
(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 with honors <i>University of Texas, Austin, Texas</i>	May 1989

AWARDS, GRANTS AND HONORS

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

NATIONAL SCIENCE FOUNDATION POSTDOC. FELLOWSHIP	1997–2001
REGENTS ENDOWED GRADUATE FELLOWSHIP	August 1990
PHI BETA KAPPA	April 1989

PROFESSIONAL POSITIONS HELD

PROFESSOR <i>Georgia Institute of Technology, Atlanta, Georgia</i>	2008–present
MEMBER <i>Mathematical Sciences Research Institute, Berkeley, California</i>	2009–2010
ASSOCIATE PROFESSOR <i>Georgia Institute of Technology, Atlanta, Georgia</i>	2005–2008
ASSOCIATE PROFESSOR <i>University of Pennsylvania, Philadelphia Pennsylvania</i>	2005–2006
VISITOR <i>University of California, Santa Barbara, California</i>	Winter 2005
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
RESEARCH ASSISTANT <i>Max Plank Institute, Bonn, Germany</i>	Spring 1992
TEACHING ASSISTANT AND ASSISTANT INSTRUCTOR <i>University of Texas, Austin, Texas</i>	1989–1996

PUBLICATIONS

- TIGHTNESS IN CONTACT METRIC 3–MANIFOLDS**
Joint work with Rafal Komendarczyk and Patrick Massot, To Appear in *Invent. Math*
- A NOTE ON THE SUPPORT NORM OF A CONTACT STRUCTURE**
Joint work with John A Baldwin, To Appear in *Proceedings of the Georgia Topology Conference 2009*
- ON GENERALIZED LUTZ TWISTS**
Joint work with Dishant M Pancholi, To Appear in *Proc. of the LMS*
- RATIONAL LINKING AND CONTACT GEOMETRY**
Joint work with Kenneth L Baker, To Appear in *Perspectives in Analysis, Geometry, and Topology (in honor of Oleg Viro)*
- FIBERED TRANSVERSE KNOTS AND THE BENNEQUIN BOUND**
Joint work with Jeremy Van Horn-Morris, *IMRN* **2011** (2011), 1483–1509
- 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
- TORSION AND OPEN BOOK DECOMPOSITIONS**
Joint work with David Shea Vela-Vick, *IMRN* **2010** (2010), 4385–4398

8. **A DUALITY EXACT SEQUENCE FOR LEGENDRIAN CONTACT HOMOLOGY**
Joint work with Tobias Ekholm and Joshua Sabloff, *Duke Math. J* **150** (2009), 1–75
9. **LECTURES ON CONTACT GEOMETRY IN LOW-DIMENSIONAL TOPOLOGY**
Low dimensional topology (IAS/Park City Math. Ser., 15), (2009), 229–264
10. **A NOTE ON STEIN FILLINGS OF CONTACT MANIFOLDS**
Joint work with Anar Akhmedov, Thomas E. Mark and Ivan Smith, *MRL* **15** (2008), 1127–1132
11. **ON CONTACT SURGERY**
Proc. Amer. Math. Soc **136** (2008), 3355–3362
12. **INVARIANTS OF CONTACT STRUCTURES FROM OPEN BOOKS**
Joint work with Burak Ozbagci, *Trans. Amer. Math. Soc* **260** (2008), 3133–3151
13. **CONTACT STRUCTURES ON 3-MANIFOLDS ARE DEFORMATIONS OF FOLIATIONS**
MRL **14** (2007), 775–779
14. **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
15. **OPEN BOOKS AND PLUMBINGS**
Joint work with Burak Ozbagci, *IMRN* **2006** (2006), 1–17
16. **REALIZING 4-MANIFOLDS AS ACHIRAL LEFSCHETZ FIBRATIONS**
Joint work with Terry Fuller, *IMRN* **2006** (2006), 1–21
17. **CONTACT MANIFOLDS**
Encyclopedia of Mathematical Physics, eds. J.-P. Francoise, G.L. Naber and S.T. Tsou, Oxford: Elsevier, v. 1 (2006), 631–636
18. **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
19. **INVARIANTS OF KNOTS, EMBEDDINGS AND IMMERSIONS VIA CONTACT GEOMETRY**
Joint work with Tobias Ekholm, *Fields Inst. Commun* **47** (2005), 77–96
20. **CABLING AND TRANSVERSE SIMPLICITY**
Joint work with Ko Honda, *Annals of Math* **162** (2005), 1305–1333
21. **GENERIC HYDRODYNAMIC INSTABILITY OF CURL EIGENFIELDS**
Joint work with Robert Ghrist, *SIAM J. Appl. Dyn. Syst* **4** (2005), no. 2, 377–390
22. **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
23. **LEGENDRIAN AND TRANSVERSAL KNOTS**
in the Handbook of Knot Theory (Elsevier B. V., Amsterdam), (2005), 105–185
24. **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
25. **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
26. **PLANAR OPEN BOOK DECOMPOSITIONS AND CONTACT STRUCTURES**
IMRN **2004** (2004), no. 79, 4255–4267
27. **ON SYMPLECTIC FILLINGS**
Algebr. Geom. Topol **4** (2004), 73–80
28. **ON CONNECTED SUMS AND LEGENDRIAN KNOTS**

