



2011 Joint Mathematics Meetings, New Orleans, Louisiana
MAA Undergraduate Student Poster Session, January 7
Award Winners

2011 MAA Undergraduate Poster Session Outstanding Presentation Prize Winners

2. Category O for the Rational Cherednik Algebra of G_{12}

Christopher Policastro, MIT

18. Residual Analysis in Modeling Electroosmotic Flow

Ava Hamilton, Skidmore College

20. Elastohydrodynamic Instabilities in Gravity-Driven Flow

Wanyi Li, Macalester College

Cat Kealy, Beloit College

Charlie Talbot, University of Connecticut

26. A New Approach to Nick Trefethen's Four Bugs on a Rectangle Problem

Praveen S Venkataramana, Syntonix, Inc.

30. Computation of Fixing Numbers

Kara Greenfield, Worcester Polytechnic Institute

42. A Particle Based Model for Cell Movement

Haema Nilakanta, Iowa State University

Stephanie Cook, Georgia Institute of Technology

Noah Haibach, University of Pittsburgh

Sahil Shah, Columbia University

52. Compressed Zero-Divisor Graphs and Zero-Divisor Lattices of Finite Commutative Rings

Darrin Weber, Millikin University

Lane Bloome, Millikin University

58. Random Trinomials and Lower Binomials

Kenneth Brian Ascher, SUNY Stony Brook

74. Pattern Avoidance in Ternary Trees

Katie Peske, Concordia College

Sam Tay, Kenyon College

78. Lower Bounds for the Ropelength of Reduced Conformations

Robert McGuigan, San Jose State University

79. Benford's Law for Coefficients of Modular Forms and Partition Functions

Larry Rolin, University of Wisconsin-Madison

Theresa Anderson, Brown University

80. Bishop's Lemma and Boundaries of Lipschitz Function Algebras

Robert Allan Silversmith, Williams College
Ann Kathryn Johnston, Harvey Mudd College

85. A Weighted Least Squares Method for Elliptic Problems With Degenerate and Singular Coefficients

Matthew Hassell, SUNY Binghamton
Stephen Bidwell, Tufts University

87. Minimal surfaces and planar harmonic mappings

Amanda Rae Curtis, Wellesley College

101. Minimal Surface Transformations

Jamal Eric Lawson, Loyola University New Orleans
Ryan Donald Viertel, Brigham Young University

109. Estimating Survival Functions for Symmetric Distributions Under Peakedness Order Constraints

Sasha Indarte, Macalester College

114. Parity of k-regular Partition Functions

Liem P Nguyen, University of Wisconsin Oshkosh

115. The Energy of Graphs

Audrey M. Hubbard, Ave Maria University
Christian M. Woods, University of Pittsburgh

121. 2-Dimensional Shape Modeling

Christine E Caples, Fairfield University
Carlos Fernando Hernandez, California State University Fullerton

142. Exploring the Weighted Composition Operators on the Hardy and Bergman Space

Wenling Shang, Washington and Lee University

146. Exceptional ABC Triples for Frey Curves with Torsion Subgroups $Z_2 \times Z_4$ and $Z_2 \times Z_8$

Alexander Jesus Barrios, Brown University

168. Permissible Plane Embeddings of Ribbon Graph Blow-Ups

Sarah Jane Loeb, Harvey Mudd College

172. Why won't my garden hose stay put? Stability of coiled elastic filaments

Matthew Frank Lapa, Cornell University

183. The Number of Independent Sets and Graph Homomorphisms

Yufei Zhao, MIT / Cambridge

185. Vertex Identifying Codes

Ari Cukierman, College of William and Mary

187. Structure Groups of Pseudo-Riemannian Algebraic Curvature Tensors

Joseph Anthony Palmer, Truman State University

206. Constructing moduli spaces of low dimensional A - Algebras by extensions

Josh J Frinak, University of Wisconsin-Eau Claire

215. Determining the Number of Loops of Regular n -gons

Kathleen Carroll, Wheaton College

220. Generic Formal Fibers of a Commutative Ring

Philip Van Vu, Williams College

223. Extinction Equilibria in Stage-Structured Populations

Georgia Waite Pfeiffer, The College of William and Mary

234. Modeling the *Manduca sexta* Midgut

Jennifer Lea Garbett, Kenyon College

243. Encrypting with Elliptic Curve Cryptography

Anna Tracy, University of the South

259. Braid Groups and the Oriented Jones Polynomial

Ana-Cristina Jimenez, California State University, Fresno

Awards from the Special Interest Group of the MAA on Statistics Education

207. Bounds on the artificial phase transition for perfect simulation of repulsive point processes

Jason Xu, University of Arizona

262. Rational Distance Sets on Conic Sections

Megan Danielle Ly, Loyola Marymount University

Shawn Tsosie, Massachusetts Institute of Technology³