

————— ( JOHN B. ETNYRE ) —————

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Georgia Institute of Technology  
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## RESEARCH INTERESTS

**GEOMETRIC TOPOLOGY:** knot theory, three and four manifold theory

**DIFFERENTIAL GEOMETRY:** symplectic and contact geometry

**DYNAMICAL SYSTEMS:** fluid dynamics, non-holonomic dynamics

## ACADEMIC DEGREES

<b>PH.D MATHEMATICS</b>	<b>December 1996</b>
<i>University of Texas, Austin, Texas</i>	
Thesis: “ <i>Symplectic constructions on 4-manifolds</i> ”; Advisor: Robert E. Gompf	
<b>B.S. MATHEMATICS with honors</b>	<b>May 1989</b>
<i>University of Texas, Austin, Texas</i>	

## PROFESSIONAL POSITIONS HELD

<b>PROFESSOR</b>	<b>2008–present</b>
<i>Georgia Institute of Technology, Atlanta, Georgia</i>	
<b>ASSOCIATE CHAIR FOR GRADUATE STUDIES</b>	<b>2012–2015</b>
<i>Georgia Institute of Technology, Atlanta, Georgia</i>	
<b>ASSOCIATE PROFESSOR</b>	<b>2005–2008</b>
<i>Georgia Institute of Technology, Atlanta, Georgia</i>	
<b>ASSOCIATE PROFESSOR</b>	<b>2005–2006</b>
<i>University of Pennsylvania, Philadelphia Pennsylvania</i>	
<b>ASSISTANT PROFESSOR</b>	<b>2001–2005</b>
<i>University of Pennsylvania, Philadelphia Pennsylvania</i>	
<b>ACTING ASSISTANT PROFESSOR/POSTDOC.</b>	<b>1997–2001</b>
<i>Stanford University, Stanford, California</i>	
<b>INSTRUCTOR</b>	<b>Spring 1997</b>
<i>University of Texas, Austin, Texas</i>	
<b>TEACHING ASSISTANT AND ASSISTANT INSTRUCTOR</b>	<b>1989-1996</b>
<i>University of Texas, Austin, Texas</i>	

## VISITING POSITIONS

<b>MEMBER</b> <i>Institute for Advanced Study</i>	Winter 2016
<b>MEMBER</b> <i>Mittag-Leffler Institute</i>	October 2015
<b>MEMBER</b> <i>Simons Center for Geometry and Physics</i>	May 12 - June 8 2013
<b>MEMBER</b> <i>Kavli Institute for Theoretical Physics, Santa Barbara, California</i>	July 2012
<b>VISITOR</b> <i>University of Texas, Austin, Texas</i>	Spring 2012
<b>MEMBER</b> <i>Mathematical Sciences Research Institute, Berkeley, California</i>	Fall 2009– Spring 2010
<b>VISITOR</b> <i>University of California, Santa Barbara, California</i>	Winter 2005
<b>RESEARCH ASSISTANT</b> <i>Max Plank Institute, Bonn, Germany</i>	Spring 1992

## AWARDS AND HONORS

<b>COLLEGE OF SCIENCES FACULTY MENTOR AWARD</b> <i>Georgia Institute of Technology</i>	2017
<b>41ST ANNUAL SPRING LECTURE SERIES</b> <i>University of Arkansas, Fayetteville, Arkansas</i>	April 2016
<b>SIMONS FELLOWS IN MATHEMATICS</b> <i>Simons Foundation</i>	2015-2016
<b>FELLOW OF THE AMERICAN MATHEMATICAL SOCIETY</b> <i>American Mathematical Society</i>	Fall 2012
<b>30TH WILLIAM J. SPENCER LECTURE</b> <i>Kansas State University, Manhattan, Kansas</i>	April 2008
<b>INVITED ONE HOUR AMS ADDRESS</b> <i>Courant Institute, New York, NY</i>	April 2003
<b>NATIONAL SCIENCE FOUNDATION POSTDOC. FELLOWSHIP</b>	1997–2001
<b>REGENTS ENDOWED GRADUATE FELLOWSHIP</b>	August 1990
<b>PHI BETA KAPPA</b>	April 1989

## GRANTS

<b>NATIONAL SCIENCE FOUNDATION GRANT</b> Title: “RTG: Research Training in Geometry and Topology” (PI with Co-PI with Belegradek, Hom, Margalit, Wickelgren)	2018–2023
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<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>2018</b>
Title: <i>“The Topology and Geometry of Low-dimensional Manifolds”</i>	
<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>2016–2019</b>
Title: <i>“Submanifolds and metrics in contact geometry”</i>	
<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>2015–2018</b>
Title: <i>“Tech Topology Conference III”</i> (Co-PI with Margalit)	
<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>2014</b>
Title: <i>“Contact Topology in Dimension Three and Higher”</i>	
<b>AMERICAN INSTITUTE OF MATHEMATICS SQUARE GRANT</b>	<b>2014–2015</b>
Title: <i>“Symplectic and Contact Geometry and Mapping Class Groups”</i>	
<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>2013–2017</b>
Title: <i>“EFRI-ODISSEI: Novel Perpetual Reconfigurable &amp; Multi-Band”</i> (co-PI with Tentzeris and Georgakopoulos)	
<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>2013–2016</b>
Title: <i>“Contact Geometry in dimensions high and low”</i>	
<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>2012–2015</b>
Title: <i>“Tech Topology Conference II”</i> (PI with Co-PI Margalit)	
<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>Fall 2011</b>
Title: <i>“Tech Topology Conference”</i> (Co-PI with Margalit)	
<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>2008–2013</b>
Title: <i>“Contact Geometry, Contact Homology and Open Book Decompositions”</i>	
<b>NATIONAL SCIENCE FOUNDATION CAREER GRANT</b>	<b>2003–2008</b>
Title: <i>“Knot Theory and Dynamics in Contact Geometry”</i>	
<b>NSF FOCUSED RESEARCH GROUP GRANT</b>	<b>2003–2006</b>
Title: <i>“Holomorphic Curves and Low Dimensional Topology”</i> (Co-PI with Eliashberg, Hsiang, Hutchings, Mrowka, Ozsvath, Stern, Szabo)	
<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>2002–2005</b>
Title: <i>“Knot Theory and Dynamics in Contact Geometry”</i> (replaced with CAREER grant in 2003)	
<b>NATIONAL SCIENCE FOUNDATION GRANT</b>	<b>Fall 2000</b>
<i>for contact geometry workshop</i> (Co-PI with Eliashberg and Cieliebak)	
<b>AMERICAN INSTITUTE ON MATHEMATICS GRANT</b>	<b>Fall 2000</b>
<i>for contact geometry workshop</i> (Co-PI with Eliashberg and Cieliebak)	

## PAPERS

### Publications

1. **TRANSVERSE UNIVERSAL LINKS**  
Joint work with Roger Casals, To Appear in *Proc. Sympos. Pure Math*
2. **EMBEDDING ALL CONTACT 3–MANIFOLDS IN A FIXED CONTACT 5–MANIFOLD**  
Joint work with Yanki Lekili, To Appear in *Journal of the LMS*
3. **LEGENDRIAN SATELLITES**  
Joint work with Vera Vértési, To Appear in *IMRN*

