

————— (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

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

PROFESSIONAL POSITIONS HELD

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

VISITING POSITIONS

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

AWARDS, GRANTS AND HONORS

NATIONAL SCIENCE FOUNDATION GRANT Title: “ <i>Tech Topology Conference III</i> ” (PI with Co-PI with Margalit)	2012–2015
SIMONS FELLOWS IN MATHEMATICS Simons Foundation	2015-2016
NATIONAL SCIENCE FOUNDATION GRANT Title: “ <i>Contact Topology in Dimension Three and Higher</i> ”	2014
AMERICAN INSTITUTE OF MATHEMATICS SQUARE GRANT Title: “ <i>Symplectic and Contact Geometry and Mapping Class Groups</i> ”	2014–2015
NATIONAL SCIENCE FOUNDATION GRANT Title: “ <i>EFRI-ODISSEI: Novel Perpetual Reconfigurable & Multi-Band</i> ” (co-PI with Tentzeris and Georgakopoulos)	2013–2015
NATIONAL SCIENCE FOUNDATION GRANT Title: “ <i>Contact Geometry in dimensions high and low</i> ”	2013–2015
FELLOW OF THE AMERICAN MATHEMATICAL SOCIETY American Mathematical Society	Fall 2012
NATIONAL SCIENCE FOUNDATION GRANT Title: “ <i>Tech Topology Conference II</i> ” (PI with Co-PI with Margalit)	2012–2015
NATIONAL SCIENCE FOUNDATION GRANT Title: “ <i>Tech Topology Conference</i> ” (Co-PI with Margalit)	Fall 2011
NATIONAL SCIENCE FOUNDATION GRANT Title: “ <i>Contact Geometry, Contact Homology and Open Book Decompositions</i> ”	2008–2013
30TH WILLIAM J. SPENCER LECTURE <i>Kansas State University, Manhattan, Kansas</i>	April 2008

NATIONAL SCIENCE FOUNDATION CAREER GRANT	2003–2008
Title: “ <i>Knot Theory and Dynamics in Contact Geometry</i> ”	
NSF FOCUSED RESEARCH GROUP GRANT	2003–2006
Title: “ <i>Holomorphic Curves and Low Dimensional Topology</i> ”	
(Co-PI with Eliashberg, Hsiang, Hutchings, Mrowka, Ozsvath, Stern, Szabo)	
INVITED ONE HOUR AMS ADDRESS	April 2003
<i>Courant Institute</i> , New York, NY	
NATIONAL SCIENCE FOUNDATION GRANT	2002–2005
Title: “ <i>Knot Theory and Dynamics in Contact Geometry</i> ”	
(replaced with CAREER grant in 2003)	
NATIONAL SCIENCE FOUNDATION GRANT	Fall 2000
for <i>contact geometry workshop</i> (Co-PI with Eliashberg and Cieliebak)	
AMERICAN INSTITUTE ON MATHEMATICS AWARD	Fall 2000
for <i>contact geometry workshop</i> (Co-PI with Eliashberg and Cieliebak)	
NATIONAL SCIENCE FOUNDATION POSTDOC. FELLOWSHIP	1997–2001
REGENTS ENDOWED GRADUATE FELLOWSHIP	August 1990
PHI BETA KAPPA	April 1989

PAPERS

Publications

- MONOIDS IN THE MAPPING CLASS GROUP**
Joint work with Jeremy Van Horn-Morris, To Appear in *Geometry and Topology Monographs*
- 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
- ADMISSIBLE TRANSVERSE SURGERY DOES NOT PRESERVE TIGHTNESS**
Joint work with John A Baldwin, *Math. Annalen* **357** (2013), 441–468
- KNOT CONTACT HOMOLOGY**
Joint work with Tobias Ekholm, Lenhard Ng and Michael G. Sullivan, *Geometry and Topology* **17** (2013), 975–1112
- ON KNOTS IN OVERTWISTED CONTACT STRUCTURES**
Journal of Quantum Topology **4** (2013), 229–264
- 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
- LEGENDRIAN AND TRANSVERSE TWIST KNOTS**
Joint work with Lenhard Ng and Vera Vértési, *J. European Math. Soc* **15** (2013), 969–995
- LEGENDRIAN AND TRANSVERSE CABLES OF POSITIVE TORUS KNOTS**
Joint work with Douglas J. LaFountain and Bulent Tosun, *Geometry and Topology* **16** (2012), 1639–1689
- TIGHTNESS IN CONTACT METRIC 3-MANIFOLDS**
Joint work with Rafal Komendarczyk and Patrick Massot, *Invent. Math* **188** (2012), 621–657

