

Max-Planck-Institute für Mathematik
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1. EDUCATION

- **Ph.D.** in Mathematics at Brandeis University, MA, US, 1999–2005,
Thesis Advisor: Daniel Ruberman
- **M.S.** in Mathematics at Pohang University of Science and Technology (POSTECH), Korea (ROK), 1995–1997,
Thesis Advisor: Kyung W. Kwun, Professor Emeritus of Mathematics at Michigan State University
- **B.S.** in Mathematics at Sungkyunkwan University, Korea (ROK), 1990–1994

2. EMPLOYMENT

- **Postdoctoral Fellow**, Department of Mathematics & Statistics, McMaster University, ON, Canada 2005–2007
- **Postdoctoral Researcher**, Department of Mathematics, Louisiana State University, LA, US 2007–2009
- **Visiting Researcher**, Max-Planck Institute for Mathematics, Bonn, Germany 2009–present

3. RESEARCH INTERESTS: Low Dimensional Topology (Surfaces in 4-manifolds)

4. LIST OF PUBLICATIONS

- “*Double point surgery and configurations of surfaces*” with Daniel Ruberman, submitted, arXiv:1001.3750 (2010)
- “*Smooth Surfaces with Non-simply-connected Complements*” with Daniel Ruberman, *Algebraic & Geometric Topology* **8** (2008), 2263–2287
- “*Topological Triviality of Smoothly Knotted Surfaces in 4-Manifolds*”, with Daniel Ruberman, *Transactions of the American Mathematical Society* **360** (2008), 5869–5881
- “*Modifying Surfaces in 4-Manifolds by Twist Spinning*”, *Geometry & Topology* **10** (2006), 27–56
- “*PL Involutions of the Connected Sum of Two Real Projective 3-Spaces*”, M.S. Thesis, POSTECH, Korea (1997)

5. TEACHING EXPERIENCE

- Louisiana State University (8/2007–5/2009)
Courses taught: *Calculus with Application to Technology* (1 semester), *Differential Equations and Linear Algebra* (1 semester), *Analytical Geometry & Calculus I* (1 semester)
- McMaster University (8/2005–5/2007)
Courses taught: *Linear Algebra* (2 semesters), *Mathematical Methods of Business and Social Sciences* (1 semester), *Engineering Calculus* (1 semester)
- Brandeis University (9/2000–8/2004)
Courses taught: *Differential Calculus* (5 semesters), *Integral Calculus* (3 semesters), *Calculus–Summer School* (8/2002–9/2002)
MENTOR for a new teaching assistant at Brandeis University (Spring 2002)

- TEACHING ASSISTANT at POSTECH (3/1995–2/1997)
Led various recitation sections: *Calculus* (2 semesters), *Ordinary Differential Equation* (1 semester), *Algebraic Topology* (1 semester)
- TEACHING CERTIFICATE from the Education Department at Sungkyunkwan University (1994)