4. **BRAIDED EMBEDDINGS OF CONTACT 3-MANIFOLDS IN THE STANDARD CONTACT 5-SPHERE**  
Joint work with Ryo Furukawa, *Journal of Topology* **10** (2017), 412–446
5. **SUTURED FLOER HOMOLOGY AND INVARIANTS OF LEGENDRIAN AND TRANSVERSE KNOTS**  
Joint work with David Shea Vela-Vick and Rumén Zarev, *Geometry and Topology* **21** (2017), 1469–1582
6. **CORRIGENDUM TO: “ON GENERALIZING LUTZ TWISTS”**  
Joint work with Dishant M Pancholi, *J. Lond. Math. Soc. (2)* **94** (2016), 662–665
7. **QUANTITATIVE DARBOUX THEOREMS IN CONTACT GEOMETRY**  
Joint work with Rafal Komendarczyk and Patrick Massot, *Trans. Amer. Math. Soc* **368** (2016), 7845–7881
8. **MONOIDS IN THE MAPPING CLASS GROUP**  
Joint work with Jeremy Van Horn-Morris, *Geometry and Topology Monographs* **19** (2015), 319–365
9. **THE ARC COMPLEX AND CONTACT GEOMETRY, NON-DESTABILIZABLE PLANAR OPEN BOOK DECOMPOSITIONS OF THE TIGHT CONTACT 3-SPHERE**  
Joint work with Youlin Li, *IMRN* **2015** (2015), 1401–1420
10. **ADMISSIBLE TRANSVERSE SURGERY DOES NOT PRESERVE TIGHTNESS**  
Joint work with John A Baldwin, *Math. Annalen* **357** (2013), 441–468
11. **KNOT CONTACT HOMOLOGY**  
Joint work with Tobias Ekholm, Lenhard Ng and Michael G. Sullivan, *Geometry and Topology* **17** (2013), 975–1112
12. **ON KNOTS IN OVERTWISTED CONTACT STRUCTURES**  
*Journal of Quantum Topology* **4** (2013), 229–264
13. **FILTRATIONS ON THE KNOT CONTACT HOMOLOGY OF TRANSVERSE KNOTS**  
Joint work with Tobias Ekholm, Lenhard Ng and Michael G. Sullivan, *Math. Annalen* **355** (2013), 1561–1591
14. **LEGENDRIAN AND TRANSVERSE TWIST KNOTS**  
Joint work with Lenhard Ng and Vera Vértési, *J. European Math. Soc* **15** (2013), 969–995
15. **LEGENDRIAN AND TRANSVERSE CABLES OF POSITIVE TORUS KNOTS**  
Joint work with Douglas J. LaFountain and Bulent Tosun, *Geometry and Topology* **16** (2012), 1639–1689
16. **TIGHTNESS IN CONTACT METRIC 3-MANIFOLDS**  
Joint work with Rafal Komendarczyk and Patrick Massot, *Invent. Math* **188** (2012), 621–657
17. **CABLING, CONTACT STRUCTURES AND MAPPING CLASS MONOIDS**  
Joint work with Kenneth L Baker and Jeremy Van Horn-Morris, *J. Differential Geom* **90** (2012), 1–80
18. **RATIONAL LINKING AND CONTACT GEOMETRY**  
Joint work with Kenneth L Baker, *Progr. Math* **296** (2012), 19–37
19. **FIBERED TRANSVERSE KNOTS AND THE BENNEQUIN BOUND**  
Joint work with Jeremy Van Horn-Morris, *IMRN* **2011** (2011), 1483–1509
20. **PRODUCT STRUCTURES FOR LEGENDRIAN CONTACT HOMOLOGY**  
Joint work with Gokhan Civan, Paul Koprowski, Joshua Sabloff and Alden Walker, *Math. Proc. Cambridge Philos. Soc* **150** (2011), 291–311
21. **ON GENERALIZED LUTZ TWISTS**  
Joint work with Dishant M Pancholi, *Proc. of the LMS* **84** (2011), 670–688

22. **TORSION AND OPEN BOOK DECOMPOSITIONS**  
Joint work with David Shea Vela-Vick, *IMRN* **2010** (2010), 4385–4398
23. **A NOTE ON THE SUPPORT NORM OF A CONTACT STRUCTURE**  
Joint work with John A Baldwin, *Proc. Sympos. Pure Math* **82** (2009), 79–88
24. **A DUALITY EXACT SEQUENCE FOR LEGENDRIAN CONTACT HOMOLOGY**  
Joint work with Tobias Ekholm and Joshua Sabloff, *Duke Math. J* **150** (2009), 1–75
25. **LECTURES ON CONTACT GEOMETRY IN LOW-DIMENSIONAL TOPOLOGY**  
Low dimensional topology (IAS/Park City Math. Ser., 15), (2009), 229–264
26. **A NOTE ON STEIN FILLINGS OF CONTACT MANIFOLDS**  
Joint work with Anar Akhmedov, Thomas E. Mark and Ivan Smith, *MRL* **15** (2008), 1127–1132
27. **ON CONTACT SURGERY**  
*Proc. Amer. Math. Soc* **136** (2008), 3355–3362
28. **INVARIANTS OF CONTACT STRUCTURES FROM OPEN BOOKS**  
Joint work with Burak Ozbagci, *Trans. Amer. Math. Soc* **260** (2008), 3133–3151
29. **CONTACT STRUCTURES ON 3-MANIFOLDS ARE DEFORMATIONS OF FOLIATIONS**  
*MRL* **14** (2007), 775–779
30. **LEGENDRIAN CONTACT HOMOLOGY IN  $P \times \mathbb{R}$**   
Joint work with Tobias Ekholm and Michael G. Sullivan, *Trans. Amer. Math. Soc* **359** (2007), 3301–3335
31. **OPEN BOOKS AND PLUMBINGS**  
Joint work with Burak Ozbagci, *IMRN* **2006** (2006), 1–17
32. **REALIZING 4-MANIFOLDS AS ACHIRAL LEFSCHETZ FIBRATIONS**  
Joint work with Terry Fuller, *IMRN* **2006** (2006), 1–21
33. **CONTACT MANIFOLDS**  
Encyclopedia of Mathematical Physics, eds. J.-P. Francoise, G.L. Naber and S.T. Tsou, Oxford: Elsevier, v. 1 (2006), 631–636
34. **LECTURES ON OPEN BOOK DECOMPOSITIONS AND CONTACT STRUCTURES**  
Clay Math. Proc. 5 (the proceedings of the “Floer Homology, Gauge Theory, and Low Dimensional Topology Workshop”), (2006), 103–141
35. **INVARIANTS OF KNOTS, EMBEDDINGS AND IMMERSIONS VIA CONTACT GEOMETRY**  
Joint work with Tobias Ekholm, *Fields Inst. Commun* **47** (2005), 77–96
36. **CABLING AND TRANSVERSE SIMPLICITY**  
Joint work with Ko Honda, *Annals of Math* **162** (2005), 1305–1333
37. **GENERIC HYDRODYNAMIC INSTABILITY OF CURL EIGENFIELDS**  
Joint work with Robert Ghrist, *SIAM J. Appl. Dyn. Syst* **4** (2005), no. 2, 377–390
38. **ORIENTATIONS IN LEGENDRIAN CONTACT HOMOLOGY AND EXACT LAGRANGIAN IMMERSIONS**  
Joint work with Tobias Ekholm and Michael G. Sullivan, *IJM* **16** (2005), no. 5, 453–532
39. **LEGENDRIAN AND TRANSVERSAL KNOTS**  
in the Handbook of Knot Theory (Elsevier B. V., Amsterdam), (2005), 105–185
40. **THE CONTACT HOMOLOGY OF LEGENDRIAN SUBMANIFOLDS IN  $\mathbb{R}^{2n+1}$**   
Joint work with Tobias Ekholm and Michael G. Sullivan, *J. Differential Geom* **71** (2005), no. 2, 177–305
41. **NON-ISOTOPIC LEGENDRIAN SUBMANIFOLDS IN  $\mathbb{R}^{2n+1}$**   
Joint work with Tobias Ekholm and Michael G. Sullivan, *J. Differential Geom* **71** (2005), no. 1, 85–128