10. **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
11. **A NOTE ON THE SUPPORT NORM OF A CONTACT STRUCTURE**
Joint work with John A Baldwin, *Proc. Sympos. Pure Math* **82** (2009), 79–88
12. **FIBERED TRANSVERSE KNOTS AND THE BENNEQUIN BOUND**
Joint work with Jeremy Van Horn-Morris, *IMRN* **2011** (2011), 1483–1509
13. **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
14. **TORSION AND OPEN BOOK DECOMPOSITIONS**
Joint work with David Shea Vela-Vick, *IMRN* **2010** (2010), 4385–4398
15. **ON GENERALIZED LUTZ TWISTS**
Joint work with Dishant M Pancholi, *Proc. of the LMS* **84** (2011), 670–688
16. **RATIONAL LINKING AND CONTACT GEOMETRY**
Joint work with Kenneth L Baker, *Progr. Math* **296** (2009), 19–37
17. **A DUALITY EXACT SEQUENCE FOR LEGENDRIAN CONTACT HOMOLOGY**
Joint work with Tobias Ekholm and Joshua Sabloff, *Duke Math. J* **150** (2009), 1–75
18. **LECTURES ON CONTACT GEOMETRY IN LOW-DIMENSIONAL TOPOLOGY**
Low dimensional topology (IAS/Park City Math. Ser., 15), (2009), 229–264
19. **A NOTE ON STEIN FILLINGS OF CONTACT MANIFOLDS**
Joint work with Anar Akhmedov, Thomas E. Mark and Ivan Smith, *MRL* **15** (2008), 1127–1132
20. **ON CONTACT SURGERY**
Proc. Amer. Math. Soc **136** (2008), 3355–3362
21. **INVARIANTS OF CONTACT STRUCTURES FROM OPEN BOOKS**
Joint work with Burak Ozbagci, *Trans. Amer. Math. Soc* **260** (2008), 3133–3151
22. **CONTACT STRUCTURES ON 3-MANIFOLDS ARE DEFORMATIONS OF FOLIATIONS**
MRL **14** (2007), 775–779
23. **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
24. **OPEN BOOKS AND PLUMBINGS**
Joint work with Burak Ozbagci, *IMRN* **2006** (2006), 1–17
25. **REALIZING 4-MANIFOLDS AS ACHIRAL LEFSCHETZ FIBRATIONS**
Joint work with Terry Fuller, *IMRN* **2006** (2006), 1–21
26. **CONTACT MANIFOLDS**
Encyclopedia of Mathematical Physics, eds. J.-P. Francoise, G.L. Naber and S.T. Tsou, Oxford: Elsevier, v. 1 (2006), 631–636
27. **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
28. **INVARIANTS OF KNOTS, EMBEDDINGS AND IMMERSIONS VIA CONTACT GEOMETRY**
Joint work with Tobias Ekholm, *Fields Inst. Commun* **47** (2005), 77–96
29. **CABLING AND TRANSVERSE SIMPLICITY**
Joint work with Ko Honda, *Annals of Math* **162** (2005), 1305–1333

