

# Curriculum Vitae

**Alexander Gorokhovsky**

Department of Mathematics

University of Colorado, Boulder

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## Academic Positions:

- 2015–present* University of Colorado, Boulder  
Professor, Department of Mathematics
- 2008–2015* University of Colorado, Boulder  
Associate Professor, Department of Mathematics
- 2002–2008* University of Colorado, Boulder  
Assistant Professor, Department of Mathematics
- 1999–2002* University of Michigan  
Assistant Professor, Department of Mathematics

## Education:

- 1992–1999* Ph.D. Mathematics  
Department of Mathematics  
The Ohio State University  
Advisor: Prof. Henri Moscovici  
Thesis title: “Explicit formulae for characteristic classes in noncommutative geometry”
- 1991–1992* Graduate School  
Technion – Israel Institute of Technology
- 1988–1991* Department of Mechanics and Mathematics  
Moscow State University

## Awards and Fellowships:

- 2017* Fellowship from the Max Planck Institute for Mathematics, Bonn
- 2014* Award from “Fondation Sciences Mathématiques de Paris”  
to support visit to “Laboratoire Sophie Germain,” Paris.
- 2008–2013* Colorado Math Award  
“For Outstanding Service to the Students”

*2009-2015* PI on NSF grant DMS-0900968 in the amount of \$149,605  
“Studies in Noncommutative geometry and Index theory”

*2009-2013* Co-PI on NSF grant DMS-0852527 in the amount of \$64,533  
“SM: Collaborative Research: GPOTS Special Meetings 2009/2010  
High-Altitude Training for the Next Generation of  
Operator Theorists and Operator Algebraists.”

*2010* Fellowship from the Max Planck Institute for Mathematics, Bonn

*2007* Fellowship from the SNF Center in  
Non-Commutative Geometry, University of Copenhagen

*2005* Fellowship from the SNF Center in  
Non-Commutative Geometry, University of Copenhagen

*2004-2008* PI on NSF grant DMS-0400342 in the amount of \$97,132  
“Research in local index theory and noncommutative geometry.”

*2002* Fellowship from the European Union network  
“Non-commutative geometry and operator algebras”

*2001-2005* PI on NSF grant DMS-0100412 in the amount of \$81,630  
“Studies in Noncommutative geometry and Index theory”

*2000* Fellowship from the European Union network  
“Non-commutative geometry and operator algebras”

*2000* Rakham Fellowship, University of Michigan

*1998-1999* Presidential Fellowship,  
Ohio State University

*1996* Summer Fellowship, IHES, France

*1993-1997* Summer Research Assistanship,  
Ohio State University

*1992-1993* University Fellowship,  
Ohio State University

*1989-1991* Fellowship for Excellence in Course Work, Moscow State University

### Visiting Positions:

- Visitor, University Paris-Diderot, February 2017
- Visitor, Copenhagen University, November-December 2016
- Senior Simons Professor, IMPAN, Warsaw, September 2016
- Visitor, MRI, Ohio State University, August 2016
- Visitor, Laboratoire Sophie Germain (Université Paris Diderot-Paris 7), May -July 2014
- Visitor, Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France, June -August 2012
- Visitor, Institut des Hautes Études Scientifiques, Bures-sur-Yvette, Bures-sur-Yvette, France, June -August 2011
- Visitor, Università di Roma “La Sapienza”, Rome, Italy, June 2011.
- Visiting Professor, Université Paul Verlaine, Metz, France, July 2010
- Member, Max Planck Institute for Mathematics, Bonn, Jan.15 - Jul 31 2010
- Visitor, Mathematics Research Institute, The Ohio State University, Nov. 15 - Dec. 15 2009
- Visiting Scholar, University of California, Berkeley, August-October 2009
- Visiting Professor, Université Paul Verlaine, Metz, France, June 2009
- Member, Hausdorff Institute for Mathematics, Bonn, Germany Summer 2008
- Copenhagen University, Summer 2008
- Copenhagen University, Summer 2007
- Member, Isaac Newton Institute, Cambridge, UK, Summer 2006
- Copenhagen University, Summer 2005