42. **PLANAR OPEN BOOK DECOMPOSITIONS AND CONTACT STRUCTURES**  
*IMRN* **2004** (2004), no. 79, 4255-4267
43. **ON SYMPLECTIC FILLINGS**  
*Algebr. Geom. Topol* **4** (2004), 73-80
44. **ON CONNECTED SUMS AND LEGENDRIAN KNOTS**  
Joint work with Ko Honda, *Adv. Math* **179** (2003), 59-74
45. **INTRODUCTORY LECTURES ON CONTACT GEOMETRY**  
*Proc. Sympos. Pure Math* **71** (2003), 81-107
46. **PROBLEMS IN LOW DIMENSIONAL CONTACT TOPOLOGY**  
Joint work with Lenhard Ng, *Proc. Sympos. Pure Math* **71** (2003), 337-357
47. **TIGHT CONTACT STRUCTURES AND ANOSOV FLOWS**  
Joint work with Robert Ghrist, *Topol. and its Appl* **124** (2002), 211-219
48. **INVARIANTS OF LEGENDRIAN KNOTS AND COHERENT ORIENTATIONS**  
Joint work with Lenhard Ng and Joshua Sabloff, *J. Sympl. Geom* **1** (2002), no. 2, 321-368
49. **CONTACT TOPOLOGY AND HYDRODYNAMICS II: SOLID TORI**  
Joint work with Robert Ghrist, *Ergod. Th. & Dynam. Sys* **22** (2002), 819-833
50. **TIGHT CONTACT STRUCTURES WITH NO SYMPLECTIC FILLINGS**  
Joint work with Ko Honda, *Invent. Math* **148** (2002), no. 3, 609-626
51. **ON SYMPLECTIC COBORDISMS**  
Joint work with Ko Honda, *Math. Annalen* **323** (2002), no. 1, 31-39
52. **KNOTS AND CONTACT GEOMETRY I: TORUS KNOTS AND THE FIGURE EIGHT KNOT**  
Joint work with Ko Honda, *J. Sympl. Geom* **1** (2001), no. 1, 63-120
53. **AN INDEX FOR CLOSED ORBITS IN BELTRAMI FIELDS**  
Joint work with Robert Ghrist, *Phys. D* **159** (2001), no. 3-4, 180-189
54. **ERRATUM TO: TIGHT CONTACT STRUCTURES ON LENS SPACES**  
*Commun. Contemp. Math* **3** (2001), no. 4, 649-652
55. **ON THE NONEXISTENCE OF TIGHT CONTACT STRUCTURES**  
Joint work with Ko Honda, *Ann. of Math. (2)* **153** (2001), no. 3, 749-766
56. **TIGHT CONTACT STRUCTURES ON LENS SPACES**  
*Commun. in Contemp. Math* **2** (2000), no. 4, 559-577
57. **CONTACT TOPOLOGY AND HYDRODYNAMICS III: KNOTTED ORBITS**  
Joint work with Robert Ghrist, *Trans. Amer. Math. Soc* **352** (2000), 5781-5794
58. **CONTACT TOPOLOGY AND HYDRODYNAMICS I: BELTRAMI FIELDS AND THE SEIFERT CONJECTURE**  
Joint work with Robert Ghrist, *Nonlinearity* **13** (2000), 441-458
59. **STRATIFIED INTEGRALS AND UNKNOTS IN INVICID FLOWS**  
Joint work with Robert Ghrist, *Contemp. Math* **246** (1999), 99-111
60. **GRADIENT FLOWS WITHIN PLANE FIELDS**  
Joint work with Robert Ghrist, *Comm. Math. Helvetici* **74** (1999), 507-529
61. **TIGHT CONTACT STRUCTURES VIA DYNAMICS**  
Joint work with Robert Ghrist, *Proceedings of the AMS* **127** (1999), 3697-3706

62. **TRANSVERSAL TORUS KNOTS**  
*Geometry and Topology* **3** (1999), 253-268
63. **SYMPLECTIC CONVEXITY IN LOW-DIMENSIONAL TOPOLOGY**  
*Topol. and its Appl* **88** (1998), 3-25
64. **SMOOTH STRUCTURES ON COLLARABLE ENDS OF 4-MANIFOLDS**  
Joint work with Zarko Bizaka, *Topology* **37** (1998), 461-467
65. **SYMPLECTIC CONSTRUCTIONS ON 4-MANIFOLDS**  
*Dissertation, University of Texas* (December 1996), 1-92

### PREPRINTS

1. **LEGENDRIAN CONTACT HOMOLOGY IN  $\mathbb{R}^3$**   
Joint work with Lenhard Ng, Preprint 2018
2. **NON-SIMPLICITY OF ISOCONTACT EMBEDDINGS IN ALL HIGHER DIMENSIONS**  
Joint work with Roger Casals, Preprint 2018
3. **CONTACT SURGERY AND SYMPLECTIC CAPS**  
Joint work with James Conway, Preprint 2018
4. **SYMPLECTIC FILLINGS, CONTACT SURGERIES, AND LAGRANGIAN DISKS**  
Joint work with James Conway and Bulent Tosun, Preprint 2017
5. **CONTACT STRUCTURES ON 5-MANIFOLDS**  
Preprint 2012

### BOOKS

1. **INTERACTIONS BETWEEN LOW-DIMENSIONAL TOPOLOGY AND MAPPING CLASS GROUPS**  
R. Inanc Baykur, John Etnyre and Ursula Hamenstädt (editors). G&T Monographs Vol. 19 (2015).  
Proceedings of the conference with the same title, held at the Max Planck Institute in Bonn, Germany, in July 2013.

### OTHER PUBLICATIONS

1. **BULLETIN OF THE AMS REVIEW: "SURGERY ON CONTACT 3-MANIFOLDS AND STEIN SURFACES"** BY BURAK OZBAGCI AND ANDRÁS I. STIPSICZ  
Bull. Amer. Math. Soc. **43** (2006) 429-434

## PROFESSIONAL SERVICE

### Administrative

#### PRINCIPLE EDITOR

Algebraic and Geometric Topology 2007–Present

#### EXTERNAL REVIEW COMMITTEE

Department of Mathematics, University at Buffalo 2016

#### BOARD OF DIRECTORS

Mathematical Sciences Publishers 2007–2011

#### EDITOR

Algebraic and Geometric Topology 2000–2007

#### AMS COMMITTEES

Chair of Southeastern Section Program Committee 2010-2011

Southeastern Section Program Committee 2009–2010

#### NSF COMMITTEE

Committee of Visitors for the DMS 2010

#### PANELIST

Simons Foundation 2012

National Science Foundation Grant Panel 2004, 06, 07, 09, 14, 16

### Organizational

#### LONG TERM WORKSHOPS (co-organizer)

- *MSRI Contact and Symplectic Geometry and Topology*  
Mathematical Sciences Research Institute, Berkeley CA 2009-2010
- *MSRI Summer Graduate Workshop*  
Mathematical Sciences Research Institute, Berkeley CA August 2-14, 2009
- *IAS Holomorphic Curves Workshop*  
Institute for Advanced Study, Princeton NJ May-June 2005
- *Low Dimensional Contact Geometry*  
Stanford University and the American Mathematical Institute Fall 2000