30. **GENERIC HYDRODYNAMIC INSTABILITY OF CURL EIGENFIELDS**
Joint work with Robert Ghrist, *SIAM J. Appl. Dyn. Syst.* **4** (2005), no. 2, 377-390
31. **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
32. **LEGENDRIAN AND TRANSVERSAL KNOTS**
in the Handbook of Knot Theory (Elsevier B. V., Amsterdam), (2005), 105-185
33. **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
34. **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
35. **PLANAR OPEN BOOK DECOMPOSITIONS AND CONTACT STRUCTURES**
IMRN **2004** (2004), no. 79, 4255-4267
36. **ON SYMPLECTIC FILLINGS**
Algebr. Geom. Topol. **4** (2004), 73-80
37. **ON CONNECTED SUMS AND LEGENDRIAN KNOTS**
Joint work with Ko Honda, *Adv. Math.* **179** (2003), 59-74
38. **INTRODUCTORY LECTURES ON CONTACT GEOMETRY**
Proc. Sympos. Pure Math. **71** (2003), 81-107
39. **PROBLEMS IN LOW DIMENSIONAL CONTACT TOPOLOGY**
Joint work with Lenhard Ng, *Proc. Sympos. Pure Math.* **71** (2003), 337-357
40. **TIGHT CONTACT STRUCTURES AND ANOSOV FLOWS**
Joint work with Robert Ghrist, *Topol. and its Appl.* **124** (2002), 211-219
41. **INVARIANTS OF LEGENDRIAN KNOTS AND COHERENT ORIENTATIONS**
Joint work with Lenhard Ng and Joshua Sabloff, *J. Sympl. Geom.* **1** (2002), no. 2, 321-368
42. **CONTACT TOPOLOGY AND HYDRODYNAMICS II: SOLID TORI**
Joint work with Robert Ghrist, *Ergod. Th. & Dynam. Sys.* **22** (2002), 819-833
43. **TIGHT CONTACT STRUCTURES WITH NO SYMPLECTIC FILLINGS**
Joint work with Ko Honda, *Invent. Math.* **148** (2002), no. 3, 609-626
44. **ON SYMPLECTIC COBORDISMS**
Joint work with Ko Honda, *Math. Annalen* **323** (2002), no. 1, 31-39
45. **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
46. **AN INDEX FOR CLOSED ORBITS IN BELTRAMI FIELDS**
Joint work with Robert Ghrist, *Phys. D* **159** (2001), no. 3-4, 180-189
47. **ERRATUM TO: TIGHT CONTACT STRUCTURES ON LENS SPACES**
Commun. Contemp. Math. **3** (2001), no. 4, 649-652
48. **ON THE NONEXISTENCE OF TIGHT CONTACT STRUCTURES**
Joint work with Ko Honda, *Ann. of Math. (2)* **153** (2001), no. 3, 749-766
49. **TIGHT CONTACT STRUCTURES ON LENS SPACES**
Commun. in Contemp. Math. **2** (2000), no. 4, 559-577

50. **CONTACT TOPOLOGY AND HYDRODYNAMICS III: KNOTTED ORBITS**
Joint work with Robert Ghrist, *Trans. Amer. Math. Soc* **352** (2000), 5781-5794
51. **CONTACT TOPOLOGY AND HYDRODYNAMICS I: BELTRAMI FIELDS AND THE SEIFERT CONJECTURE**
Joint work with Robert Ghrist, *Nonlinearity* **13** (2000), 441-458
52. **STRATIFIED INTEGRALS AND UNKNOTS IN INVICID FLOWS**
Joint work with Robert Ghrist, *Contemp. Math* **246** (1999), 99-111
53. **GRADIENT FLOWS WITHIN PLANE FIELDS**
Joint work with Robert Ghrist, *Comm. Math. Helvetici* **74** (1999), 507-529
54. **TIGHT CONTACT STRUCTURES VIA DYNAMICS**
Joint work with Robert Ghrist, *Proceedings of the AMS* **127** (1999), 3697-3706
55. **TRANSVERSAL TORUS KNOTS**
Geometry and Topology **3** (1999), 253-268
56. **SYMPLECTIC CONVEXITY IN LOW-DIMENSIONAL TOPOLOGY**
Topol. and its Appl **88** (1998), 3-25
57. **SMOOTH STRUCTURES ON COLLARABLE ENDS OF 4-MANIFOLDS**
Joint work with Zarko Bizaka, *Topology* **37** (1998), 461-467
58. **SYMPLECTIC CONSTRUCTIONS ON 4-MANIFOLDS**
Dissertation, University of Texas (December 1996), 1-92

PREPRINTS

1. **SUTURED FLOER HOMOLOGY AND INVARIANTS OF LEGENDRIAN AND TRANSVERSE KNOTS**
Joint work with David Shea Vela-Vick and Rumén Zarev, Preprint 2014
2. **ERRATUM TO: "ON GENERALIZING LUTZ TWISTS"**
Joint work with Dishant M Pancholi, Preprint 2015
3. **CONTACT STRUCTURES ON 5-MANIFOLDS**
Preprint 2012
4. **QUANTITATIVE DARBOUX THEOREMS IN CONTACT GEOMETRY**
Joint work with Rafal Komendarczyk and Patrick Massot, Preprint 2012

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

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

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)

