

Curriculum Vitae¹
STEVEN HURDER

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EDUCATION

- University of Illinois, Urbana-Champaign, Illinois
 - **Degree:** Ph.D. in Mathematics, May 1980
 - **Thesis Title:** *Dual Homotopy Invariants of G-Foliations*
 - **Thesis Advisor:** Franz W. Kamber
- Rice University, Houston, Texas
 - **Degree:** B.A. in Mathematics, May 1975

UNIVERSITY POSITIONS HELD

Academic Appointments

- Professor Emeritus, University of Illinois at Chicago, 2012–present
- Director of Undergraduate Studies, University of Illinois at Chicago, 2007–2011
- Director of Graduate Studies, University of Illinois at Chicago, 2004–2006
- Professor, University of Illinois at Chicago, 1990–2012
- Ulam Visiting Professor, University of Colorado, 1988–89
- Member, Institute for Advanced Study, Princeton, Fall 1987
- Associate Professor, University of Illinois at Chicago, 1986–89
- Assistant Professor, University of Illinois at Chicago, 1985–86
- Member, Mathematical Sciences Research Institute, Berkeley, 1983–85
- Instructor, Princeton University, 1981–83
- Member, Institute for Advanced Study, Princeton, 1980–81

Visiting

- Professor Invité, Université de Strassbourg, France, October/November 2012
- Professor Invité, Université de Nice, France, 2012
- Visitor, Centre de Recerca Matemàtica, Barcelona, Spain, April–May 2010
- Professor Invité, Institut Henri Poincaré, Paris, France, January–March 2007
- Invited Professor, Chuo University, Tokyo, Japan, September 2003
- Professor Invité, Université de Bourgogne, Dijon, France, March 1999
- Professor Invité, École Normale Supérieure, Paris, June 1998
- Professor Invité, Université de Toulouse, France, March 1996
- Visitor, Universidade de Santiago de Compostela, Spain, September 1994
- Invited Professor, University of Tokyo, Japan, April 1994
- Member, Institut Hautes Etudes Scientifique, Bures-sur-Yvette, February, 1994
- Professor Invité, Université de Lyon I, February 1994
- Visitor, Humbolt University, Berlin, June 1993
- Visitor, Universidade de Santiago de Compostela, Spain, May 1992
- Member, Mathematical Sciences Research Institute, Berkeley, April 1992
- Member, Institut Hautes Etudes Scientifique, Bures-sur-Yvette, June, 1987
- Visitor, Free University of Berlin, Germany, May 1987
- Visitor, Mathematical Institute, Oxford, Spring, 1987
- Professor Invité, Université de Lille, I, France, May 1986

¹October 20, 2024

RESEARCH INTERESTS

- Differential topology & geometry of foliations
- Ergodic theory & dynamics of foliations
- Smooth ergodic theory & rigidity of group actions
- Spectral & index theory of foliated operators

FELLOWSHIPS, AWARDS AND PROFESSIONAL RECOGNITION

- Institute for Advanced Study Fellowship, 1980-81
- Mathematical Sciences Research Institute Fellowship, 1983-85
- Alfred P. Sloan Foundation Fellowship, 1985-87
- Invited Hour Speaker, A.M.S. Regional Meeting, Kansas, October 1988.
- University Scholar, University of Illinois, 1991-94
- UIC ALTHE Grant for Curriculum Development, 1995-97
- UIC Teaching Recognition Program Award, 1997
- UIC Award for Excellence in Teaching, 2007
- UIC Luminary Award, 2010

GRANT SUPPORT

- Simons Foundation, Collaboration Grant for Mathematicians, 2014-2019.
- Principal Investigator, NSF Research Grants at UIC, 1984-86; 1986-89; 1989-1991; 1991-94; 1994-97; 1997-2000; 2004-07.
- Principal Investigator, NSF Grant on Geometric Rigidity, Boulder May 1989
- Principal Investigator, NSF Grant for Geometry Special Year at UIC, 1987-88
- NSF Summer Grant at Princeton University, 1981-83

THESIS SUPERVISED

- Andrew Rich: *A Lefschetz Theorem for Foliated Manifolds*, August 1989.
- Mohan Ramachandran: *Eta Invariants for Open Manifolds with Boundary*, August 1990.
- Arek Goetz: *Dynamics of Piecewise Isometries*, August 1996.
- Kristen (Wottreng) Schreck: *Computer Methods in Descriptive and Differential Geometry: Monge's Legacy*, August 1999.
- Wojciech Florek: *Foliations: A Probabilistic, Potential Theory Approach*, December 2003.
- Joseph Shive: *Conjugation Problems for Hirsch Foliations*, August 2005.
- Jessica Dyer: *Dynamics of Equicontinuous Group Actions on Cantor Sets*, December 2015.
- Daniel Ingebretson: *Hausdorff dimension of Kuperberg minimal sets*, August 2018.