#### CONFERENCES (co-organizer)

- *Tech Topology Conference*  
Georgia Tech, Atlanta, GA December 7-9, 2018
- *The topology and geometry of low dimensional manifolds*  
University of Texas, Austin, TX July 12-15, 2018
- *Tech Topology Conference*  
Georgia Tech, Atlanta, GA December 8-10, 2017
- *Tech Topology Conference*  
Georgia Tech, Atlanta, GA December 9-11, 2016
- *Interactions of Gauge Theory with Contact and Symplectic Topology in Dimensions 3 and 4*  
Banff International Research Station, Banff Canada March 20-25, 2016



- *Workshop on Flows, Foliations and Contact Structures*  
Institute for Advanced Study, Princeton, NJ **December 7-11, 2015**
- *Tech Topology Conference*  
Georgia Tech, Atlanta, GA **December 4-6, 2015**
- *Tech Topology Conference*  
Georgia Tech, Atlanta, GA **December 5-7, 2014**
- *Workshop on Contact Geometry in Dimension Three and Higher*  
University College London, London UK **July 28 to August 1, 2014**
- *Tech Topology Conference*  
Georgia Tech, Atlanta, GA **December 6-8, 2013**
- *Interactions between low dimensional topology and mapping class groups*  
Max Planck Institute for Mathematics, Bonn Germany **July 1-5, 2013**
- *Interactions of gauge theory with contact and symplectic topology in dimensions 3 and 4*  
Banff International Research Station, Banff Canada **March 24-29, 2013**
- *Tech Topology Conference*  
Georgia Tech, Atlanta, GA **December 7-9, 2012**
- *AMS Sectional Meeting: Interactions of Geometry and Topology in Low Dimensions*  
New Orleans, LA **October 13-14, 2012**
- *Contact topology in higher dimensions*  
American Institute of Mathematics, Palo Alto, CA **May 21-25, 2012**
- *Tech Topology Conference*  
Georgia Tech, Atlanta, GA **December 9-11, 2011**
- *AMS Sectional Meeting: Low-Dimensional Topology and Geometry*  
Winston-Salem NC **September 24-25, 2011**
- *Interactions between contact symplectic topology and gauge theory in dimensions 3 and 4*  
Banff International Research Station, Banff Canada **March 20-25, 2011**
- *AMS Sectional Meeting: Low Dimensional Topology and Contact and Symplectic Geometry*  
Statesboro, GA **March 12-13, 2011**
- *Symplectic and Contact Topology and Dynamics: Puzzles and Horizons*  
Mathematical Sciences Research Institute, Berkeley, CA **March 22-26, 2010**
- *Introductory Workshop: Symplectic and Contact Geometry*  
Mathematical Sciences Research Institute, Berkeley, CA **August 17-21, 2009**
- *AMS Sectional Meeting: Low-dimensional topology and geometry*  
Raleigh, NC **April 2009**
- *Interactions of Geometry and Topology in dimensions 3 and 4*  
Banff International Research Station, Banff Canada **March 2009**
- *Holomorphic curves: algebraic structures and geometric application*  
Stanford University, Stanford CA **August 2008**
- *Interactions of geometry and topology in low dimensions*  
Banff International Research Station, Banff Canada **March 2007**
- *21st Annual Geometry Festival*  
University of Pennsylvania, Philadelphia PA **March 2006**
- *Holomorphic Curves*  
Institute for Advanced Study, Princeton NJ **June 2005**
- *Holomorphic Curves in Contact Geometry*  
American Institute of Mathematics, Palo Alto CA **August 2003**
- *Frontiers of PDEs and Dynamical Systems*

Rutgers University, New Brunswick NJ	May 2003
• <i>AMS Sectional Meeting Contact and Symplectic Geometry</i> Courant Institute, New York NY	April 2003
• <i>Symplectic and Contact Geometry</i> Stanford University, Stanford CA	May 2001
• <i>Low Dimensional Contact Geometry</i> Stanford University, Stanford CA	May 2000
<b>SEMINARS</b> (organizer) _____	
• Mini-course series Georgia Tech, Atlanta GA	Spring 2009
• Contact homology (mini-course) Georgia Tech, Atlanta GA	Fall 2008
• 3-manifold Topology (mini-course) Georgia Tech, Atlanta GA	Fall 2008
• Convex Surfaces in Contact Geometry (mini-course) Georgia Tech, Atlanta GA	Spring 2008
• Analysis in Topology and Geometry (mini-course) Georgia Tech, Atlanta GA	Spring 2008
• Morse/Floer Theory (mini-course) Georgia Tech, Atlanta GA	Spring 2007
• Symplectic Geometry (mini-course) Georgia Tech, Atlanta GA	Fall 2006
• Kirby Calculus and 3-manifolds (mini-course) University of Pennsylvania, Philadelphia PA	Summer 2005
• Heegaard-Floer Seminar (mini-course) University of Pennsylvania, Philadelphia PA	Fall 2004
• Graduate Student Geometry Seminar University of Pennsylvania, Philadelphia PA	2001–2003
• Contact Geometry Seminar Stanford University, Stanford CA	Fall 2000
• Sheaf Theory Seminar (mini-course) University of Texas, Austin TX	Summer 1994
<b>SEMINARS</b> (co-organizer) _____	
• Working Geometry-Topology Seminar Georgia Tech, Atlanta GA	2006-Present
• Topology-Geometry Seminar Georgia Tech, Atlanta GA	2005-Present
• Joint Emory-UGA-Ga Tech Topology Seminar Georgia Tech, Atlanta GA	2005-2011
• Symplectic and Contact Geometry and Topology Research Seminar Mathematical Sciences Research Institute, Berkeley CA	Spring 2010
• Quantitative Symplectic Topology Mathematical Sciences Research Institute, Berkeley CA	Spring 2010
• Algebraic Geometry and Topology Learning Seminar Georgia Tech, Atlanta GA	Fall 2009

- Colloquium  
Georgia Tech, Atlanta GA **2005-2006**
- Geometry and Topology Seminar  
University of Pennsylvania, Philadelphia PA **2003-2004**
- Symplectic Field Theory Seminar  
Stanford University, Stanford CA **Fall 2000**
- Low-dimensional Topology and Geometry Seminar  
Stanford University, Stanford CA **1999-2000**
- Foliations, Fibrations and Slitherings Seminar  
Stanford University, Stanford CA **1998-99**
- Seminar on Some Results of Taubes and Kotschick  
University of Texas, Austin TX **Summer 1995**
- Contact Geometry Seminar  
University of Texas, Austin TX **Fall 1994**

### Reviewer and Referee

#### REVIEWER \_\_\_\_\_

- *Math Reviews* (about 90 to date) **1997-2008**
- *Bulletin of the AMS* **2006**

#### REVIEWER OF GRANT PROPOSALS FOR \_\_\_\_\_

• National Science Foundation • Simons Foundation • Central European University • Czech Science Foundation • Deutscher Akademischer Austauschdienst (German Academic Exchange Service) • Engineering and Physical Sciences Research Council (UK grant agency) • European Union's European Research Council • L'Agence Nationale de la Recherche (French Research Agency) • Israel Science Foundation • National Research, Development and Innovation Office of Hungary • Netherlands Organization for Scientific Research • Portuguese Foundation for Science and Technology (FCT) • Swiss National Science Foundation • Scientific and Technological Research Council of Turkey • National Research Foundation South Africa • National Science Foundation, Georgia