- Joint work with Ko Honda, *Adv. Math* **179** (2003), 59-74
29. **INTRODUCTORY LECTURES ON CONTACT GEOMETRY**
Proc. Sympos. Pure Math **71** (2003), 81-107
30. **PROBLEMS IN LOW DIMENSIONAL CONTACT TOPOLOGY**
Joint work with Lenhard Ng, *Proc. Sympos. Pure Math* **71** (2003), 337-357
31. **TIGHT CONTACT STRUCTURES AND ANOSOV FLOWS**
Joint work with Robert Ghrist, *Topol. and its Appl* **124** (2002), 211-219
32. **INVARIANTS OF LEGENDRIAN KNOTS AND COHERENT ORIENTATIONS**
Joint work with Lenhard Ng and Joshua Sabloff, *J. Sympl. Geom* **1** (2002), no. 2, 321-368
33. **CONTACT TOPOLOGY AND HYDRODYNAMICS II: SOLID TORI**
Joint work with Robert Ghrist, *Ergod. Th. & Dynam. Sys* **22** (2002), 819-833
34. **TIGHT CONTACT STRUCTURES WITH NO SYMPLECTIC FILLINGS**
Joint work with Ko Honda, *Invent. Math* **148** (2002), no. 3, 609-626
35. **ON SYMPLECTIC COBORDISMS**
Joint work with Ko Honda, *Math. Annalen* **323** (2002), no. 1, 31-39
36. **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
37. **AN INDEX FOR CLOSED ORBITS IN BELTRAMI FIELDS**
Joint work with Robert Ghrist, *Phys. D* **159** (2001), no. 3-4, 180-189
38. **ERRATUM TO: TIGHT CONTACT STRUCTURES ON LENS SPACES**
Commun. Contemp. Math **3** (2001), no. 4, 649-652
39. **ON THE NONEXISTENCE OF TIGHT CONTACT STRUCTURES**
Joint work with Ko Honda, *Ann. of Math. (2)* **153** (2001), no. 3, 749-766
40. **TIGHT CONTACT STRUCTURES ON LENS SPACES**
Commun. in Contemp. Math **2** (2000), no. 4, 559-577
41. **CONTACT TOPOLOGY AND HYDRODYNAMICS III: KNOTTED ORBITS**
Joint work with Robert Ghrist, *Trans. Amer. Math. Soc* **352** (2000), 5781-5794
42. **CONTACT TOPOLOGY AND HYDRODYNAMICS I: BELTRAMI FIELDS AND THE SEIFERT CONJECTURE**
Joint work with Robert Ghrist, *Nonlinearity* **13** (2000), 441-458
43. **STRATIFIED INTEGRALS AND UNKNOTS IN INVICID FLOWS**
Joint work with Robert Ghrist, *Contemp. Math* **246** (1999), 99-111
44. **GRADIENT FLOWS WITHIN PLANE FIELDS**
Joint work with Robert Ghrist, *Comm. Math. Helvetici* **74** (1999), 507-529
45. **TIGHT CONTACT STRUCTURES VIA DYNAMICS**
Joint work with Robert Ghrist, *Proceedings of the AMS* **127** (1999), 3697-3706
46. **TRANSVERSAL TORUS KNOTS**
Geometry and Topology **3** (1999), 253-268
47. **SYMPLECTIC CONVEXITY IN LOW-DIMENSIONAL TOPOLOGY**
Topol. and its Appl **88** (1998), 3-25
48. **SMOOTH STRUCTURES ON COLLARABLE ENDS OF 4-MANIFOLDS**
Joint work with Zarko Bizaka, *Topology* **37** (1998), 461-467
49. **SYMPLECTIC CONSTRUCTIONS ON 4-MANIFOLDS**

