting Scientist, 2008-2009
Bonn, Germany
- Education** Yale University, 2001-2007
Ph.D., Mathematics
Thesis advisors: Andrew Casson, Peter Ozsváth
Heegaard Floer link homology, the Thurston norm, and minimal-complexity surfaces
- Columbia University, fall 2006
Exchange Scholar
- Brown University, 1997-2001
Sc.B. Magna Cum Laude, Mathematics
- Budapest Semesters in Mathematics, spring 2000
- Papers** *The Thurston polytope for four-stranded pretzel links*
Algebraic & Geometric Topology 8 (2008) 211-243
- Constructing Seifert surfaces for n -bridge link projections*
arXiv:0801.4800, accepted for publication
Journal of Knot Theory and Its Ramifications
- Invariants for Legendrian knots in lens spaces*
arXiv:0901.4226, accepted for publication
Communications in Contemporary Mathematics
- Legendrian grid number one knots and augmentations of their differential algebras*
submitted
- Distinctions** Hoagland Award for Innovation in Teaching
Stanford University, 2008
- David Howell Premium for Excellence in Mathematics
Brown University Department of Mathematics, 2001
- Phi Beta Kappa

Talks

- The Mathematics of Knots: Theory and Application
Heidelberg, 2008
Invariants for Legendrian knots in lens spaces
- Topics in Topology Seminar, Max Planck Institute for Mathematics, 2008
(1) *Heegaard Splittings: Definitions and Properties*
(2) *An Introduction to Heegaard Floer Theory*
- Symplectic Geometry Seminar, University of Toronto, 2008
Heegaard Floer theory and the Thurston polytope of four-stranded pretzel links
- Topology Seminar, University of California at Berkeley, 2008
Pretzel links and the Thurston polytope
- Geometry/Topology Seminar, University of California at Davis, 2008
Constructing Seifert surfaces from n -bridge link projections
- Colloquium, Kansas State University, 2007
Pretzel links and the Thurston polytope
- Topology Seminar, Stanford University, 2007
Pretzel links and the Thurston polytope
- Georgia Topology Conference, 2007
Local link alterations and the Thurston norm
- Topology Seminar, Princeton University, 2007
Minimal-complexity surfaces in pretzel link complements
- Geometry-Topology Seminar, University of Pennsylvania, 2007
Link modifications and the Thurston norm
- Topology Seminar, University of Texas at Austin, 2006
Pretzel links and the Thurston polytope
- Topology Seminar, Yale University, 2006
Pretzel links and the Thurston polytope
- Geometric Topology Seminar, Columbia University, 2006
Pretzel links and the Thurston polytope

**Conferences
Attended**

- The Mathematics of Knots: Theory and Application
Heidelberg, 2008
- Holomorphic Curves: Algebraic Structures and Geometric Applications
Stanford, CA, 2008
- Kirbyfest
Berkeley, CA, 2008
- Floer FRG Meeting
Pajaro Dunes, CA, 2008
- New Perspectives and Challenges in Symplectic Field Theory (Yashafest)
Stanford, CA, 2007

Georgia Topology Conference
Athens, GA, 2007

Topology of 4-manifolds: Ronald Fintushel's 60th Birthday Conference
New Orleans, LA, 2006

Park City Mathematics Institute Graduate Summer School
Workshop on low-dimensional topology, 2006

3-Manifolds after Perelman
Edinburgh, Scotland, 2006

Joan Birman's Birthday Conference
New York, NY 2005

Clay Mathematics Institute Summer School
Gauge Theory, Floer Homology, and Low-Dimensional Topology
Budapest, Hungary 2004

Cornell Topology Festival
Ithaca, NY 2003-2005

Topology of Manifolds of Dimensions 3 and 4
Austin, TX, 2003

Teaching Instructor, Stanford University
Fundamental Concepts of Analysis (Math 171), spring 2008
Complex Analysis (Math 113), winter 2008
Linear Algebra and Calculus of Several Variables (Math 51), fall 2007 & 2009

Graduate course Teaching Assistant, IAS Women and Mathematics Program
Foliations and Laminations, 2008

Instructor, Yale University
Multivariable Calculus (Math 120), fall 2005, spring 2007
Differential Calculus (Math 112), fall 2004
Integral Calculus (Math 115), fall 2003

Teaching Assistant, Park City Mathematics Institute Graduate Summer School
Dehn Surgery and 3-manifolds, 2006

Graduate Teaching Center staff member, Yale University
Led workshop series "Fundamentals of Teaching Quantitative Reasoning"
Taught workshop for graduate students and posdocs teaching undergraduate science courses:
"Teaching Problem Solving"
Co-organizer of Spring Teaching Forum at Yale, 2006

Yale College Math and Science Tutor
Tutored undergraduates in all mathematics classes and related courses in other disciplines
Led academic orientation sessions for incoming minority students

Teaching Assistant, Yale University
Linear Algebra, spring 2003

Calculus Tutor, Yale University