#### REVIEWER OF BOOK PROPOSALS FOR \_\_\_\_\_

• Birkhäuser • Cambridge University Press • CRC Press • Taylor & Francis Group • Springer-Verlag

#### REFEREE \_\_\_\_\_

• Acta Mathematica Sinica • Advances in Mathematics • Algebraic and Geometric Topology • American Journal of Mathematics • Analysis and Mathematical Physics • Annals of Mathematics • Annales de l'Institut Fourier • Annales Polonici Mathematici • Archiv der Mathematik • Arkiv för Matematik • Arnold Mathematical Journal • Asian Journal of Mathematics • Bulletin of the London Mathematical Society • Commentarii Mathematici Helvici • Communications in Analysis and Geometry • Communications in Contemporary Mathematics • Compositio Mathematica • Constructive Approximation • Differential Geometry and its Application • Duke Mathematics Journal • Ergodic Theory and Dynamical Systems • Expositiones Mathematicae • Forum of Mathematics, Sigma • Fundamenta Mathematicae • Geometriae Dedicata • Geometric and Functional Analysis • Geometry and Topology • Houston Journal of Mathematics • International Journal of Mathematics and Mathematical Sciences • International Journal of Mathematics • International Mathematics

Research Notes • Inventiones mathematicae • Involve, a Journal of Mathematics • Journal für die reine und angewandte Mathematik • Journal of Differential Equations • Journal of Differential Geometry • Journal of Geometry • Journal of Geometry and Physics • Journal of Knot Theory and its Ramifications • Journal of Mathematical Physics • Journal of Symplectic Geometry • Journal of the American Mathematical Society • Journal of the London Mathematical Society • Journal of the Ramanujan Mathematical Society • Journal of Topology and Analysis • Journal of Mathematical Sciences (the University of Tokyo) • Journal of Topology • Journal of Topology and its Applications • Mathematica Japonica • Mathematical Proceedings of the Cambridge Philosophical Society • Mathematical Research Letters • Mathematische Annalen • Michigan Journal of Mathematics • Nonlinearity • Pacific Journal of Mathematics • Proceedings A of the Royal Society • Proceedings of the American Mathematical Society • Proceedings of the London Mathematical Society • Proceedings – Mathematical Sciences (Indian Academy of Sciences) • Quantum Topology • Rocky Mountain Journal of Mathematics • Topology • Topology and its application • Transactions of the American Mathematical Society • various conference proceedings

### Departmental Committees

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#### GA TECH

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Salary and Awards Committee (Chair 2017-18)	2017-2019
External Awards Committee (College of Sciences)	2016-2018
Hiring Committee	2016-2017
Space Task Force	2016-2017
Comprehensive Exam Committee: Topology	2014-2018
Graduate Committee (ex officio)	2012-2015
Chair 5 Year Review/Reappointment Committee	2014
Faculty Advisory Committee	2011-2013
Salary and Awards Committee	2010-2012
Senior Promotion and Tenure Committee	2010-2011
Strategic Hiring Plan Committee (Chair)	2009-2010
Teaching Load Committee	2009
Hiring Committee (Chair 2007-09)	2007-09
Comprehensive Exam Committee: Algebra	2006-2007, 2009-2010
Junior Promotion and Tenure (Chair 2008-10)	2006-10
Computer Committee	2006-08
Research Subcommittee for promotion of Mohammad Ghomi	2006
Colloquium Committee	2005-06
Research Subcommittee for reappointment of Igor Belagradek	2005

#### U PENN

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TA Training	2001-05
Math Major Advising	2001-05
Masters Advising	2003-05
Graduate Admissions	2002-03
Graduate Advising	2001-02

## STUDENT SUPERVISION

### PHD STUDENTS

<b>ALAN DIAZ</b> (Ga Tech)	<b>Current</b>
<b>SURENA HOZOORI</b> (Ga Tech)	<b>Current</b>
<b>SUDIPTA KOLAY</b> (Ga Tech)	<b>Current</b>
<b>ANDREW MCCULLOUGH</b> (Ga Tech)	<b>Current</b>
<b>ANUBHAV MUKHERJEE</b> (Ga Tech)	<b>Current</b>
<b>HYUNKI MIN</b> (Ga Tech)	<b>Current</b>
<b>AGNIVA ROY</b> (Ga Tech)	<b>Current</b>
<b>JAMES CONWAY</b> (Ga Tech)	<b>Summer 2016</b>
Thesis: Transverse surgery on knots in contact three-manifolds	
Placement: Postdoctoral fellow, University of California, Berkeley, Berkeley, CA	
<b>AMEY KALOTI</b> (Ga Tech)	<b>Summer 2014</b>
Thesis: Stein fillings of contact structures supported by planar open books	
Placement: Instructor, University of Iowa, Iowa City, IA	
<b>MEREDITH CASEY</b> (Ga Tech)	<b>Fall 2013</b>
Thesis: Branched Covers of Contact Manifolds	
Placement: Instructor, University of Colorado, Colorado Springs, CO	
<b>BULENT TOSUN</b> (Ga Tech)	<b>Summer 2012</b>
Thesis: Legendrian and transverse knots and their invariants	
Placement: CIRGET, Montreal, Canada and Postdoc, Max Plank Institute, Bonn, Germany	
<b>DAVID SHEA VICK</b> (U. Penn)	<b>Spring 2009</b>
Thesis: Applications of Ozsváth-Szabó invariants to contact geometry	
Placement: NSF Postdoctoral fellowship, Columbia University, New York, NY	
<b>SINEM ONARAN (CELIK)</b> (METU, co-advisor Korkmaz)	<b>Spring 2009</b>
Thesis: Invariants of Legendrian knots from open book decompositions	
Placement: Leibniz Fellowship at Oberwolfach, Germany	
<b>ELENA PAVELESCU (BOGDAN)</b> (U. Penn)	<b>Spring 2008</b>
Thesis: Braids and open book decomposition	
Placement: Postdoctoral fellow, Rice University, Houston, TX	
<b>STEPHAN SCHÖNENBERGER</b> (U. Penn)	<b>Summer 2005</b>
Thesis: Planar open books and symplectic fillings	
Placement: Winterthur Insurance, Zurich, Switzerland	
<b>JAMES TRIPP</b> (U. Penn)	<b>Spring 2005</b>
Thesis: Contact structures on open 3-manifolds	
Placement: NSA	

### MASTERS STUDENTS

<b>GÖKHAN ELMAS</b> (Ga Tech)	<b>Spring 2016</b>
<b>AMEY KALOTI</b> (Ga Tech)	<b>Spring 2008</b>

### PHD DEFENSE COMMITTEES

• Shane Scott PhD, (Ga Tech) Summer 2018 • Alberto Cavallo (PhD, Central European University) May 2018 • James Conway (PhD, Ga Tech) Summer 2016 • Julia Bennett (PhD, University of Texas) September 2015 • Thomas Guyard (PhD Rapporteurs, Université de Nantes) September 2015 • Jing