- Member, Institut Henri Poincaré, Paris, France, Summer 2004

### Submitted Papers:

- A. Gorokhovsky, A. Rubinchik “Necessary and sufficient conditions for determinacy of asymptotically stationary equilibria in olig models”

### Refereed Publications:

1. P. Bressler, A. Gorokhovsky, R. Nest and B. Tsygan “Comparison of spaces associated to DGLA via higher holonomy”
2. A. Gorokhovsky, E. Van Erp “Index theory and noncommutative geometry: a survey” in “Advances in Noncommutative Geometry,” Springer, 2020.
3. A. Gorokhovsky, N. de Kleijn, R. Nest “Equivariant algebraic index theorem,” *Journal of the Institute of Mathematics of Jussieu*, to appear
4. A. Gorokhovsky, Z. Xie “Fibrations and higher products in cohomology” *Journal of Topology and Analysis*, Vol. 11 (2019), No. 01, pp. 135-147.
5. A. Gorokhovsky, D. Sullivan, Z. Xie “Generalized Euler classes, differential forms and commutative DGAs” *Journal of Topology and Analysis*, Vol. 11 (2019), No. 01, pp. 109-118
6. A. Gorokhovsky, H. Moscovici “Index pairing with Alexander-Spanier cocycles.” *Journal of Geometry and Physics*, Volume 133 (2018), pp. 195-209.
7. A. Gorokhovsky, J. Lott. “A Hilbert bundle description of differential  $K$ -theory,” *Advances in Mathematics*, vol. 328 (2018), Pages 661-712.
8. A. Gorokhovsky, A. Rubinchik “Regularity of a general equilibrium in a model with infinite past and future.” *Journal of Mathematical Economics*, vol. 74 (2018), pp. 35-45.
9. M.-T. Benaméur, A. Gorokhovsky, E. Leichtnam “The higher twisted index theorem for foliations,” *Journal of Functional Analysis*, vol. 273, issue 2 (2017), pp. 496-558.
10. P. Bressler, A. Gorokhovsky, R. Nest and B. Tsygan “On quasi-classical limits of DQ-algebroids.” *Compositio Mathematica* vol. 153 (2017), issue 1, pp. 41-67

11. A. Gorokhovsky, H. Moriyoshi, P. Piazza “A note on the higher Atiyah-Patodi-Singer index theorem on Galois coverings.” *Journal of Noncommutative Geometry*, vol. 10 (2016), issue 1, pp. 265—306
12. P. Bressler, A. Gorokhovsky, R. Nest and B. Tsygan. “Deligne 2-groupoid revisited,” “*Theory and Applications of Categories*,” vol. 30 (2015), No. 29, pp. 1001-1016.
13. P. Bressler, A. Gorokhovsky, R. Nest and B. Tsygan. “Formality theorem for gerbes.”, “*Advances in Mathematics*”, vol. 273 (2015), pp. 215–241
14. A. Gorokhovsky. M. Lesch “On the spectral flow for Dirac operators with local boundary conditions.”, *International Mathematics Research Notices*, vol. 2015(2015), issue 17, pp. 8036–8051
15. A. Gorokhovsky, J. Lott “The index of a transverse Dirac-type operator: the case of abelian Molino sheaf.” (*Journal für die Reine und Angewandte Mathematik* vol. 678 (2013), pp. 125 — 162.)
16. P. Bressler, A. Gorokhovsky, R. Nest and B. Tsygan. “Algebraic Index Theorem for Gerbes ” in “Noncommutative Geometry and Global Analysis” (*Contemporary Mathematics* v. 546., published by American Mathematical Society, 2011)
17. M. Benamèur, A. Gorokhovsky. “Local index theorem for projective families.”, (pp. 1-28 in *Perspectives in Noncommutative Geometry*, Fields Institute Communications v. 61, published by American Mathematical Society, 2011)
18. P. Bressler, A. Gorokhovsky, R. Nest and B. Tsygan. “Deformations of Algebroid Stacks,” (*Advances in Mathematics*, vol. 226 (2011), issue 4, pp. 3018-3087)
19. P. Bressler, A. Gorokhovsky, R. Nest, and B. Tsygan “Chern character for twisted complexes,” 16 pages, in *Geometry and Dynamics of Groups and Spaces*, volume 265 of *Progress in Mathematics*. Birkhäuser, 2008.
20. P. Bressler, A. Gorokhovsky, R. Nest, B. Tsygan “Deformations of gerbes on smooth manifolds,” 43 pages, in *K-theory and Noncommutative Geometry*, published by EMS, 2008 pp. 349–393 .