POSTDOCTORAL RESEARCH SUPERVISION

- Chris Connell, doctorate from University of Michigan, 1999
NSF Postdoctoral Fellowship 1999-2001
- Hellen Colman, doctorate from University of Santiago de Compostela, 1998
Fellowship from the Xunta Galicia, Spain 1999-2000
- Andrzej Biś, doctorate from Lodz University, Poland, 1995
European Union Fellowship Commission Marie-Curie Fellowship, January 2005–2006
- Dirk Töben, doctorate from University of Köln, 2003
Fellowship from the Schwerpunktprogramm SPP 1154 of the Deutsche Forschungsgemeinschaft, September 2005 to October 2006, September–October 2007, February–March 2008.
- Ana Rechtman, doctorate from École Normale Supérieure, Lyon, France, 2009
CONACyT Postdoctoral Research Fellow, January-December 2010.

GRADUATE RESEARCH SEMINARS ORGANIZED

- “Analytic Torsion and Algebraic K-Theory”, Fall 1985.
- “Foliations and Physics”, Spring 1988.
- “KK-theory”, Spring 1990.
- “Exotic cohomology”, Fall 1990.
- “KK, AKK & Cyclic Cohomology Theories”, (with Mel Rothenberg) Spring 1991.
- “Graduate Student Geometry Seminar”, (with Sa’ar Herbronsky) Spring 1992.
- “Differential Geometry”, Summer 1992.
- “1-Dimensional Dynamical Systems”, Fall 1992.
- “Dynamics and Foliations”, Spring 1993.
- “Novikov Conjecture”, (with Mel Rothenberg) Spring 1993.
- “Hyperbolic Groups”, (with Howard Masur) Fall 1993.
- “Geometric Group Theory”, (with Howard Masur) Spring 1994.
- “Current Aspects of Geometry and Topology”, (with Howard Masur) Spring 1996.
- “Dynamical Systems and Laminations”, (with Laura DeMarco) Fall 2007.
- “Geometry, Topology, and Dynamical Systems” 1985–2012 (at various times with Laura DeMarco, Alex Furman, Howard Masur and Kevin Whyte.)
- “Topological and smooth dynamical systems”, (with Olga Lukina) Fall 2013 - Spring 2016.

CONFERENCES ORGANIZED at UIC

- “Midwest Topology”, (with Brayton Grey) February 1987; April 1991; February 1993; February 1995; February 1996; February 2001; February 2002
- “Foliations Workshop”, March 1988.
- “Analysis and Geometry Workshop”, (with Howard Masur) 1988.
- “Midwest Index Theory”, May 1995.
- “Midwest Dynamical Systems”, (with Laura DeMarco & Alex Furman) November 2009.
- “Undergraduate Mathematics Symposium”, (principal organizer, David Dumas) October 2010, 2011 & 2012.
- “GroupoidFest 2018”, (with Olga Lukina) November 2018.
- “Midwest Dynamical Systems”, November 2019.

CONFERENCES ORGANIZED ELSEWHERE

- “Analysis and Geometry”, special session at A.M.S. Regional Meeting, Kansas, October 1988 (with Norberto Salinas).
- “Cyclic Chern Character Workshop” at University of Colorado at Boulder, April 1989.
- “Geometric Rigidity”, Conference & Workshop at University of Colorado at Boulder, May 1989 (supported by N.S.F.).
- “Geometry and Dynamical Systems”, special session at A.M.S. Regional Meeting, Chicago, September 1998 (with Ralf Spatzier).
- “Rigidity in Dynamics, Geometry, and Group Theory”, special session at A.M.S. Regional Meeting, New York, April 2003 (with David Fisher and Kevin Whyte).
- “Foliations 2005”, International Conference on Foliation Theory and Related Fields, Uniwersytet Łódzki, Łódź, Poland (with Rémi Langevin, Takashi Tsuboi and Paweł Walczak).
- “Real Dynamics”, special session at Joint International Meeting of the American Mathematical Society (AMS) and the Polish Mathematical Society (PTM), Warsaw, Poland, August 2007, (with Paweł Walczak and Michał Misiurewicz).
- “Foliations and Dynamics”, special session at Joint International Meeting of the American Mathematical Society (AMS) and the Sociedad de Matemática de Chile, Puñón, Chile, December 2010, (with Andrés Navas).
- “Dynamical Systems”, satellite meeting of the British Mathematics Colloquium, Leicester, UK, April 2011, (Co-organizer of Special Session with Alex Clark and Olga Lukina).
- “Trends in Dynamics”, International Conference on Dynamical Systems, Evanston, IL, April 2011, (Bryna Kra and Amie Wilkinson, local organizers).
- “Foliations 2012”, International Conference on Topology, Geometry and Dynamics of foliations, Lodz, Poland, June 2012, (Maciej Czarnecki and Paweł Walczak, local organizers).
- “Workshop Geometry and Dynamics of Foliations”, ICMAT, Madrid, September 2014.