- *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**
- *AMS Sectional Meeting Contact and Symplectic Geometry*
Courant Institute, New York NY **April 2003**
- *Symplectic and Contact Geometry*
Stanford University, Stanford CA **May 2001**
- *Low Dimensional Contact Geometry*
Stanford University, Stanford CA **May 2000**

SEMINARS (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**

SEMINARS (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 • Engineering and Physical Sciences Research Council (UK grant agency) • European Union's European Commission • L'Agence Nationale de la Recherche (French Research Agency) • Israel Science Foundation • 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 _____

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

REFEREE _____

• Acta Mathematica Sinica • Algebraic and Geometric Topology • American Journal of Mathematics • Annals of Mathematics • Annales de l'Institut Fourier • 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 • Geometriae Dedicata • Geometry and Topology • Houston Journal of Mathematics • International Journal of Mathematics and Mathematical Sciences • International Mathematics Research Notes • Inventiones mathematicae • Involve, a Journal of Mathematics • 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 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 AMS • Proceedings of the LMS • Proceedings – Mathematical Sciences (Indian Academy of Sciences) • Topology • Topology and its application • Transactions of the AMS • various conference proceedings

Departmental Committees

GA TECH

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

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

JAMIE CONWAY (Ga Tech)	Current
ALAN DIAZ (Ga Tech)	Current
SUDIPTA KOLAY (Ga Tech)	Current
ANDREW MCCULLOUGH (Ga Tech)	Current
AMEY KALOTI (Ga Tech)	Summer 2014
Thesis: Stein fillings of contact structures supported by planar open books	
Placement: Instructor, University of Iowa, Iowa City, IA	
MEREDITH CASEY (Ga Tech)	Fall 2013
Thesis: Branched Covers of Contact Manifolds	
Placement: Instructor, University of Colorado, Colorado Springs, CO	
BULENT TOSUN (Ga Tech)	Summer 2012
Thesis: Legendrian and transverse knots and their invariants	
Placement: CIRGET, Montreal, Canada and Postdoc, Max Plank Institute, Bonn, Germany	
DAVID SHEA VICK (U. Penn)	Spring 2009
Thesis: Applications of Ozsváth-Szabó invariants to contact geometry	
Placement: NSF Postdoc, Columbia University, New York, NY	

SINEM ONARAN (CELIK) (METU, co-advisor Korkmaz)	Spring 2009
Thesis: Invariants of Legendrian knots from open book decompositions	
Placement: Leibniz Fellowship at Oberwolfach, Germany	
ELENA PAVELESCU (BOGDAN) (U. Penn)	Spring 2008
Thesis: Braids and open book decomposition	
Placement: Postdoc Rice University, Houston, TX	
STEPHAN SCHÖNENBERGER (U. Penn)	Summer 2005
Thesis: Planar open books and symplectic fillings	
Placement: Winterthur Insurance, Zurich, Switzerland	
JAMES TRIPP (U. Penn)	Spring 2005
Thesis: Contact structures on open 3-manifolds	
Placement: NSA	

MASTERS STUDENTS

AMEY KALOTI (Ga Tech)	Spring 2008
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PHD DEFENSE COMMITTEES

• 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 • Farbod Shokrieh (PhD, Ga Tech) June 2013 • Anh Tran (PhD, Ga Tech) April 2012 • Jonathan Williams (PhD, University of Texas) April 2010 • Baptiste Chantraine (PhD, Université du Québec à Montréal) November 2009 • Michael Kettner (PhD, Georgia Institute of Technology) August 2007 • Jeremy Van Horn-Morris (PhD, University of Texas) July 2007 • Rafal Komendarczyk (PhD, Ga Tech) November 2005 • Yongzhong Xu (PhD, Rutgers) April 2005 • Madeeha Khalid (PhD, U Penn) May 2003

ORAL EXAM COMMITTEE (Ga Tech)

• 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

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

GRADUATE CLASSES

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

UNDERGRADUATE CLASSES

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

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

Invited Conference Talks

Princeton Low-Dimensional Topology Workshop , Princeton University	June, 2015
AMS Regional Meeting Special Session , University of Nevada, Las Vegas	Apr, 2015
Spring 2015 Redbud conference , Oklahoma State University	April, 2015
Spring 2015 Redbud conference , Oklahoma State University	April, 2015
AMS Regional Meeting Special Session , Georgetown University	Mar, 2015
Joint Mathematics Meetings Special Session , 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 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
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

2015

•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