21. P. Bressler, A. Gorokhovsky, R. Nest, B. Tsygan “Deformations of Azumaya algebras.”, in *Actas del XVI Coloquio Latinoamericano de Algebra*. a volume in *Biblioteca de la Revista Matemática Iberoamericana* , 2007, pp. 131-152.
22. P. Bressler, A. Gorokhovsky, R. Nest, B. Tsygan “Deformation quantization of gerbes,” (*Advances in Mathematics* vol. 214 (2007), pp. 230–266)
23. A. Gorokhovsky, “Bivariant Chern character and longitudinal index,” (*Journal of Functional Analysis* vol. 237 (2006) pp. 105–134)
24. A. Gorokhovsky and J. Lott, “Local index theory over foliation groupoids,” (*Advances in Mathematics* vol. 204 (2006), pp. 413–447)
25. A. Gorokhovsky and J. Lott, “Local index theory over étale groupoids,” (*Journal für die Reine und Angewandte Mathematik* vol. 560 (2003), pp. 151–198)
26. A. Gorokhovsky, “Secondary characteristic classes and cyclic cohomology of Hopf algebras,” (*Topology* vol. 41 (2002), pp. 993-1016)
27. A. Gorokhovsky, “Characters of cycles, equivariant characteristic classes and Fredholm modules,” (*Communications in Mathematical Physics* vol. 208 (1) (1999), pp. 1-23).
28. A. Gorokhovsky, “Chern classes in Alexander-Spanier cohomology,” (*K-theory* vol. 15 (3) (1998), pp. 253-268).

#### **Books Edited:**

- “Noncommutative Geometry and Global Analysis” Edited by Alain Connes, Alexander Gorokhovsky, Matthias Lesch, Markus Pflaum and Bahram Rangipour. *Contemporary Mathematics*, 546. American Mathematical Society, Providence, RI, 2011.

#### **Invited Lecture Series:**

- A minicourse on the Atiyah-Singer Index Theorem, workshop “Homología cíclica y teoría del índice”, Universidad de los Andes, Bogota, Colombia, August 2014.
- Minicourse on higher index theory, NCGOA, Vanderbilt University, May 2011

- Series of lectures on “Deformation theory and index theorems”, The Ohio State University, November-December 2009.
- Series of lectures on “Local Index Theorems for foliations”, Workshop on Index Theory, Münster, Germany, November 2005.

**Invited Conference Talks:**

- Talk at the conference “Modern Trends in Non-Commutative Geometry,” Northwestern University, May 2019.
- Talk at the East Coast Operator Algebra Symposium, Ohio State University, Columbus, October 2019.
- Talk at the conference “Conference on PDE and Applications in Memory of Professor B. Yu. Sternin,” Moscow, November 2018.
- Talk at the conference “Secondary and delocalized index invariants,” Copenhagen, June 2018.
- Talk at the conference “Index theory and Singular Structures,” Toulouse, France, May 29-June 2 2017.
- Talk at the Wabash Modern Analysis Seminar, April 2017
- Talk at the conference “Noncommutative Geometry: Index Theory and its Ramifications in Geometry, Topology, and Physics,” Shanghai, China, March 2017
- Talk at the special session “Topology, Representation Theory, and Operator Algebras: A Tribute to Paul Baum” annual Joint Math Meeting, Atlanta, January 2017.
- Talk at the conference “Noncommutative index theory,” IMPAN, Warsaw, October 2016
- Talk at the conference “Cyclic homology,” IMPAN, Warsaw, October 2016
- Talk at the “Conference on Geometry, Representation Theory and the Baum-Connes Conjecture,” Fields Institute, Toronto, July 2016