Hu (PhD, Ga Tech) May 2015 • Laura Starkston (PhD, University of Texas) March 2015 • Amey Kaloti (PhD, Ga Tech) Summer 2014 • Meredith Casey (PhD, Ga Tech) Fall 2013 • Farbod Shokrieh (PhD, Ga Tech) June 2013 • Bulent Tosun (PhD, Ga Tech) Summer 2012 • Anh Tran (PhD, Ga Tech) April 2012 • Jonathan Williams (PhD, University of Texas) April 2010 • David Shea Vela-Vick (PhD, U Penn) Spring 2009 • Senim Onaran (PhD, METU) Spring 2009 • Baptiste Chantraine (PhD, Université du Québec à Montréal) November 2009 • Elena Pavelescu (PhD, U Penn) Spring 2008 • Michael Kettner (PhD, Ga Tech) August 2007 • Jeremy Van Horn-Morris (PhD, University of Texas) July 2007 • Rafal Komendarczyk (PhD, Ga Tech) November 2005 • Stephan Schönenberger (PhD, U Penn) Summer 2005 • James Trip (PhD, U Penn) Spring 2005 • Yongzhong Xu (PhD, Rutgers) April 2005 • Madeeha Khalid (PhD, U Penn) May 2003

### ORAL EXAM COMMITTEE (Ga Tech)

• Surena Hozoori (2018) • Hyunki Min (2018) • Chase Michael Leibenguth (2017, Aerospace) • Andrew McCullough (2016) • Bharath Hebbe Madhusudhana (2016, Physics) • Shane Scott (2015) • Jing Hu (2013) • Ye Luo (2013) • Alan Diaz (2013) • Jamie Conway (2013) • Bulent Tosun (2012) • Hyunshik Shin (2011) • Farbod Shokrieh (2011) • Rebecca Winarski (2011) • Thao Vuong (2011) • Meredith Casey (2010) • Amey Kolati (2010) • Anh Tran (2009) • James Krysiak (2009) • Michael Burkhart (2006) • Ian Palmer (2006)

### ORAL EXAM COMMITTEE (U. Penn)

• David Shea Vick (2006) • Andrei Pavelescu (2005) • Armin Holschbach (2005) • Michael McDuffee (2005) • Elena Bogdan (2005) • David Fithian (2005) • Corey Hoelscher (2004) • Stephan Schönenberger (2003) • James Tripp (2003)

### GRADUATE TEACHING MENTOR (Ga Tech)

• Ashley Bentley (Spring 2013) • Jing Hu (Spring 2013) • Donald Sampson (Spring 2013) • Rebecca Winarski (Spring 2013) • Anh Tran (Summer 2011) • Anh Tran (Summer 2010) • Ian Palmer (Spring 2009)

### RESEARCH EXPERIENCES FOR UNDERGRADUATE PROJECTS

**BRANDON COSGROVE AND ANDREW SACK** (Ga Tech) **Summer 2018**

Project: Knot colorings and braided embeddings

**GOKHAN CIVAN** (Ga Tech) **Summer 2006**

Project: Invariants derived from the contact homology differential graded algebra

## TEACHING

### AWARDS

Georgia Institute of Technology, Center for the Enhancement of Teaching and Learning  
 "Thank a teacher" certificate **Fall 2007, Spring 2008, Spring 2009,  
 Fall 2010, Spring 2011**

University of Pennsylvania, Department of Mathematics  
 Good Teaching Award **Spring 2004, Fall 2004**

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**GRADUATE CLASSES**


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- 2018:** • *Differential Topology* • *Algebraic Topology* • *Reading Course:* Surgery and handlebodies — Surena Hozoori, Hyunki Min, Anubhav Mukherjee • *Reading Course:* Convex surface theory — Surena Hozoori, Anubhav Mukherjee, Agniva Roy, Tao Yu, and Hongyi Zhou
- 2017:** • *Differential Topology* • *Reading Course:* Surgery theory — Katz Ian, Shiyu Liang, Thomas Rodewald, Hunter Vallejos | *Hyperbolic Geometry* — Surena Hozoori, Sudipta Kolay, Andrew Mccullough, Hyunki Min, Anubhav Mukherjee
- 2016:** • *Reading Course:* Convex Surfaces — Surena Hozoori, Sudipta Kolay, Andrew Mccullough, Hyunki Min
- 2015:** • *Algebraic Topology* • *Reading Courses:* Morse Theory and Handlebody Decompositions — Sudipta Kolay, Andrew Mccullough | Heegaard Floer Theory and Contact Geometry — Benjamin Ide, Sudipta Kolay, Andrew Mccullough, Eric Sabo | *Contact Geometry* — Sudipta Kolay, Andrew Mccullough
- 2014:** • *Differential Topology* • *Differential Geometry*
- 2013:** • *Reading Courses:* Open book decompositions — Jamie Conway | *Knot contact homology* — Amey Kaloti, Jamie Conway
- 2012:** • *Reading Course:* Contact Geometry — Jamie Conway
- 2011:** • *Functional Analysis* • *Reading Courses:* Morse Theory and Handlebodies — Jamie Conway | *Open book decompositions* — Alan Diaz | *Open books, Heegaard diagrams and knot homology* — Bulent Tosun
- 2010:** • *Reading Courses:* Spectral Sequences and Characteristic Classes — Alan Diaz, Yi Huang, and Kangkang Wang | *Khovanov homology* — Alan Diaz | *Heegaard Floer homology* — Bulent Tosun
- 2009:** • *Algebraic Topology I* • *Introduction to Geometry and Topology II* • *Reading Courses:* Contact Geometry — Alan Diaz and Amey Kaloti | *Algebraic topology* — Hyunshik Shin | *Heegaard-Floer theory* — Amey Kaloti | *Legendrian Knots* — Anh Tran | *Ng knot invariants* — Anh Tran | *3-manifold topology* — Meredith Casey | *Contact structures on Seifert fibered spaces* — Amey Kaloti | *Khovanov homology* — Alan Diaz | *Legendrian knots* — Bulent Tosun
- 2008:** • *Introduction to Geometry and Topology I* • *Algebraic Topology II* • *Reading Course:* Hodge Theory — Alan Diaz and Amey Kaloti
- 2007:** • *Algebra II* • *4-manifold topology* • *Algebraic Topology I* • *Reading Course:* Differential Topology — James Krysiak and Anh Tran
- 2006:** • *Algebra I* • *Reading Course:* Riemannian and Contact geometry — Rafal Komendarczyk
- 2004:** • *Algebraic Topology I* • *Contact Geometry II* • *Reading Courses:* Confoliations — James Tripp | *Knot Theory* — Michael McDuff
- 2003:** • *Contact Geometry I* • *3-manifold topology II* • *Reading Course:* Holomorphic Curves I and II — Stephan Schönenberger
- 2002:** • *3-manifold topology I* • *Geometry of Curves and Surfaces* • *Topology* • *Reading Course:* Symplectic topology — Sang Seon Kim

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**UNDERGRADUATE CLASSES**


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- 2018:** • *Reading course:* 4-manifold topology — DeVon Ingram
- 2017:** • *Algebraic Topology* • *Analysis II*
- 2016:** • *Introduction to Topology* • *Differential Geometry*
- 2013:** • *Differential Geometry*
- 2012:** • *Introduction to Topology* • *Calculus III*
- 2011:** • *Analysis II*
- 2010:** • *Analysis I* • *Topology*