INVITED TALKS

Talks at International Conferences

- Chern Symposium, Berkeley, June 1980.
- Georgia Topology Conference, July 1980.
- Conference “Ergodic Theory and Geometry”, MSRI, Berkeley, May 1984.
- Conference “Operator Algebras and Geometry”, Berkeley, June 1985.
- Conference “Scattering Theory and Harmonic Analysis”, Stanford University, July 1985.
- Conference “Dynamical Systems and Smooth Ergodic Theory”, Univ. of Maryland, March 1987.
- Conference “Cyclic Cohomology and Its Applications”, Mathematical Institute, Warwick, U.K., April 1987.
- Conference , U.S.-U.K. Summer Workshop, New Hampshire, July 1987.
- A.M.S. Summer Institute “Analytic Invariants of Elliptic Operators”, Bowdoin, Maine, July 1988.
- Conference “Foliations”, Univ. of Maryland, College Park, September 1989.
- Workshop “Applications of Algebraic Topology to Geometry and Analysis”, MSRI, Berkeley, January 1990.
- Conference “Ergodic Theory”, Göttingen, July 1990.
- International Colloquium “Dynamical Systems”, Lyon, July 1990.
- Workshop “Topology”, Rio de Janeiro, January 1992.
- Conference “Lie groups and geometric rigidity”, MSRI, Berkeley, April 1992.
- Conference “Cyclic cohomology and geometry”, Oxford University, July 1992
- Workshop “Index theory and Novikov conjectures”, Oberwolfach, Germany, September 1993.
- Symposium “Geometric Study of Foliations, Tokyo, November 1993.
- Workshop “Ergodic Theory of Abelian Actions”, Warwick, June 1994.
- Workshop “Spectral theory of singular spaces”, Oberwolfach, Germany, July 1994.
- Symposium “Differential Geometry Analysis and Geometry in Foliated Manifolds”, Santiago de Compostela, Spain, July 1994.
- Symposium “Foliations: Geometry and Dynamics”, Banach Center, Warsaw, May 1995.
- Symposium “Ergodic Theory and Dynamical Systems”, Banach Center, Warsaw, June, 1995.
- Conference “Workshop on Hyperbolic Dynamical Systems”, Warwick, England, July 10-20, 1995.
- Symposium “Index Theory, Coarse Geometry and Topology of Manifolds”, Boulder, August 15-19, 1995.
- Workshop “Dynamical Systems and Related Topics”, Penn. State University, October 18-20, 1995
- Conference “Index Theory in Honor of Paul Baum”, University of Colorado, Boulder, July 15-19, 1996.
- Conference “Ergodic Theory, Geometry and Arithmetic”, Erwin Schrödinger Institute, Vienna, February 3-14, 1997.
- Conference “Geometry and Dynamics of Foliations and Laminations”, Stony Brook, May 1998.
- Conference “Dirac operators, index theorems and numerical invariants of manifolds”, Usedom, Germany, March 7-13, 1999.
- Conference “Workshop on the Baum-Connes conjecture”, E.T.H., Zürich, May 2-5, 1999.
- Conference “Groupoids in Physics and Geometry”, Boulder, Colorado, June 20-25, 1999.
- Conference “Workshop on Ergodic theory of Z^d -actions”, Mathematical Institute of the University of Warwick, April 3-7, 2000.
- Conference “Foliations: Geometry and Dynamics”, Banach Center, Warsaw, Poland, May 29-June 9, 2000.
- Conference “Noncommutative Geometry”, Mount Holyoke College, Massachusetts, June 18-29, 2000.
- Conference “Lusternick-Schnirelmann Category in the New Millennium”, Mount Holyoke College, Massachusetts, July 29-August 2, 2001.
- Conference “Geometry and Foliations 2003”, Kyoto, Japan, September 10-19, 2003.
- Conference “BGamma School”, Chuo University, Tokyo, Japan, September 29 to October 2, 2003.
- Conference “Recent Progress in Dynamics”, MSRI, Berkeley, September 27, 2004 to October 1, 2004.
- Conference “Foliations 2005”, Lodz, Poland, June 14-23, 2005.
- Workshop “Global Dynamics Beyond Uniform Hyperbolicity”, Northwestern University, Evanston, May 17-22, 2006
- Workshop “Ergodic Theory and Dynamical Systems”, Szklarska Poreba, Poland, June 18 - 24, 2006
- Workshop “Groupoids in operator algebras and noncommutative geometry”, Insitut Henri Poincaré, Paris, France, February 26 - March 2, 2007.
- Conference “Foliations, Topology and Geometry in Rio”, PUC-Rio, Rio de Janeiro, Brazil, August 6-10, 2007.
- Conference “Geometry and Topology”, Jagiellonian University, Krakow, Poland, June 30-July 5, 2008.
- Conference “VIII International Colloquium of Differential Topology”, Santiago de Compostela, Spain, July 2008.
- Workshop “Solenoids”, Delft, Netherlands, August 2009.
- Conference “Gfest 2009”, Boulder, CO, October 2009.
- Workshop “Geometry of Foliations”, CRM Barcelona, April 2010.
- Minicourse “Dynamics of Foliations”, CRM Barcelona, May 2010.
- Conference “Geometry and Topology of Foliations”, CRM Barcelona, July 2010.

