

VITA – Dusa McDuff

BIRTHDATE: October 18, 1945

BIRTHPLACE: London, United Kingdom

DEGREES: B. Sc (Hon), University of Edinburgh, Scotland, 1967

Ph.D., University of Cambridge, England, 1971

PROFESSIONAL EXPERIENCE:

S.R.C. Postdoctoral Fellowship, University of Cambridge, England, 1970-1972

Lecturer, University of York, England, 1972-1976

Lecturer, University of Warwick, England, 1976–1978

Assistant Professor, SUNY at Stony Brook, 1978–1980

Associate Professor, SUNY at Stony Brook, 1980–1984.

Professor, SUNY at Stony Brook, 1984–1998

Distinguished Professor, SUNY at Stony Brook, 1998 – 2008.

Professor Emerita, SUNY at Stony Brook, 2008–

Helen Lyttle Kimmel '42 Chair in Mathematics, Barnard College, 2007 –

VISITING POSITIONS:

Assistant Professor, Department of Mathematics, Massachusetts Institute of Technology, 1974-1975

Member, Institute for Advanced Study, Princeton, Spring 1976, Fall 1977

Member, Mathematical Sciences Research Institute, Berkeley, Fall 1988

Professor, Mathematics Department, University of California at Berkeley, Fall 1993 Member,

Newton Institute, Cambridge UK, Fall 1994

Visiting Professor, Mathematics Department, Harvard University, Fall 2000

Visiting Professor, Courant Institute, NYU, Feb–March 2001

Member, Institute for Advanced Study, Spring 2002.

Eisenbud Chair at Mathematical Sciences Research Institute, Berkeley, CA, Jan - May 2010.

HONORS AND GRANTS:

British Council Scholarship to study in Moscow 1969-1970

Co-principal and principal investigator on NSF summer research grants, 1978–

Co-principal investigator on NSF VIGRE grant, 2000-3

Ruth Lyttle Satter Prize, 1991

UUP Excellence Award, 1991

NSF Visiting Professorship for Women, Fall 1993

Fellow of the Royal Society, 1994

Fellow of the American Academy of Arts and Sciences, 1995

Marker Lecturer at Pennsylvania State University, March 1995

Namoodiri Lecturer at the University of Chicago, April 1996

Outstanding Woman Scientist Award (AWIS), 1997

Honorary Fellowship of Girton College, Cambridge, 1997.

D. Sc. (Hon) University of Edinburgh, 1997.

AWM Noether Lecturer, Jan 1998.

Member of National Academy of Sciences, 1999.

London Mathematical Society Hardy Lecturer, 1999.

D. Sc. (Hon) University of York, 2000.
 Rademacher Lecturer, University of Pennsylvania, Spring 2001
 Andrejewski Lecturer, University of Gottingen, April 2001
 Cairns Lecturer at University of Illinois, Champaign-Urbana, Nov 2004
 Honorary Member of London Mathematical Society (2007)
 Corresponding member of the Royal Society of Edinburgh (2008)
 Honorary Degree from University of Louis Pasteur, Strasbourg (June 2008)
 London Mathematical Society Senior Berwick Prize (2010)
 Member of the American Philosophical Society, (2013).

SERVICE TO THE MATHEMATICAL COMMUNITY:

1978–90 reviewer for Zentralblatt fur Mathematik.
 Co-organizer of Mathematical Sciences Research Institute workshop on Symplectic Topology, September 1988.
 Selection Committee for AMS Centennial Fellowships, 1989-91, Chair 90-91.
 Visiting Committee for Mathematics Department, Harvard, 1989-93.
 1991-1993 Associate editor Journal of AMS, Journal of Geometric Analysis
 Co-organizer of program on Symplectic Topology, Newton Institute, Cambridge, UK, July-December 1994.
 Visiting Committee for Mathematics Department, University of California, Berkeley, 1995.
 On Scientific Advisory Committee of MSRI, 1990-98, Chair of SAC 1993-96.
 Program Committee of AMS, 1991-94.
 Advisory committee to the NSF for a year, and on one or two of their review panels, in mid 1990s
 US National Committee on Mathematics, 1991-93.
 MSRI Board of Trustees, 1998–2002 (Chair 1998-2001), also 2005–
 NRC Commission for Mathematics and Physical Sciences, 1999-2000.
 AMS Colloquium Committee 2001–4.
 NSF Review Panel in Geometry and Topology, March 2005
 Sloan Fellowship Committee for Mathematics, 2005–2011
 NSF Review Panel on Research Training Groups (RTG program), Jan 2006
 Selection committee for the Abel Prize, 2006-8
 Selection committee for the Michler Prize, 2006–2010
 NSF MPS Advisory Committee, 2006-9
 NSF DMS Committee of Visitors, Feb 2007
 AMS Colloquium Publication committee (2007–)
 Oct 08 participated in *Enhancing Diversity in Graduate Mathematics Programs*, MSRI workshop, Berkeley.
 Review committee for Mathematics Department, University of Maryland, March 09.
 Advisory Committee for NCUWM: Nebraska Conference for undergraduate women in Mathematics, meeting March 2010.
 Organizing Committee for the MSRI program of Symplectic and Contact Topology and Geometry, Aug 2009 - May 2010; also helped organize various related workshops (Summer Graduate Program, Introductory Workshop, Connections for Women, March 2010 workshop).
 On the Visiting Committee for the EPSRC International Review of Mathematics in the UK, December 2010.

Member of MSP Scientific Advisory Board of Simons Foundation, 2011–
 on the National Academy of Sciences Class Membership Committee (Section 1), 2013–

PROFESSIONAL SERVICES in Stony Brook:

1982-1984 member Education and Teaching Policy Committee: chaired it during 1983-1984.
 1983-1984 chair of departmental Junior Appointments Committee
 1983-90 member of Long Island Chapter of Association for Women in Science
 (sometime secretary, president).
 1986-1990 member of departmental Appointments Committee.
 1987-89 worked on experimental “Calculus-with-Computers” course, and on
 SINC site committee
 1989-1991 member and then Chair of Honorary Degree Committee, 1994–7
 1989-1991 Associate Chair of Mathematics Department
 1991-1993 Chair of Mathematics Department
 early 1990s on the Undergraduate Project committee chaired by Jim Simons.
 in 1990s: on the President’s Honorary Degree Committee.
 1995-1996 Member of Presidential Coordinating Committee, and on a Task Force
 for the Five Year Plan.
 1994–8 on departmental undergraduate committee with responsibility for Calculus,
 majors and curriculum
 Fall 1998 Mathematics Instructor for Learning Community
 1998-2000 Undergraduate Director of the Mathematics Department.
 1999-2000 member of the Provost’s Mathematics Advisory Committee
 1998-9 Member of the Provost’s Research Advisory Group
 1999-2000 Chair of the President’s Task Force on Academic Excellence.
 Spring 2000 member of the Provost’s committee on the Status of Women
 Spring 2000 Chair of the Coordinating Committee for the five year plan
 c. 1990–2007 on WISE Faculty working group,
 from Fall 2004: on WISE Board of Friends
 2001–7; on Departmental Hiring Committee, Chair’s Advisory Committee.
 from 2003-6: on Provost’s committee to select Distinguished Teaching Professors.

PROFESSIONAL SERVICES in Barnard College:

advising first year students and mathematics majors;
 Fall 2009: Organize and co-teach BC2001: *Perspectives in Mathematics*
 work on the Mathematics department web site.
 help with the Vera Joseph scholars program.

SELECTED INVITED ADDRESSES:

1969-1970 Moscow: Two talks on II_1 -factors, one in Gelfand’s seminar
 and one in Sinai’s seminar.
 Spring 1974 Meeting of London Mathematical Society at Swansea:
 “On configuration spaces”.
 April 1975 Athens, Georgia, conference on Operator Algebras and Topology:
 “On Configuration spaces” (cf publication #10).
 Fall 1977 Topology seminar, I.A.S., Princeton: “Foliations and monoids of embeddings”.