**2009:** • *Topology*  
**2008:** • *Calculus III (Vector Calculus)*  
**2007:** • *Reading course: Introduction to Topology* — Nicole Larsen and AJ Friend  
**2006:** • *Calculus III (Vector Calculus)* • *Algebraic Topology* • *Reading courses: Topics in point set topology* — Justin Michael | *Riemannian geometry* — Ehsan Najafabadi  
**2005:** • *Honors Differential Equations*  
**2004:** • *Calculus IV* (Spring and Fall)  
**2002:** • *Calculus I*  
**2001:** • *Calculus IV* • *Differential Equations*  
**2000:** • *Differential Equations* • *Multi-Variable Calculus*  
**1998:** • *Multi-Variable Calculus* • *Calculus* • *Linear Algebra*  
**Prior to 1998:** • *Calculus* • *Elementary Mathematics Education Course* • *Pre-Calculus*

## TALKS

### Lecture Series/Mini Courses

<b>Submanifolds in contact topology</b> , University of Arkansas	April, 2016
<b>Contact structures and Legendrian submanifolds</b> , University of Arkansas	Mar, 2013
<b>Braids and Contact Geometry</b> , University of Seville	June, 2011
<b>Introduction to Contact Topology</b> , MSRI	Aug, 2009
<b>Contact geometry and low-dimensional topology</b> , Park City Mathematics Institute	July, 2006
<b>Open Books and Contact Geometry</b> , Alfred Renyi Institute	June, 2004
<b>Legendrian Knots</b> , University of Munich	Feb, 2003
<b>Introduction To Contact Geometry</b> , Rutgers University	Fall, 2002

### Invited Conference Talks

<b>AMS Regional Meeting Special Session</b> , University of Arkansas	Oct, 2018
<b>UCLA Topology workshop 2018</b> , UCLA	Jan, 2018
<b>Georgia International Topology Conference</b> , University of Georgia	May, 2017
<b>AMS Regional Meeting Special Session</b> , North Carolina State University	Nov, 2016
<b>Georgia Topology Conference (lightning talk)</b> , University of Georgia	May, 2016
<b>AMS Regional Meeting Special Session</b> , University of Georgia	Mar, 2016
<b>AMS Regional Meeting Special Session</b> , University of Georgia	Mar, 2016
<b>Augmentations and Legendrians at the IAS</b> , Institute for Advanced Study	Feb, 2016
<b>Princeton Low-Dimensional Topology Workshop</b> , Princeton University	June, 2015
<b>AMS Regional Meeting Special Session</b> , University of Nevada, Las Vegas	Apr, 2015
<b>Spring 2015 Redbud conference</b> , Oklahoma State University	April, 2015
<b>Spring 2015 Redbud conference</b> , Oklahoma State University	April, 2015
<b>AMS Regional Meeting Special Session</b> , Georgetown University	Mar, 2015
<b>Joint Mathematics Meetings Special Session</b> , San Antonio Convention Center	Jan, 2015



Combinatorial Link Homology Theories, Braids, and Contact Geometry, ICERM	Aug, 2014
Combinatorial Link Homology Theories, Braids, and Contact Geometry, ICERM	Aug, 2014
AMS Regional Meeting Special Session, Washington University	Oct, 2013
AMS Regional Meeting Special Session, Temple University	Oct, 2013
Higher-dimensional contact topology, Nantes University	Sept, 2013
Low-dimensional Topology after Floer, Centre de recherches mathématiques	July, 2013
Interactions between low dimensional topology and mapping class groups, Max Planck Institute	July, 2013
Spring Redbud Geometry and Topology Conference, University of Arkansas	Mar, 2013
Symplectic and Low Dimensional Topologies in Interaction,, Simons Center	Dec, 2012
AMS Regional Meeting Special Session, Tulane University	Oct, 2012
Knotted Fields, Kavli Institute for Theoretical Physics	July, 2012
Knotted Fields, Kavli Institute for Theoretical Physics	July, 2012
Georgia Topology Conference, University of Georgia	May, 2012
Geometry Festival, Duke University	April, 2012
Clifford Lectures, Tulane University	Mar, 2012
Trimester on Contact and Symplectic Topology Conference, Nantes University	June, 2011
Ninth Annual Graduate Student Topology and Geometry Conference, Michigan State University	Apr, 2011
AMS Regional Meeting Special Session, Georgia Southern U.	Mar, 2011
AMS Regional Meeting Special Session, Joint Math. Meetings	Jan, 2011
AMS Regional Meeting Special Session, UCLA	Oct, 2010
Knots, Contact Geometry and Floer Homology, University of Tokyo	May, 2010
Pacific NW Geometry Seminar/Bay Area Differential Geometry Seminar, Stanford University	Feb, 2010
Introductory Workshop: SCGT Program, MSRI	Aug, 2009
Georgia International Topology Conference (Introductory talks), University of Georgia	May, 2009
AMS Regional Meeting Special Session, NC State University	Apr, 2009
Conference on Topology and Geometry of Knots, OK State University	Mar, 2009
Holomorphic curves: algebraic structures and geometric application, Stanford University	Aug, 2008
Prospectives in Analysis, Geometry and Topology, Stockholm University	May, 2008
Illinois-Indiana Symplectic Geometry Conference, Purdue University at Indianapolis	Mar, 2008
Knotting mathematics and art, U of South Florida	Nov, 2007
Workshop on Symplectic Field Theory, University of Colima	Jan, 2007
34th Texas Topology and Geometry Conference, University of Texas	Oct, 2005
Great Lakes Geometry Conference, Perimeter Institute for Theoretical Physics	April, 2005
Georgia Topology Conference, University of Georgia	June, 2004
Floer Homology, Gauge Theory, and Low Dimensional Topology, Alfred Renyi Institute	June, 2004
Geometry and Topology of Manifolds, McMaster University	May, 2004
Cornell Topology Festival(also Colloquium), Cornell University	May, 2004
Topology in and around dimension three, BIRS	Sep, 2003
Georgia Topology Conference, University of Georgia	June, 2003
Contact Topology in Montreal, University of Quebec	Apr, 2003
AMS Invited Address, Courant Institute	Apr, 2003
XVIIIth Annual Geometry Festival: in Honor of P. Griffiths, Duke University	Mar, 2003
Asymptotic Topology, Foliations, and Dynamical Systems Conference, University of Munich	Jul, 2002
AMS Regional Meeting Special Session, Georgia Tech	Mar, 2002
Oberwolfach 4-manifolds Conference, Oberwolfach	Jul, 2001
Georgia International Topology Conference, University of Georgia	May, 2001
Bay Area Joint Symplectic Geometry Seminar, Stanford University	Mar, 2001

Bay Area Joint Symplectic Geometry Seminar, Stanford University	Dec, 2000
Georgia Topology Conference, University of Georgia	Jul, 2000
AMS Regional Meeting Special Session, UC, Santa Barbara	Mar, 2000
Bay Area Topology Seminar, UC, Berkeley	Feb, 2000
West Coast Topology Conference, Stanford University	Apr, 1999
AMS/MAA Joint National Meeting, San Antonio	Jan, 1999
AMS Regional Meeting Special Session, Kansas State	Mar, 1998
Bay Area Joint Symplectic Geometry Seminar, UC, Berkeley	Dec, 1997
AMS Regional Meeting Special Session, Georgia Tech	Oct, 1997
Dehn Surgery Conference, University of Arkansas	Mar, 1997
4-Manifold Workshop, MSRI	Jan, 1997
Georgia Topology Conference, University of Georgia	June, 1996