- Invited 45 minute talk, Joint Meeting AMS-SMC, Pucon, Chile, December 2010.
- Workshop “ANR SubTile”, Université Claude Bernard Lyon 1, Lyon, France, March 2011.
- Colloquium, “British Mathematics Colloquium”, Leicester, UK, April 2011
- Conference “11th Nagoya International Mathematics Conference”, Nagoya, Japan, March 2012.
- Conference “Sixth European Conference on Mathematics”, Krakow, Poland, July 2012.
- Conference “International Conference Beyond Uniform Hyperbolicity”, Bedlewo, Poland, June 2013.
- Conference “Geometry and Foliations 2013”, Tokyo, Japan, September 2013.
- Minicourse at Conference “29th Summer Conference on TOPOLOGY and its APPLICATIONS”, Staten Island, NY, July 2014.
- Conference “Automatic Sequences, Aperiodic Order, Number Theory”, Delft, The Netherlands, October 2015.
- Conference “50th Spring Topology and Dynamical Systems Conference”, Waco, TX, March 2016.
- Conference “FOLIATIONS 2016”, Bedlewo, Poland, July 2016.
- Conference “31st Summer Conference on Topology and its Applications”, Leicester, England, August 2016.
- Conference “Mathematical Congress of Americas MCA2017”, Montreal, Canada, July 2017.
- Conference “Tiling and Recurrence”, CIRM Luminy, Marseille, France, December 2017.
- Conference “52nd Spring Topology and Dynamical Systems Conference”, Auburn University, March 2018.
- Conference “Arithmetic and Analysis”, Münster, Germany, April 2018.
- Conference “Systmes dynamiques et systmes complexes”, Nice, France, June 2018.
- Conference “New trends on Foliated and Stratified Spaces”, Santiago do Compostela, Spain, June 2018.
- Conference “2020 Vision for Dynamics”, Bedlewo, Poland, August 2019.
- Conference “36th Summer Topology Conference”, Vienna, Austria, July 2022.
- Conference “Geometry & Topology - Celebrating Paul Schweitzer’s 85th birthday”, Rio de Janeiro, Brazil, November 2022.
- Conference “Second Australia-China-Japan-Singapore-U.S. Index Theory Conference”, Tokyo, Japan, June 2023.