- Talk at the conference “Noncommutative Geometry and Spectral Invariants,” Montreal, June 29-July 4, 2015
- Talk at the conference ‘Geometric Structures and Spectral Invariants,” Berlin, May 2014
- Talk at the “Noncommutative Geometry Festival,” Texas A&M University, May 2014.
- Talk at the Special Session on “Operator Algebra and Non-commutative geometry” at the joint American Mathematical Society-Romanian Mathematica Society meeting, Alba Iulia, Romania, June 2013.
- Talk at the conference on “ Experimental and Theoretical Methods in Algebra, Geometry and Topology,” Eforie Nord, Romania, June 2013.
- Talk at the NCGOA conference, Vanderbilt University, May 2013
- Talk at the special session “Dirac and Laplace operators in global analysis and geometry,” annual Joint Math Meeting, San Diego, January 2013.
- Talk at the conference on “Interactions Between Ergodic Theory, Number Theory and Noncommutative Geometry,” The Ohio State University, May 2012.
- Talk at the Cornell-Penn State Symplectic Seminar, Penn State, April 2011
- Special Session on Non-commutative Geometry, Canadian Mathematical Society Summer Meeting, University of New Brunswick, Fredericton, Canada, 2010
- First Canadian Hopf algebra conference, Fredericton, Canada, September 2008
- Keynote address, Canadian workshop on Noncommutative geometry, Fields institute, Toronto, August 2008.
- Conference on Noncommutative Geometry, Bonn, July 2008
- Workshop on Noncommutative Geometry, Fields Institute, Toronto, May 2008
- Conference on Trends in Non-commutative Geometry, Evanston, May 2007.



- Fifth Annual Spring Institute on Noncommutative Geometry and Operator Algebras, Nashville, May 2007.
- Workshop on Groupoids in operator algebras and noncommutative geometry, Institut Henri Poincaré, Paris, France, February-April 2007.
- ICM Satellite Conference on K-theory and Noncommutative Geometry, Valladolid, Spain, September 2006.
- Workshop on Noncommutative Geometry and Cyclic Cohomology, Newton Institute, Cambridge, UK, July – August 2006.
- BIRS Workshop on Noncommutative geometry, Banff, Canada April 2006.
- Conference on Noncommutative Geometry, K-theory and Physics, Shonan, Japan, March 2005.
- Conference on Noncommutative Geometry, the Local Index Formula and Hopf Algebras, Toronto, Canada, October 2004
- Wabash miniconference on modern analysis, Indianapolis, September 2004
- Conference on K-theory and Noncommutative geometry, Institut Henri Poincaré, Paris, France, July 2004
- Workshop on Index Problems, Institut Henri Poincaré, Paris, France, April 2004
- American Mathematical Society Special Session on Groupoids in Analysis and Geometry, Boulder, October 2003
- International Conference and Spring School on Noncommutative Geometry and Applications, Nashville, May 2003
- BIRS workshop on Noncommutative Geometry, Banff, Canada, April 2003
- West Coast Operator Algebras Symposium, Boulder, October 2002
- American Mathematical Society Special Session on Noncommutative Geometry, Toronto, Canada, September 2000

- American Mathematical Society-Scandinavian International Mathematics Meeting, Session on  $K$ -theory and Operator Algebras, Odense, Denmark, June 2000
- Meeting on Noncommutative Geometry, Oberwolfach, Germany, March 2000
- Workshop on  $L^2$ -Methods in Geometry, Sarasota, January 2000
- American Mathematical Society Special Session on Operator  $K$ -Theory and its Applications to Geometry and Topology, Providence, October 1999
- American Mathematical Society Special Session on Operator Algebras and Noncommutative Geometry, Penn. State University, October 1998
- European Union Conference on  $C^*$ -algebras and Noncommutative Geometry, University of Copenhagen, Denmark, August 1998.