6. SELECTED SEMINAR/CONFERENCE TALKS

- MENTORING PROGRAM FOR WOMEN IN MATHEMATICS, Institute for Advanced Study, May, 2003
“*Symplectic Geometry*”
- SPECIAL TALK, Kansas State University, January, 2005
“*Modifying Surfaces in 4-Manifolds by Twist Spinning*”
- GAUGE THEORY SEMINAR, Harvard University, February, 2005
“*Modifying Surfaces in 4-Manifolds by Twist Spinning*”
- GEOMETRY AND TOPOLOGY SEMINAR, Waterloo University, November, 2005
“*Modifying Surfaces in 4-Manifolds by Twist Spinning*”
- GEOMETRY AND TOPOLOGY SEMINAR, McMaster University, November 28, 2005
“*Knotting a Lagrangian Surface in 4-Manifolds*”
- LEHIGH UNIVERSITY GEOMETRY AND TOPOLOGY CONFERENCE on June 8, 2006
“*Modifying Surfaces in 4-Manifolds by Twist Spinning*”
- GEOMETRY AND TOPOLOGY SEMINAR, McMaster University, November 28, 2006
“*Topological Triviality of Smoothly Knotted Surfaces in 4-Manifolds*”
- GEOMETRY AND TOPOLOGY SEMINAR, Waterloo University, December 1, 2006
“*Topological Triviality of Smoothly Knotted Surfaces in 4-Manifolds*”
- COLLOQUIA, Kansas State University, December 7, 2007
“*Topological Triviality of Smoothly Knotted Surfaces in 4-Manifolds*”
- AMS SPECIAL SESSION, RECENT DEVELOPMENTS IN FLOER HOMOLOGY on January 8, 2007
“*Topological Triviality of Smoothly Knotted Surfaces in 4-Manifolds*”
- GAUGE THEORY SEMINAR, Harvard University, March 16, 2007
“*Topological Triviality of Smoothly Knotted Surfaces in 4-Manifolds*”
- INTERACTIONS OF GEOMETRY AND TOPOLOGY IN LOW DIMENSIONS, Banff International Research Station, March 29, 2007, “*Topological Triviality of Smoothly Knotted Surfaces in 4-Manifolds*”
- GEOMETRY AND TOPOLOGY SEMINAR, University of Massachusetts Amherst, April 11, 2007
“*Topological Triviality of Smoothly Knotted Surfaces in 4-Manifolds*”
- MATHEMATICS SEMINAR, Korea Institute For Advanced Study (KIAS), September 3, 2007
“*Topological Triviality of Smoothly Knotted Surfaces in 4-Manifolds*”
- 3RD ANNUAL LOUISIANA-TEXAS TOPOLOGY RETREAT, Rice University, February 9, 2008
“*Smooth Surfaces with Non-simply-connected Complements*”
- AMS SPECIAL SESSION, GAUGE THEORY ON SMOOTH AND SYMPLECTIC TOPOLOGY, March 29, 2008
“*Smooth Surfaces with Non-simply-connected Complements*”
- TRANSFORMATION GROUPS IN TOPOLOGY AND GEOMETRY, University of Massachusetts at Amherst, July 14, 2008, “*Smooth Surfaces with Non-simply-connected Complements*”
- TOPICS IN TOPOLOGY, Max-Planck Institute for Mathematics, October 5, 2009
“*Knotting surfaces in 4-manifolds by twisted rim surgery*”

- GEOMETRY AND TOPOLOGY SEMINAR, University of Massachusetts Amherst, December 2, 2009
“Double point surgery and configurations of surfaces”
- GEOMETRY AND TOPOLOGY SEMINAR, University of Warwick, UK, February 18, 2010
“Double point surgery and configurations of surfaces in 4-manifolds”
- GEOMETRY AND TOPOLOGY SEMINAR, University of Glasgow, UK, February 22, 2010
“Double point surgery and configurations of surfaces in 4-manifolds”

7. HONORS/AWARDS

- RESEARCH FELLOWSHIP at Brandeis since Fall 1999
- RESEARCH ASSISTANT FELLOWSHIP of the Institute of Environmental & Energy Technology at POSTECH, 1997–1998
- TEACHING ASSISTANT FELLOWSHIP at POTTECH (Korea), 1995–1997
- SCHOLARSHIP AWARD for Academic Achievement in Mathematics at Undergraduate School, 1992–1994
- SCHOLARSHIP AWARD for Entrance Exam at Undergraduate School, 1990–1992

8. REFERENCES

- Daniel Ruberman, Brandeis University, ruberman@brandeis.edu, Phone: (781) 736-3074
- Ronald Fintushel, Michigan State University, ronfint@math.msu.edu, Phone: (517) 353-8146
- Ronald J. Stern, University of California, Irvine, rstern@uci.edu, Phone: (949) 824-1823
- Ian Hambleton, McMaster University, hambleton@mcmaster.ca, Phone: (905) 525-9140
- Patrick Gilmer, Louisiana State University, gilmer@math.lsu.edu, Phone: (225) 578-1574
- Susan Parker, Brandeis University, parker@brandeis.edu, Phone: (781) 736-3053, (teaching)
- Oliver Dasbach, Louisiana State University, kasten@math.lsu.edu, Phone: (225) 578-1784, (teaching)