Talks at AMS Special Sessions

- “Dual homotopy invariants of G-foliations”, Bloomington, IN, April 1980.
- “Ergodic theory and the Weil measure”, East Lansing, MI, November 12 1982.
- “Spectral invariants and the geometry of foliations”, New Orleans, LA, January 1986.
- “Renormalized Chern character for foliations”, Indianapolis, IN, April 1986.
- “Transverse Index and KK-theory for Riemannian Foliations”, San Francisco, CA, January 1991.
- “Exotic index theory and the Baum-Connes Conjecture for foliations”, Springfield, MO, March 1992.
- “Pure point spectrum of foliation operators”, Los Angeles, CA, November 8, 1992.
- “Exotic index and almost flat spectrum”, College Station, TX, October 22, 1993.
- “Exotic theory and the Novikov Conjecture”, Cincinnati, OH, January 14, 1994.
- “Index Theory and Non-commutative Geometry”, San Diego, CA, January 8, 1997.
- “Geometric and Symbolic Dynamical Systems”, San Francisco, CA, October 22-23, 2000.
- “Category of Riemannian Foliations”, Seville, Spain, June 18-21, 2003.
- “Local entropy of foliations and groupoids”, San Antonio, TX, January 12-15, 2006.
- “Markov minimal sets of foliations”, San Francisco, CA, April 29-30, 2006.
- “Solenoidal minimal sets in foliations”, Chicago, IL, October 5-6, 2007.
- “Hyperbolic attractors in foliations”, San Diego, CA, January 6, 2008.
- “Dynamics of Group Actions and their Minimal Sets”, Pucon, Chile, December 18, 2010.
- “Lipshitz matchbox manifolds”, St. Louis, MO, October 19, 2013.
- “Entropy for Y-like matchbox manifolds”, San Antonio, TX, January 12, 2015
- “The Semicentennial Anniversary of University of Illinois at Chicago”, Chicago, IL, October 3, 2015
- “Entropy of the Kuperberg pseudogroup”, Memphis, TN, October 18, 2015
- “Foliation index theory for weak solenoids”, Honolulu, HI, March 24, 2019
- “Classification of weak solenoids”, Denver, CO, January 18, 2020

Talks at Regional Meetings

- “Transverse cyclic Chern characters”, Midwest Topology Conf., Univ. of Chicago, April 1986.
- “The geometry of the foliation index theorem”, invited hour address, A.M.S. Regional Meeting, Lawrence, Kansas, October 1988.
- “Spectral theory of foliation operators”, Conf. on Foliations, College Park, Maryland, September 1989.
- “Topology and spectral theory”, Midwest Topology Conf., Northwestern Univ., March 1990.
- “Rigidity for Anosov actions of higher rank lattices”, Conf. on Geometric Rigidity and Manifolds with Non-positive Curvature, Northwestern Univ., March 1990.
- “Rigidity of $SL(n, \mathbb{Z})$ - action on tori”, Geometry Festival, Eastern Illinois Univ., November 1990.

- “Rigidity for actions of higher rank lattice”, Conference on Geometric Rigidity and Hyperbolic Dynamics, Penn. State University, March 1991.
- “Exotic theory for foliations”, CBMS Meeting on K-Homology and Index Theory, Boulder, CO, August 1991.
- “Exotic cohomology for foliations”, Ohio State Topology Festival, Columbus, November 1991.
- “Dynamical Systems and Related Topics”, Penn. State University, October 18-20, 1995.
- “Midwest Index Theory Conference” UIUC, April 19, 1997.
- “Workshop on Dynamical Systems and Related Topics”, Penn State University, October 26-29, 2000.
- “Larry Fest: Conference in Honor of Larry Conlon”, Washington University St. Louis, April 6-7, 2001.
- Special Session, “General Topology and its Applications”, New York, NY, July 2011
- Plenary Address, “General Topology and its Applications”, New York, NY, July 2011
- “Arboreal Dynamics”, Midwest Topology Conf., Northwestern Univ., November 2021.