**Invited Department Seminar Talks:**

- Talk at the Analysis and Probability Seminar, Chalmers University of Technology, Gothenburg, Sweden, November 2019.
- Talk at the Seminar of the Department of Algebra and of the Department of Algebraic Geometry (Shafarevich Seminar), Steklov Mathematical Institute, Moscow, November 2018.
- Talk at the Algebraic Geometry Lab seminar at the Higher School of Economics, Moscow, Russia, June 2017.
- Talk at the “Oberseminar  $C^*$  algebras,” Münster University, May 2017
- Talk at the “Oberseminar Globale Analysis,” Bonn University, April 2017
- Talk at the Functional Analysis Seminar, University of Illinois, Urbana-Champaign, April 2017.
- Talk at the Topology Seminar, Montpellier University, February 2017.
- Talk at the Seminar “Algèbres d’opérateurs”, Paris 7 University, February 2017.
- Talk at the Noncommutative Geometry Seminar, Caltech, January 2017

- Talk at the Operator Algebras Seminar, Copenhagen University, December 2016
- Talk at the Noncommutative Geometry Seminar, Ohio State University, August 2016
- Talk at the Noncommutative Geometry Seminar, Ohio State University, March 2016
- Talk at the Seminar “Algèbres d’opérateurs”, Paris 7 University, May 2014.
- Talk at the Noncommutative Geometry Seminar, Texas A&M University, March 2014
- Talk at the Noncommutative Geometry Seminar, Vanderbilt University, April 2012
- Talk at the GAP seminar, Penn State, April 2011.
- Talk at the Noncommutative Geometry Seminar, Penn State, April 2011
- Talk at the Operator Algebras seminar, University of Copenhagen, May 2010.
- Talk at the seminar on Global Analysis, Bonn University, April 2010.
- Analysis Seminar, SUNY Buffalo, April 2008,
- Geometric Functional Analysis seminar, Penn State University, April 2007
- Noncommutative Geometry Seminar, Northwestern University, March 2007
- Colloquium, University of Oklahoma, March 2006
- Noncommutative Geometry Seminar, Northwestern University, May 2003
- Geometry and Analysis Seminar, University of Colorado, Boulder, September 2002
- Special Colloquium, University of California, Riverside, March 2002
- Special Colloquium, University of Colorado, Boulder, February 2002

- Operator Algebras Seminar, University of California, Santa-Barbara, February 2002
- Special Colloquium, University of California, Santa-Barbara, February 2002
- Special Colloquium, Cincinnati University, February 2002
- Special Colloquium, Texas A & M University, January 2002
- Operator Algebra Seminar at the Copenhagen University, November 2001.
- Geometric Functional Analysis Seminar at the Penn. State University, December 2000
- Geometry Seminar at the University of Michigan, October 2000

#### **Graduate Students Supervised:**

- Eitan Angel, Ph.D. Student, 2005-2010, Ph.D. Awarded (currently instructor at CU Boulder)
- Camilo Mesa, Ph.D. Student, 2006-2012, Ph. D. Awarded, (currently faculty member at Bard High School Early College, Manhattan)
- Patrick Newberry, Awarded Masters degree in Spring 2008, Ph. D. Student, 2008-2012, Ph. D. Awarded,
- Fuchong Liu, MA Awarded Spring 2012. (currently Analyst at Goldman Sachs)
- Joseph Migler, Ph. D. Student 2012 -2015, Ph. D. Awarded (currently Zassenhaus Assistant Professor at the Ohio State University)
- Alexandru Nita, Ph. D. Student 2012 -present.
- Andrew Healy, Ph. D. Student 2015 -present.