### Colloquia

University of Oregon, Eugene, OR	May, 2018
Rutgers University, New Brunswick, NJ	Apr, 2018
University of Alabama, Tuscaloosa, AL	Jan, 2018
Louisiana State University, Baton Rouge, LA	Sept, 2017
University of Massachusetts, Amherst, Amherst, MA	Mar, 2017
Georgia Southern University, Statesboro, GA	Jan, 2017
Columbia University, New York City, NY	Feb, 2016
University of Iowa, Iowa City, IA	May, 2015
University of Rochester, Rochester, NY	Mar, 2015
Georgia Southern University, Statesboro, GA	Feb, 2015
University of Pittsburgh, Pittsburgh, PA	Jan, 2015
Rice University, Houston, TX	Oct, 2014
Princeton University, Princeton, NJ	Mar, 2014
Columbus State University, Columbus, GA	Mar, 2014
Washington University, St. Louis, St. Louis, MO	May, 2013
Boston College, Boston MA	May, 2012
University of Virginia, Charlottesville, VA	Sept, 2011
Brandeis University, Boston, MA	April, 2011
Columbia University, New York, NY	April, 2011
University of Minnesota, Minneapolis, MN	Nov, 2010
Tulane University, New Orleans, LA	Oct, 2010
University of Arkansas, Fayetteville, AR	April, 2009
Kansas State University, Manhattan, KS	April, 2008
Louisiana State University, Baton Rouge, LA	Oct, 2007
Rice University, Houston, TX	Mar, 2007
University of Massachusetts, Amherst, MA	Mar, 2006
California State University, Northridge, Northridge, CA	Mar, 2005
University of California, Riverside, Riverside, CA	Mar, 2005
Georgia Institute of Technology, Atlanta, GA	Feb, 2005
Rice University, Houston, TX	Oct, 2004
Cornell University (also Conference Talk), Ithaca, NY	May, 2004

University of California, San Diego, La Jolla, CA	Feb, 2004
University of Southern California, Los Angeles, CA	Jan, 2004
George Washington University, Washington D.C.	Oct, 2003
Dartmouth University, Hanover, NH	Oct, 2003
SUNY Buffalo, Buffalo, NY	Mar, 2003
Rice University, Houston, TX	Oct, 2002
Osaka University, Osaka, Japan	May, 2002
George Washington University, Washington D.C.	Mar, 2002
University of Georgia, Athens, GA	Mar, 2002
Bryn Mawr, Philadelphia, PA	Oct, 2001
Emory University, Atlanta, GA	Feb, 2001
University of Pennsylvania, Philadelphia, PA	Oct, 2000
Washington University, St. Louis, MO	Feb, 2000
Santa Clara University, Santa Clara, CA	Oct, 1999
Tulane University, New Orleans, LA	Jan, 1999
Auburn University, Auburn, AL	Jan, 1999
University of Nevada, Reno, NV	Feb, 1998
Emory University, Atlanta, GA	Oct, 1997

### Seminar Talks

#### 2018

•University of Oregon, Eugene, OR •Columbia University, New York City, NY •University of Alabama, Tuscaloosa, AL

#### 2017

•Louisiana State University, Baton Rouge, LA •University of Massachusetts, Amherst, MA  
•University of Los Angeles, Los Angeles, CA •University of Georgia, Athens, GA

#### 2016

•Bryn Mawr College, Bryn Mawr, PA •Bryn Mawr College, Bryn Mawr, PA •CUNY, New York City, NY  
•Columbia University, New York City, NY •State University of New York, Stony Brook, NY

#### 2015

•Mittag-Leffler Institut, Djursholm, Sweden •King's College London, London, UK •University of Iowa, Iowa City, IA •University of Rochester, Rochester, NY

#### 2014

•Princeton University, Princeton, NJ •MIT, Boston, MA

#### 2013

•Simons Center, Stony Brook, NY

#### 2012

•Boston College, Boston MA •Louisiana State University, Baton Rouge, LA •Rice University, Houston, TX  
•University of Texas, Austin, TX

#### 2011

•Duke University, Durham, NC •University of Virginia, Charlottesville, VA •Imperial College London, London, UK  
•Cambridge University, Cambridge, UK •Michigan State University, East Lansing, MI  
•Columbia University, New York, NY •University of Pennsylvania, Philadelphia, PA

**2010**

•University of Minnesota, Minneapolis, MN •MSRI, Berkeley, CA •MSRI, Berkeley, CA •University of California, Davis, Davis, CA

**2009**

•University of Arkansas, Fayetteville, AR •Emory University, Atlanta, GA •University of Pennsylvania, Philadelphia, PA •Columbia University, New York, NY •Columbia University, New York, NY

**2008**

•Rice University, Houston, TX •University of Munich, Munich, Germany •Kansas State University, Manhattan, KS •California Institute of Technology, Pasadena, CA

**2007**

•Louisiana State University, Baton Rouge, LA •Louisiana State University, Baton Rouge, LA •Michigan State University, East Lansing, MI •Michigan State University, East Lansing, MI •Michigan State University, East Lansing, MI •University of Texas, Austin, TX •Columbia University, New York City, NY •Rice University, Houston, TX •University of Virginia, Charlottesville, VA

**2006**

•Emory University, Atlanta, GA •University of Georgia, Athens, GA

**2005**

•University of Georgia, Athens, GA •University of Georgia, Athens, GA •Rutgers University Analysis Seminar, New Brunswick, NJ •California Institute of Technology, Pasadena, CA •University of California, Santa Barbara, Santa Barbara, CA •University of California, Berkeley, Berkeley, CA •Stanford University, Palo Alto, CA •Columbia University, New York, NY •University of California, Santa Barbara, Santa Barbara, CA

**2004**

•Courant Institute, NYC, NY •Columbia University, NYC, NY

**2003**

•University of Virginia, Charlottesville, VA •Dartmouth University, Hanover, NH •Courant Institute, NYC, NY •University of California, Berkeley, CA •SUNY Buffalo, Buffalo, NY •Georgia Technical Institute, Atlanta, GA •Princeton University, Princeton, NJ

**2002**

•Columbia University, NYC, NY •Columbia University, NYC, NY •Rutgers University, New Brunswick, NJ •Tokyo Institute of Technology, Tokyo, Japan •University of Tokyo, Tokyo, Japan •University of Tokyo, Tokyo, Japan •Johns Hopkins University, Baltimore, MD •University of Georgia, Athens, GA •Princeton University, Princeton, NJ

**2001**

•University of California, Santa Barbara, CA •Rutgers University, New Brunswick, NJ •University of California, Berkeley, CA

**2000**

•U Penn, Philadelphia, PA •U Penn, Philadelphia, PA •State University of New York, Stony Brook, NY •University of California, Riverside, CA •Columbia University, NYC, NY •New York University, NYC, NY •Massachusetts Institute of Technology, Cambridge, MA •University of Illinois, Urbana, IL

**1999**

•University of California, Berkeley, CA •University of California, Berkeley, CA •University of Texas, Austin, TX •University of Texas, Austin, TX •Rice University, Houston, TX •Tulane University, New

Orleans, LA •University of Georgia, Athens, GA •Duke University, Durham, NC •Duke University, Durham, NC

**1998** \_\_\_\_\_

•University of California, Berkeley, CA •University of California, Santa Barbara, CA

**1997** \_\_\_\_\_

•University of California, Irvine, CA •University of California, Berkeley, CA •University of Georgia, Athens, GA •State University of New York, Stony Brook, NY

**1996** \_\_\_\_\_

•Rice University, Houston, TX