| *Dissertation, University of Texas* (December 1996), 1-92 |

PREPRINTS

1. **KNOT CONTACT HOMOLOGY**
Joint work with Tobias Ekholm, Lenhard Ng and Michael G. Sullivan, Preprint 2011
2. **LEGENDRIAN AND TRANSVERSE CABLES OF POSITIVE TORUS KNOTS**
Joint work with Douglas J. LaFountain and Bulent Tosun, Preprint 2011
3. **ON KNOTS IN OVERTWISTED CONTACT STRUCTURES**
Preprint 2010
4. **FILTRATIONS ON THE KNOT CONTACT HOMOLOGY OF TRANSVERSE KNOTS**
Joint work with Tobias Ekholm, Lenhard Ng and Michael G. Sullivan, Preprint 2010
5. **CABLING, CONTACT STRUCTURES AND MAPPING CLASS MONOIDS**
Joint work with Kenneth L Baker and Jeremy Van Horn-Morris, Preprint 2010
6. **LEGENDRIAN AND TRANSVERSE TWIST KNOTS**
Joint work with Lenhard Ng and Vera Vértési, Preprint 2010

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

BOARD OF DIRECTORS	
Mathematical Sciences Publishers	2007–Present
PRINCIPLE EDITOR	
Algebraic and Geometric Topology	2007–Present
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	
National Science Foundation Grant Panel	2004, 06, 07, 09

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)

- *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-Present

• 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

<i>Math Reviews (about 90 to date)</i>	1997-2008
<i>Bulletin of the AMS</i>	2006

REVIEWER OF GRANT PROPOSALS FOR

• National Science Foundation • Czech Science Foundation • European Union's European Commission • L'Agence Nationale de la Recherche (French Research Agency) • Israel Science Foundation • Netherlands Organization for Scientific Research • Scientific and Technological Research Council of Turkey • National Research Foundation South Africa • National Science Foundation, Georgia

REFEREE

• Acta Mathematica Sinica • Algebraic and Geometric Topology • American Journal of Mathematics • Annals of Mathematics • Archiv der Mathematik • Asian Journal of Mathematics • Bulletin of the London Mathematical Society • Commentarii Mathematici Helvici • Communications in Analysis and Geometry • Communications in Contemporary Mathematics • Compositio Mathematica • Differential Geometry and its Application • Duke Mathematics Journal • Ergodic Theory and Dynamical Systems • Expositiones Mathematicae • Geometriae Dedicata • Geometry and Topology • Houston Journal of Mathematics • International Journal of Mathematics and Mathematical Sciences • International Mathematics Research Notes • 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 London Mathematical Society • Journal of the Ramanujan Mathematical Society • Journal of Mathematical Sciences (the University of Tokyo) • Journal of Topology • Mathematica Japonica • Mathematical Proceedings of the Cambridge Philosophical Society • Mathematical Research Letters • Mathematische Annalen • Michigan Journal of Mathematics • Nonlinearity • Pacific Journal of Mathematics • Proceedings of the AMS • Topology • Topology and its application • Transactions of the AMS • various conference proceedings

Departmental Committees

GA TECH

Teaching Mentor for Greg Blekherman	2011-2013
Faculty Advisory Committee	2011-2013
Salary and Awards Committee	2010-2012
Senior Promotion and Tenure Committee	2010-2012
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 Belgraddek	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

ALAN DIAZ (Ga Tech)	Current
BULENT TOSUN (Ga Tech)	Current
MEREDITH CASEY (Ga Tech)	Current
AMEY KALOTI (Ga Tech)	Current
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

• 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 • Joseph Lucas (Masters, U Penn) April 2002

ORAL EXAM COMMITTEE (Ga Tech)

• Bulent Tosun (2011) • 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)_____

• 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_____

2011: • *Reading Course:* Morse Theory and Handlebodies — Jamie Conway • *Reading Course:* Open book decompositions — Alan Diaz • *Reading Course:* Open books, Heegaard diagrams and knot homology — Bulent Tosun

2010: • *Reading Course:* Spectral Sequences and Characteristic Classes — Alan Diaz, Yi Huang, and Kangkang Wang • *Reading Course:* Khovanov homology — Alan Diaz • *Reading Course:* 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_____

2011: • *Analysis II*

2010: • *Analysis I* • *Topology*
2009: • *Topology*
2008: • *Calculus III (Vector Calculus)*
2007: • *Reading courses:* Introduction to Topology — Nicole Larsen and AJ Friend
2006: • *Calculus III (Vector Calculus)* • *Algebraic Topology* • *Reading course:* 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*

INVITED LECTURE SERIES/MINI COURSES

Lecture	Place	Date
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

Conference	Place	Date
Trimester on Contact and Symplectic Topology Conference	Nantes University	June, 2011
Ninth Annual Graduate Student Topology and Geometry Conference	East Lansing, MI	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 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

2011

•Duke University, Durham, NC •University of Virginia, Charlottesville, VA •Imperial Colledge 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, 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