Colloquia & Seminars

- U.I.U.C., Differential Geometry Seminar, “Homotopy invariants of a differentiable map”, February 20, 1979.
- U.I.U.C., Differential Geometry Seminar, “ ‘Minimal models’ meets ‘foliations’, I”, April 10, 1979.
- U.I.U.C., Differential Geometry Seminar, “ ‘Minimal models’ meets ‘foliations’, II”, April 17, 1979.
- U.I.U.C., Differential Topology Seminar, “Non-triviality of the Riemannian secondary characteristic classes”, October 9, 1979.
- U.I.U.C., Differential Topology Seminar, “What is $\pi_{1,000,000}(BRI^q)$?”, October 16, 1979.
- U.I.U.C., Differential Topology Seminar, “How to slice a π : Homotopy Koszul resolutions”, October 23, 1979.
- U.I.U.C., Differential Topology Seminar, “A resolution of the homotopy groups of a space”, October 30, 1979.
- U.I.U.C., Differential Topology Seminar, “Detecting free Lie algebras with forms”, November 6, 1979.
- U.I.U.C., Differential Topology Seminar, “Characteristic classes of flat bundles”, February 19, 1980.
- I.A.S., Princeton, Members Seminar, “Deformations of foliations”, January 26, 1981.
- Rutgers University, New Brunswick, Topology Seminar, “Deformations of foliations”, February 24, 1981.
- Yale University, New Haven, Topology Seminar, “Homotopy invariants of foliations”, April 8, 1981.
- I.A.S., Princeton, Topology Seminar, “Exotic characteristic classes for measured foliations”, December 3, 1981.
- Yale Univ., Topology Seminar, “Weil operators and their applications”, June 3, 1982.
- S.U.N.Y., Stony Brook, Colloquium, “Foliation invariants, Weil measures and group actions”, September 29 1982.
- University of Maryland, College Park, Colloquium, “Weil measures and the geometry of foliations”, February 15, 1983.
- University of Pennsylvania, Philadelphia, Colloquium, “Weil measures and the geometry of foliations”, February 17, 1983.
- University of Georgia, Athens, Colloquium, “Weil measures of a foliated manifold”, February 28, 1983.
- I.A.S., Princeton, Topology Seminar, “Weil measures of a foliated manifold”, March 31, 1983.
- U.C.-Berkeley, “The geometry of the Godbillon-Vey classes”, April 1984.
- Washington Univ., Colloquium, “The Sullivan conjecture and ergodic theory of foliations”, October 1984.
- California Institute of Technology, Colloquium, “Secondary invariants and ergodic theory”, March 1985.
- U.C.L.A., Ergodic Theory Seminar, “Cocycles and non-commutative geometry I, II”, March 1985.
- Univ. of North Carolina, Colloquium, “Characteristic classes for dynamical systems”, May 1985.
- M.S.R.I., Differential Geometry Seminar, “Characteristic classes for geodesic flows”, May 1985.
- M.S.R.I., Connes’ Seminar, “The eta-invariant and cyclic cocycles,” May 1985.
- Univ. of Michigan, Topology Seminar, “Eta-invariants and foliation algebras”, September 1985.
- Purdue Univ., Colloquium, “Eta-invariants and foliation algebras”, October 1985.
- Northwestern Univ., Dynamics Seminar, “Symmetry breaking in codimension-one Anosov systems, November 1985.
- Pennsylvania State Univ., Colloquium, “Eta invariants, index theory and foliations”, December 1985.
- Univ. de Lille, Geometry Seminar, “Characteristic classes for dynamical systems”, May 1986 (2 hr. invited talk).
- Univ. de Genève, Geometry Seminar, “Characteristic classes for dynamical systems”, May 1986.
- Mathematical Institute, Oxford, Geometry Seminar, “Secondary invariants and renormalized cyclic cocycles”, June 1986.
- Univ. of Colorado, Colloquium, “Spectral geometry of group actions”, September 1986.
- Univ. of Chicago, Analysis and Physics Seminar, “Spectral invariants for foliations”, October 1986.
- U.I.U.C., “Index theorems and regulators in algebraic K-theory”, November 1986.
- Cal. Inst. Tech, Colloquium, “Analytic invariants for algebraic K-theory”, January 1987.
- Univ. of Notre Dame, Colloquium, “Analytic invariants for algebraic K-theory”, February 1987.
- S.U.N.Y. at Stony Brook, Geometry Seminar, “Analytic invariants for foliations”, March 1987.