#### **Courses Taught:**

- University of Colorado, Boulder:
  - Math 1300, Calculus I – Fall 2002

- Math 2300, Calculus II – Fall 2012
  - Math 2400, Calculus III – Spring 2007
  - Math 2001, Discrete Mathematics, Spring 2014, Fall 2014, Spring 2015
  - Math 3001, Introduction to Analysis, Spring 2011
  - Math 3130, Linear Algebra – Fall 2003, Fall 2005
  - Math 3135, Honors Linear Algebra – Fall 2015
  - Math 3140, Introduction to Modern Algebra – Spring 2006
  - Math 3200, Introduction to Topology – Fall 2003
  - Math 3430, Differential Equations – Spring 2019
  - Math 4430, Differential Equations – Fall 2002, Fall 2004, Fall 2007, Fall 2010, Fall 2011
  - Math 6210, Topology I – Fall 2004, Fall 2005, Fall 2014
  - Math 6220, Topology II – Spring 2003, Spring 2005
  - Math 6230, Differential Geometry I – Spring 2012
  - Math 6240, Differential Geometry II – Spring 2008, Fall 2013
  - Math 6260, Geometry and Topology of Quantum Fields and Strings – Fall 2008
  - Math 6280, Advanced Algebraic Topology – Fall 2007
  - Math 8330, Functional Analysis I – Fall 2006, Fall 2015
  - Math 8340, Functional Analysis II – Spring 2007, Fall 2011, Spring 2013, Spring 2019
- University of Michigan, Ann Arbor:
    - Calculus I
    - Calculus II
    - Linear Algebra
    - Advanced Matrix Algebra
    - Functional Analysis II

**Faculty Coordinator for the Following Courses:**

- Math 2300, Calculus II – Spring 2005, Fall 2012
- Math 2400, Calculus III – Spring 2006.
- Math 2400, Calculus III – Spring 2007

**Participation in FTEP symposia:**

- “Teaching in a Nutshell”, Spring 2006
- “Teaching for Understanding General Concepts”, Spring 2007

**Service at the Department of Mathematics, University of Colorado, Boulder:**

- Member, Problem of the Month Committee, 2002-present
- Member, Putnam Committee, 2007-present; Chair 2008-2009, 2014-2015
- Member, Graduate Committee, 2002-2006, 2008-2012
- Member, Undergraduate Committee, 2013-2014
- Member, Task force on Evaluation, Reappointment, Promotion, Tenure, 2007
- Member, Executive Committee, 2010-2012.
- Member, Computer Committee, 2008
- Member, Primary Hiring Committee in Analysis, 2006–2007
- Member, Primary Hiring Committee in Analysis, 2012–2013
- Member and Co-chair, Primary Hiring Committee in Algebra, 2006–2007
- Member, Primary Hiring Committee in Differential Equations, 2005 –2006
- Member, Primary Hiring Committee in Geometry, 2011-2012
- Member, Analysis Preliminary Examination Committee, Fall 2003

- Chair, Analysis Preliminary Examination Committee, Spring 2005
- Member, Analysis Preliminary Examination Committee, Fall 2006
- Member, Analysis Preliminary Examination Committee, Fall 2007
- Member, Analysis Preliminary Examination Committee, Spring 2008
- Member, Analysis Preliminary Examination Committee, Spring 2010
- Member, Analysis Preliminary Examination Committee, Fall 2011
- Member, Analysis Preliminary Examination Committee, Fall 2012
- Member, Analysis Preliminary Examination Committee, Fall 2013
- Chair, PUEC for A. Spina's reappointment. Fall 2010
- Member, PUEC for A. Spina's reappointment. Fall 2012
- Chair, PUEC for J. Englander's tenure and promotion. Fall 2011
- Chair, PUEC for F.T. Liu's reappointment. Fall 2014

**Service on the Graduate Examination Committees:**

- Member, Comprehensive Examination Committee of Vera Furst, Fall 2003
- Member, Comprehensive Examination Committee of Anne Cervino, Fall 2003
- Member, Comprehensive Examination Committee of Kevin Manley, Fall 2003
- Member, Comprehensive Examination Committee of Sooran Kang, Fall 2005
- Member, Master's Degree Examination Committee of John Thiel, Spring 2005
- Member, Ph.D. Examination Committee of Bob Cohen, Fall 2005
- Member, Ph. D. Examination Committee of Amy Chambers, Spring 2006
- Member, Master's Degree Examination Committee of Patrick Brown, Summer 2006