- April 1978 British Mathematical Colloquium at Lancaster:
“On the classifying spaces of discrete monoids”.
- June/July 1979 Warwick, England: Invited speaker at symposium, on foliations and diffeomorphisms, and gave two talks.
- October 1979 Ontario Topology Meeting Hamilton: “The group of diffeomorphisms of \mathbf{R}^n .”
- Summer 1981 Talks in Orsay (Paris), Lausanne (Switzerland) and Warwick (England):
“Foliations and groups of diffeomorphisms”.
- March 1983 Moscow: Gelfand’s Seminar: “Cohomology of groups of volume preserving diffeomorphisms”.
- June 1983 Talk at Arbeitstagung, Bonn: “The Arnold Conjecture on Symplectic Fixed Points”.
- January 1984 Northwestern University: “Symplectic diffeomorphisms and the flux homomorphism”.
- January 1984, University of Illinois at Chicago Circle, “The Arnold conjecture”.
- April 1984 University of Pennsylvania, “Non-Kähler symplectic manifolds”.
- October 1986 MIT: “Examples of symplectic structures”.
- November 1986 Columbia Colloquium: “Recent advances in symplectic geometry”.
- January 1988 AMS Invited Address: “Symplectic Structures on Manifolds”,
AMS Winter Meeting, Atlanta, Georgia.
- November 1988 USC, Los Angeles “Symplectic Structures on Manifolds”.
- November 1988 University of California at Berkeley: “Blowing up and Symplectic 4-manifolds”.
- July 1989 University of Durham, United Kingdom:
“Rational and Ruled Symplectic 4-manifolds”.
- August 1989 Progress in Mathematics Lecture, AMS summer meeting at Boulder:
“Elliptic methods in Symplectic Geometry”.
- December 1989 Midwestern Topology Conference, Ohio State University:
“Blowing up and Symplectic 4-manifolds”.
- January 1990 MSRI, Berkeley in Workshop on Applications of Algebraic Topology:
“Rational and Ruled Symplectic 4-manifolds”.
- February 1990 In “Geometry and Dynamics Day” at Princeton University:
“Rational and Ruled Symplectic 4-manifolds”.
- April 1990 Topology Seminar of the Five Colleges at Smith College, Mass.:
“Recent developments in Symplectic Geometry”.
- April 1990 Mathematics Association of America, Princeton University:
“Recent developments in Symplectic Geometry”.
- July 1990 Invited to Workshop on Symplectic Geometry, Warwick University, U.K.:
Gave series of 4 talks.
- August 1990 Invited Address at International Congress of Mathematics, Kyoto, Japan:
“Symplectic 4-manifolds”.
- October 1990 Montreal University, Columbia University and Princeton University,
“Symplectic 4-manifolds”.
- November 1990 New York University, SUNY Buffalo and Stanford University:
“Symplectic 4-manifolds”
- February 1991 Warwick University, UK and Rice University:
“The Symplectic Camel Problem”.
- April 1991 University of California at Los Angeles, “The Symplectic Camel Problem”.