- Mathematical Institute, Oxford, Colloquium, “Horocycles and rigidity for surfaces”, April 1987.
- Mathematical Institute, Oxford, Geometry Seminar: (4 talks), “Analysis on foliations”, April-May 1987.
- Freie Universität, Berlin, Geometry Seminar: (4 talks, 2hrs. each), “Homotopy theory of foliations”, June 1987.
- New York Univ. Graduate Center, Sullivan’s Seminar, “Ergodic theory of foliations and a theorem of Sacksteder”, November 1987.
- Univ. of Maryland, Geometry Seminar, “Ergodic theory of smooth actions of groups and foliations”, October 1987.
- New York Univ., Graduate Center, “Ergodic theory of foliations and a theorem of Sacksteder”, November 1987.
- New York Univ., Colloquium, “Fock space representations and rigidity of surfaces”, December 1987.
- S.U.N.Y., Stony Brook, Colloquium, “Toeplitz operators and the rigidity of surfaces”, March 1988.
- Univ. of Southern California, Seminar, “Analysis of foliation Dirac operators”, March 1989.
- California Institute of Technology, Seminar, “Fock space representations and rigidity”, March 1989.
- Univ. of Maryland, Dynamics Seminar, “Rigidity for discrete toral automorphisms”, September 1989.
- Univ. of Colorado, Dynamical Systems Seminar, “Rigidity for $SL(n, \mathbb{Z})$ acting on T^n ”, October 1989.
- Northwestern Univ., Dynamics Seminar, “Deformation rigidity for Anosov actions of higher rank lattices”, January 1990.
- S.U.N.Y., Buffalo, Colloquium, “The rigidity of $SL(n, \mathbb{Z})$ acting on the n -torus”, February 1990.
- Univ. of Chicago, Lie Groups seminar, “Rigidity of actions of lattices”, April 1991.
- S.U.N.Y. Stony Brook, Colloquium, “Rigidity for the integer matrices”, September 1991.
- S.U.N.Y. Stony Brook, Analysis seminar, “Non-commutative isoperimetric theory and spectral density”, September 1991.
- U.I.U.C., Colloquium, “Rigidity for the integer matrices, October 1991.
- Univ. of North Carolina, Chapel Hill, Colloquium, “New results in the rigidity theory of lattice actions”, March 1992.
- Univ. of Michigan, Geometry/Topology Seminar, “Affine actions without fixed-points”, November 16, 1992
- L’Ecole Polytechnique - Paris, “New results in the rigidity theory of lattice actions”, May 20, 1992.
- University do Santiago do Compostela, Colloquium, “Exotic index theory for foliations”, May 15, 1992.
- Humboldt University, Colloquium, “Almost flat spectrum and coarse geometry”, June 9, 1993.
- Humboldt University, Seminar, “Exotic index theory and Novikov Conjecture”, June 11, 1993.
- Minicourse “Coarse Geometry of Foliations”, 3 lectures, Conference on Geometric Study of Foliations, Tokyo, November 1993.
- Université Lyon I, Geometry Seminar, “Course geometry of foliations”, February 11, 1994.
- École Normale Sup. Lyon, Geometry Seminar, “Entropy for leaves of foliations”, February 16, 1994.
- Institut Fourier, Grenoble, Colloquium, “Coarse geometry and the Novikov Conjecture”, February 17, 1994.
- Université Lyon I, Geometry Seminar, “Baum-Connes Conjecture and coarse geometry”, February 18, 1994.
- University of Buffalo, SUNY, Colloquium, “Fine invariants from coarse families”, March 3, 1994.
- University of Buffalo, SUNY, Colloquium, “Spectral entropy (or, dance of the skeleta)”, March 4, 1994.
- University de Bourgogne, Colloquium, “Dynamics and the Godbillon-Vey Classes”, May 19, 1999.
- University of Sheffield, England, Colloquium, “Foliations: at the Crossroads of Geometry and Topology”, November 22, 2000.
- University of Chicago, Geometry Seminar, “Alternatives in 1-dimensional dynamics”, April 19, 2001.
- Facultad de Ingeniería Universidad de la República, Montevideo, Geometry/Dynamics seminar, “Dynamics of actions on the circle”, December 14, 2001.
- Northwestern University, Dynamical Systems Seminar, “Hyperbolic minimal sets”, November 15, 2005.
- University of North Texas, Colloquium, “Foliations - a playground for topology and dynamical systems”, April 14, 2006.
- University of Lodz, Poland, Geometry Seminar, “Solenoidal minimal sets for foliations”, June 14, 2006.
- Minicourse “Dynamics and Analysis of Foliations”, six 2-hour lectures in mini-course, part of trimester program on “Groupoids and stacks in physics and geometry” at Institut Henri Poincare, Paris, France, January–February 2007.
- University of Cologne, Germany, Geometry Seminar, “Local entropy and the Godbillon-Vey Class”, March 13, 2007.
- Utrecht University, Colloquium, “Dynamics of Foliations: classifying foliations by their behavior”, May 10, 2007.
- University of Chicago, Dynamics Seminar, “Classifying foliation dynamics”, November 7, 2007.
- Northwestern University, Dynamical Systems Seminar, “Classifying Foliation Dynamics”, February 2008.
- University of Leicester, Colloquium, “Foliations, Fractals and Cohomology”, February 19, 2009.
- SUNY Buffalo, Colloquium, “Classifying Foliations”, March 26, 2009.
- Minicourse “Dynamics of Foliations”, five 1-hour lectures in mini-course, program on “Foliations: Dynamics-Geometry-Topology”, Centre de Recerca Matemàtica, Barcelona, Spain, May 3–7, 2010.
- Brigham Young University, “Dynamics and matchbox manifolds”, November 14, 2011.