- Member, Master's Degree Examination Committee of Jonathan Meadows, Fall 2006
- Member, Master's Degree Examination Committee of Tiffany Tasset, Fall 2006
- Chair, Comprehensive Examination Committee of Eitan Angel, Spring 2007
- Member, Master's Degree Examination Committee of Gary Surman, Summer 2007
- Chair, Master's Degree Examination Committee of Patrick Newberry, Spring 2008
- Member, Ph.D. Examination Committee of Sooran Kang, Spring 2009
- Member, Honor Thesis Committee of Kevin Fiedler, Spring 2011
- Member, Ph.D. Examination Committee of Matthew Stackpole, Spring 2011
- Member, Ph.D. Examination Committee of Eun Kim, Spring 2011
- Member, Dissertation Committee of Alexandre Alcantara, Université Paul Verlaine, Metz, France Spring 2011
- Member, Comprehensive Examination Committee of Matthew Grimes, Fall 2012
- Chair, Comprehensive Examination Committee of Joseph Migler, Fall 2012
- Member, Comprehensive Examination Committee of Krisztian Havasi, Spring 2013
- Member, Comprehensive Examination Committee of Trubee Davison, Spring 2013
- Chair, Comprehensive Examination Committee of Alex Nita, Spring 2013
- Member, Comprehensive Examination Committee of Hao Song (PHYS), Fall 2013
- Member, Comprehensive Examination Committee of Ze Cheng (APPM), Fall 2013
- Member, Comprehensive Examination Committee of Keli Parker, Spring 2014



- Member, Comprehensive Examination Committee of Josh Frinak, Fall 2015

**Service at the College of Arts and Sciences, University of Colorado, Boulder:**

- Member, Arts and Sciences Fund for Excellence committee, Spring 2013-present.

**Meetings and Conferences Coorganized:**

- American Mathematical Society Special Session on ‘Noncommutative Geometry and Geometric Analysis’, Boulder, Fall 2003.
- Workshop on “Homotopy invariance of eta invariants and its relation to Novikov conjecture”, Summer 2005.
- GPOTS conference and special year in Boulder, 2009
- “Noncommutative geometric methods in global analysis” conference in Bonn, Germany, 2009.
- GPOTS Spring 2010 Miniworkshop, Boulder, March 2010.
- CMS Satellite Workshop on Noncommutative Geometry, Department of Mathematics and Statistics, University of New Brunswick, Canada, June 2010.
- Conference in Honor of Ryszard Nest’s 60th Birthday, Copenhagen University, September 2010.
- Special Session on “Noncommutative Geometry and Geometric Analysis” at the American Mathematical Society meeting in Boulder, Colorado on April 13-14, 2013

**Articles Refereed for:**

- *Advances in Mathematics.*
- *Algebraic and Geometric Topology.*
- *Communications in Mathematical Physics.*
- *Compositio Mathematica*

- *Geometric Analysis Functional Analysis.*
- *Journal für die Reine und Angewandte Mathematik.*
- *Geometry and Topology.*
- *K-theory.*
- *Math. Z.*
- *Journal of K-theory.*
- *Journal of Noncommutative Geometry*
- *Journal of Differential Geometry and Appl.*
- *Journal of Differential Geometry*
- *Journal of Functional Analysis.*
- *Journal of Topology and Analysis*
- *Journal of Topology*
- *Houston Journal of Mathematics*
- *Journal of Geometry and Physics*
- *Journal of Mathematical Physics*
- *SIGMA*
- *Transactions of AMS*

**Book Manuscripts Refereed for:**

- Birkhäuser publishers.

**Grant Proposals Reviewed for:**

- NSF (National Science Foundation)
- NSA (National Security Agency)

- NSERC (Natural Sciences and Engineering Research Council of Canada)
- DFG (German Research Foundation)
- DFF (Danish Council for Independent Research)
- NWO (Netherlands Organisation for Scientific Research)
- P. Deligne contest (a competition of young mathematicians from Russia, Ukraine and Byelorussia).

**Reviews of Articles Written:**

- 31 reviews written for the “Mathematical reviews”.

**Outreach Activities:**

- Coorganizer of the “Problem of the month” competition.
- Coorganizer of the Putnam competition.