May 1991 Geometry/Top Conference, Lehigh University.
July 1991: Conference in IRMA, Strasbourg, France, to honor Godbillon-Martinet:
“Immersed spheres in symplectic 4-manifolds”.
October 1991 University of Texas at Austin, “Symplectic 4-manifolds”.
November 1991 Stanford Univ: “Immersed spheres in symplectic 4-manifolds”.
December 1991 Luminy, France, “Recent developments in the symplectic topology of 4-manifolds.”
January 1992 Baltimore (AMS Sectional Meeting): “Symplectic ruled 4-manifolds”.
March 1992 Warwick, United Kingdom: “Symplectic ruled 4-manifolds”.
April 1992 Arkansas Topology Conference: “Symplectic sphere packing”
April 1992 Geometry Conference, NYU: “Symplectic 4-manifolds”.
Sept, 1993 Berkeley Colloquium: “Geometry of Symplectic Energy”
Oct. 1993 Bay Area Symplectic Topology Symp., Stanford University:
“Geometry of Symplectic Energy”
Dec. 1993 International Conference, Tel Aviv, Israel: “Geometry of Symplectic Energy”
March 1994 Celebration of Women in Math, M.I.T.: “Geometry of Symplectic Energy”
April 1994 Symplectic Topology Seminar, Princeton University:
“Geometry of Symplectic Energy”
May 1994 Park City Workshop, IAS Princeton: “Geometry of Symplectic Energy”
July 1994 Newton Institute, Cambridge: Four lectures on Symplectic 4-manifolds
Fall 1994 Talks in Cambridge, York, Edinburgh: “Geometry of Symplectic Energy”
March 1995 Marker Lectures at Pennsylvania State University, State College
May 1995 Symplectic 4-manifolds, Gokova, Turkey
March 1996 Conference to celebrate 250th Anniversary of the founding of Princeton:
“Symplectic Topology and Capacities”
April 1996 Namboodiri Lectures at the University of Chicago, 3 lectures on
“Symplectic 4-manifolds”
May 1996 “From Symplectic deformation to isotopy”, Oberwolfach, Germany.
June 1996 “From Symplectic deformation to isotopy”, Zurich, Switzerland.
June 1996 Plenary address at European Congress, Budapest:
“Recent developments in Symplectic Topology”.
Oct 1996 “The group of symplectomorphisms”, Pacific topology Seminar, Oregon.
Broadcast on the M-bone and then streaming video.
July 1997 “Introduction to Symplectic Topology”, 5 lectures at IAS/Park City
Summer School
Fall 1997 “Topological Rigidity of Hamiltonian Loops and Quantum Homology”, AMS meet-
ings;
Montreal (Sept), Milwaukee (Oct).
Jan 1998 AWM Noether Lecture at AMS winter meeting, Baltimore
“Symplectic Structures - a new approach to geometry”.
Mar 1998 “The Topology of the group of Symplectomorphisms”, Warwick and
Stanford Univ.
June 1998 “The Virtual moduli cycle”, ETH, Zurich
June 1998 “Hamiltonian Fibrations”, Schloss Ringberg, Germany
Aug 1998 “Fibrations in Symplectic Topology”, Plenary address ICM Berlin.

May–June 1999 Hardy lectures at Cambridge, Bath, Nottingham Trent, Belfast, Bangor, Edinburgh, Manchester and London, on various aspects of symplectic geometry.
 Also two talks on Women in Mathematics, in Edinburgh and London.
 July 1999 Plenary Address at the Brazilean Mathematical Congress, Rio de Janiero: “Symplectic Topology Today”
 October 1999 “The topology of the group of symplectomorphisms of $S^2 \times S^2$ ”, NYU.
 Dec 1999 Symplectic Topology Today, CRM 30th anniversary conference, Montreal
 Dec 1999 “The topology of the group of symplectomorphisms of $S^2 \times S^2$,” ETH, Zurich.
 Oct 2000 “Symplectomorphism groups of rational surfaces”, Taubes’ seminar, Harvard.
 Nov 2000 “Measurements in Symplectic Topology”, Basic Notions seminar, Harvard.
 Nov 2000 “The topology of symplectomorphism groups”, MIT colloquium
 Jan-Feb 2001 Four lectures on the Hofer norm, Courant Institute, NYU
 March 2001 Three lectures on Symplectomorphism groups, UC Irvine.
 April 2001 “Variants of the Hofer norm and nonsqueezing”, at CRM workshop Montreal and at the Geometry Festival, Northeastern
 April 2001 “The nonsqueezing theorem,” lecture ETH, Zurich
 June 2001 “Variants of the Hofer norm”, conference in Szechuan, China.
 July 2001: Lectures on symplectomorphism groups, a course at Summer school in Jussieu, Paris.
 March 2002: Lie subgroups of symplectomorphism groups, IAS, Princeton
 April 2002: The topology of symplectomorphism groups, Princeton Univ
 June 2002: The topology of symplectomorphism groups, Oxford, UK
 July 2002: The topology of symplectomorphism groups, ETH, Zurich, Switzerland
 Sept 2002: J -holomorphic curves and dynamics, NYU
 Dec 2002: The topology of symplectomorphism groups (2 lectures), Madison, Wisconsin
 Jan 2003: Lectures on symplectomorphism groups, a course at Winter school in Srni, Czech Republic.
 Jan 2003, May 2003 two lectures at ETH, Zurich
 April 2003; AMS sectional meeting in NYC: “Circle actions on toric manifolds”
 Nov 2003: gave a Leonardo da Vinci lecture in Milan on “Recent developments in Symplectic topology”, also a seminar at the university of Torino.
 March 2004: talked on “Homotopy properties of symplectomorphism groups” at Stanford; “Extending the Flux homomorphism” at MSRI, Berkeley; “Symplectomorphism groups of Toric manifolds” at Tulane University.
 April 2004: gave Grosswalt lectures (series of three) on symplectic topology at Temple University.
 April 2004: Geometry Festival in NYU: Applications of J -holomorphic curves (in honor of Gromov.)
 July 2004; attended conference at Stare Jablonki, Poland, and gave a talk on “Extending the Flux homomorphism”.
 July 2004; attended joint Canadian Math Society and French Math Society meeting in Toulouse, France, and talked on “Symplectomorphism groups of Toric manifolds”
 July 2004 Hodge Centennial conference, Maxwell Institute, Edinburgh: “Comparing symplectic and Kähler manifolds”.
 Sept 2004: NYU/SB joint seminar, NYU “Ono’s proof of the Flux conjecture”