- Université Nice-Sophia Antipolis, France, Dynamical Systems and Geometry Seminar, “Dynamical Invariants of Foliations”, April 10, 2012.
- Université Strassbourg, France, Colloquium, “Dynamical Invariants of Foliations”, October 19, 2012.
- Université Strassbourg, France, “LS category of foliations and Følner properties”, October 22, 2012.
- Université Metz, France, “Index Theory for Foliation Minimal Sets”, October 25, 2012.
- University of Chicago, Dynamics Seminar, “The dynamics of Kuperberg flows”, January 28, 2013.
- Penn. State University, Dynamics Seminar, “The dynamics of Kuperberg flows”, April 24, 2013.
- University of Illinois at Urbana-Champaign, Colloquium, “Foliations - Thurston Zebras to Cantor Geometries”, October 17, 2013.
- Université Strassbourg, France, “Shape and dynamics”, March 31, 2014.
- Depaul University, Colloquium, Chicago, IL “The dynamics of flows in 3-dimensions”, April 8, 2016.
- UNAM, Colloquium, Mexico City, Mexico “The dynamics of flows in 3-dimensions”, April 19, 2016.
- UNAM, Mexico City, Seminar, Mexico “Homeomorphisms of solenoids”, April 21, 2016.
- University of Iowa, Iowa City, IA, Seminar, “Stable Cantor dynamics”, February 18, 2020.
- IUPUI, Indianapolis, Seminar, “Geometry and Dynamics of Solenoids”, October 19, 2020.
- University of Illinois at Chicago, Chicago, IL, Seminar, “Cantor dynamics of renormalizable groups”, March 9, 2020.
- University of Vienna, Vienna, Austria, IL, Seminar, “Cantor dynamics of renormalizable groups”, June 4, 2020.
- University of Tokyo, Tokyo, Japan, Seminar, “Cantor dynamics of renormalizable groups”, June 23, 2020.
- Pontifica University, Rio de Janeiro, Brazil, Resistência Dinâmica Seminar, “The dynamical classification of arboreal actions”, March 12, 2021.
- University of Wisconsin Milwaukee, Milwaukee, WI, Topology Seminar, “Homeomorphisms of solenoidal manifolds”, April 17, 2023.
- Purdue University, West Lafayette, IN, Group Theory Working Seminar, “Applications of the Contraction Mapping Theorem: Circle actions”, April 15, 2024.
- Purdue University, West Lafayette, IN, Group Theory Working Seminar, “Applications of the Contraction Mapping Theorem: Toral actions”, April 16, 2024.
- Purdue University, West Lafayette, IN, Group Theory Working Seminar, “Applications of the Contraction Mapping Theorem: Actions on Cantor sets”, April 17, 2024.

Additionally, approximately 75 talks were given in the seminar “Geometry, Topology and Dynamical Systems” at U.I.C. during the period 1985-2016.

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- (1) Dual homotopy invariants of G -foliations. *Topology*, 20(4):365–387, 1981.
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- (11) The classifying space of smooth foliations. *Illinois J. Math.*, 29(1):108–133, 1985.
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- (14) The Godbillon measure of amenable foliations. *J. Differential Geom.*, 23(3):347–365, 1986.

- (15) (with Dorte Olesen, Iain Raeburn, and Jonathan Rosenberg) The Connes spectrum for actions of abelian groups on continuous-trace algebras. *Ergodic Theory Dynam. Systems*, 6(4):541–560, 1986.
- (16) (with A. Katok) Ergodic theory and Weil measures for foliations. *Ann. of Math. (2)*, 126(2):221–275, 1987.
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- (19) Ergodic theory of foliations and a theorem of Sacksteder. In *Dynamical systems (College Park, MD, 1986–87)*, *Lecture Notes in Math.*, Vol. 1342, Springer, Berlin, 1988, pages 291–328.
- (20) (with R. G. Douglas and J. Kaminker) Eta invariants and von Neumann algebras. *Bull. Amer. Math. Soc. (N.S.)*, 21(1):83–87, 1989.
- (21) Eta invariants and the odd index theorem for coverings. In *Geometric and topological invariants of elliptic operators (Brunswick, ME, 1988)*, *Contemp. Math.*, Vol. 105, Amer. Math. Soc., Providence, RI, 1990, pages 47–82.
- (22) (with D. Lehmann) Homotopy characteristic classes of foliations. *Illinois J. Math.*, 34(3):628–655, 1990.
- (23) (with A. Katok) Differentiability, rigidity and Godbillon-Vey classes for Anosov flows. *Inst. Hautes Études Sci. Publ. Math.*, (72):5–61, 1990.
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