- Nov 2004: two lectures in Montreal; “Enlarging the Hamiltonian group”,
“Topological properties of symplectomorphism groups”
- Nov 2004 Cairns Lectures, three lectures on the topology of symplectomorphism groups,
University of Illinois, Champaign–Urbana.
- Jan 2005; AMS Winter meeting, Atlanta “Recent Developments in Floer theory”,
Current Events seminar.
- Jan 2005; Geometry Seminar and talk to Undergraduates at Duke University,
“Symplectic Geometry and Polytopes”,
“Symplectomorphism groups of Toric manifolds”.
- April 2005; invited address, British Mathematical Colloquium, Liverpool UK,
“Remarks on groups of symplectomorphisms”
- May 05: U Penn, workshop for women in Math and Physics,
“Symplectic Geometry: a meeting ground.”
- May 05: Max Planck Inst, Leipzig “Groupoids and Branched manifolds”,
talk at workshop
- June 05: IAS, Princeton “Groupoids and Branched manifolds”, talk at NSF FRG workshop
(also Oct 05, same title, place)
- September 2005: Hamilton Bicentennial conference, Royal Irish Academy, Dublin, Ireland
“Symplectic Topology today”.
- October 2005: talk at University of York, UK. “Symplectic Topology today”.
- October 05: IAS, Princeton “Groupoids and Branched manifolds”, workshop talk.
- November 2005: Invited address at MAA meeting, Northeastern Section.
“Symplectic Topology today”.
- January 2006: AMS Invited address at Winter Meeting:
“Homotopy properties of Hamiltonian group actions.”
- March 2006: University of Toronto: seminar on
“Homotopy properties of groups of symplectomorphisms”
- March 2006: Lisbon Polytechnic Institute, Portugal: seminar on
“Homotopy properties of groups of symplectomorphisms”
- March 31 2006: Indiana University, Bloomington. Seminar on
“Homotopy properties of groups of symplectomorphisms”.
- April 1 2006: Indiana University, Bloomington. keynote address to a conference of
graduate students on “Symplectic Topology today”
- April 16 Columbia University: seminar on
“Topological properties of groups of symplectomorphisms.”
- April 27 2006: University of Chicago: Colloquium talk arranged by Association of Women
in Mathematics on “Questions in Symplectic geometry”. Also an informal seminar
talk on “Homotopy properties of groups of symplectomorphisms”.
- May 4 2006: University of Columbia conference for John Morgan:
“Homotopy properties of groups of symplectomorphisms”.
- May 24, 2006: MSRI Berkeley Workshop:
“Homotopy properties of groups of symplectomorphisms”.
- July, 2006 Oberwolfach: “Symplectomorphism groups – an introduction”
- Aug 2006, GESTA conference, Getafe, Spain: “Symplectic Characteristic classes”.
- Sept 2006, Univ. Minnesota: IT Distinguished Woman Speaker, Department colloquium:
“What is Symplectic Topology?” and talk at the Yamabe conference

- “Symplectomorphism groups – an introduction”
 Nov 2006, Penn State Univ: seminar on “Symplectic Characteristic classes” and
 Departmental Colloquium on “Symplectomorphism groups – an introduction”.
- Jan 2007, University of Colima, Mexico; talk on “Uniruled manifolds and S^1 actions”
 in Symplectic Field theory conference.
- April-June 2007, talks in Clay Institute at Cambridge MA, BIRS (Banff, Canada),
 Cambridge University, UK, and Stanford University (Conference to honor
 Yasha Eliashberg) on “Uniruled symplectic manifolds”.
- July 2007, AMS conference in Snowbird, UT:
 “Topological properties of symplectic S^1 actions”.
- July 2007, conference at Warwick University, UK:
 “Algebraic properties of symplectomorphism groups”.
- Sept 07, European Women in Mathematics meeting in Cambridge, UK and University of
 York,
 two (different) talks titled “Introduction to symplectic topology”
- Nov 07, seminar at NYU: “Monodromy in Hamiltonian Floer theory.”
- Dec 07, International Congress of Chinese mathematicians, Hangzhou, China,
 Morningside lecture: on “Quantum homology and the Hamiltonian group”;
 also panelist at a forum for women mathematicians.
- Mar 08, Stony Brook, FRG: Hamiltonian S^1 -manifolds are uniruled.
- Mar 08, NY Area Symplectic Geometry Seminar (Columbia),
 Symplectic embedding of 4-dimensional ellipsoids.
- Mar 08, Midwest Symplectic Geometry Conference (IUPUI, Indianapolis),
 Some 6-dimensional symplectic S^1 -manifolds.
- Mar 08, University of Michigan, Quantum homology and Hamiltonian dynamics.
- Apr 08 (MIT) Some 6-dimensional S^1 -manifolds
- Apr 08 (Edinburgh,UK) “Embedding symplectic ellipsoids”,
 a day-long conference to celebrate my becoming an FRSE
- May 2008 Conference of women in mathematics (IAS, Princeton)
 “Embedding symplectic ellipsoids”
- June 2008 two talks in Strasbourg, one in Munster, one in Barcelona.
- Jan 09: workshop talk at Oberwolfach, Germany:
 Toric manifolds in symplectic geometry.
- Feb 09: colloquium talk in Vanderbilt:
 “Introduction to groups of symplectomorphisms”.
- Feb 09: seminar talk in Oxford, UK: on “Some 6-dimensional S^1 -manifolds”.
- Feb 09: Dame Mary Cartwright lecture to London Mathematical Society, London, UK, on
 “Embedding Symplectic ellipsoids”
- Mar 09: Talk to Columbia undergraduate mathematics club: What is symplectic geometry
 – from complex numbers to the camel.
- April 09: Talk to undergraduates at Fordham: Some interesting continued fractions;
- April 09: talk at Atiyah80: Edinburgh, UK, on “Embedding Symplectic ellipsoids”
- May 09: talk at International conference on Topology, Georgia;
 Displacing Lagrangian manifolds via probes
- Jun 09 Takagi lectures, Hokkaido, Japan:
Embedding symplectic ellipsoids and continued fractions.

- Jun 09 Kyoto, Japan: “Displacing Lagrangian submanifolds via probes.”
- Aug 09: Lecture course at Graduate Student Workshop, MSRI on “Embedding problems in 4-dimensional symplectic manifolds;”
- Aug 09: The first two lectures in the Introductory Workshop for SCGT program at MSRI: Introduction and Overview.
- Oct 09: NY Area Symplectic Topology seminar, Columbia University: “Symplectic Embeddings of ellipsoids and continued fractions.”
- Oct 09: Colloquium at Princeton University, plus lunchtime talk to graduate students: on “Symplectic Embeddings of ellipsoids and continued fractions.”
- Nov 09: Horton–Jacobs lecturer at UT Austin: Colloquium talk on “Symplectic embeddings of ellipsoids and continued fractions”; seminar talk and lunch with graduate students.
- Jan 10: MAA invited address at AMS/MAA Winter Joint meetings (on embedding ellipsoids), San Francisco 2010
- Jan 10: Talk in *Connections for Women* workshop at MSRI: Introduction to Floer theory.
- Feb 10: “Symplectic embeddings and continued fractions”, Stanford colloquium.
- Feb 10: talk at MSRI on Monodromy in Hamiltonian Floer theory;
- April 10: Colloquium talk at U Wisconsin: lunch meeting with women faculty/graduate students “Symplectic embeddings and continued fractions”. Also a talk at the Great Lakes Geometry conference “The Topology of symplectic toric manifolds”
- April 26: MSRI Evans Lecture at UC Berkeley: “Symplectic embeddings and continued fractions”; dinner meeting with women faculty/graduate students, April 30.
- April 21, 29: two talks at MSRI: on rational and ruled manifolds, and on the virtual moduli cycle.
- Jun 2010: Leipzig: Ladyshenskaya Lecturer; “Symplectic embeddings and continued fractions”.
- October 2010: Purdue University, colloquium and seminar “Symplectic embeddings and continued fractions”; Constructing the Virtual Moduli cycle”.
- Nov 2010: ETH Zürich: “The Hofer conjecture on Symplectic embeddings”.
- March 2011: Lecture to Columbia Undergraduate Mathematics Society, “Symplectic embeddings and continued fractions”.
- April 2011: Millersville University, PA, “Symplectic embeddings and continued fractions”.
- May 2011: Colloquium and seminar at the University of Montreal.
- September 2011: Association of Iranian Mathematicians international conference, Rafsanjan, Iran: invited address: “Embedding problems in Symplectic geometry,”
- September 2011: Assoc Women in Mathematics 40th anniversary, Brown University: “Introduction to Symplectic geometry,”
- October 2011: IAS, Princeton: “Embedding problems in Symplectic geometry,”
- November 2011: MSRI Chern Centennial Conference: Embedding problems in Symplectic geometry

November 2011: University of British Columbia, Vancouver: colloquium “Embedding problems in Symplectic geometry”, and seminar: Displacing Lagrangian tori with probes.

Mar 2012: Stanford University: Inaugural Beatrice Yormark Distinguished Lecture: “Embedding problems in Symplectic geometry”.

Mar 2012: Institute for Advanced Study: two lectures on Kuranishi structures

Sep 2012: Invited lecture at Regional meeting of AMS, RIT, Rochester; organized special session

Jan 2013: Colloquium talk at Swarthmore College

Feb 2013: Gave Whiteman lectures at USC, Los Angeles: Embedding problems in Symplectic topology

Feb 2013: Colloquium talk at Bronx Community College

Mar 2013: Seminar Talk at MIT, Boston: on Kuranishi atlases

April 2013: 30 minute talk in Mathematics and Simplicity Conference, CUNY. Also participated in panel discussion

May 2013: invited talk at Symplectic Topology workshop, CRM, Montreal, Canada

May 2013: invited talk at Arbeitstagung, Bonn, Germany

June 2013: invited talk at D-Days, ETH, Zurich, Switzerland

June 2013: keynote speaker at Young Researchers in Mathematics 2013, ICRM, Edinburgh, Scotland

Aug 2013: two talks in special sessions of Mathematical Congress of the Americas MCA2013, Guanajuato, Mexico

THESIS STUDENTS:

Francisca Mascaro (1980); Ira Moskowitz (1983); Alan Horwitz (1988); Eleonora Ciriza (1989); Brian Kasper (1990); Lisa Traynor (1992); Alan McRae (1994); Gang Liu and Simon Richard (1995); Wladyslaw Lorek (1996); Jennifer Slimowitz (1998); Leonor Godinho, Haydee Herrera-Guzman, Luisa Stelling (1999); Silvia Anjos (2000); Olga Buse (2002); Mark Barsamian (2002); Eduardo Gonzalez (2005); Zhigang Han (2006); Je-wei (Alex) Chen (2007); Emiko Dupont (2007); Yakov Savelyev (2008); Michael Chance (2009); Mark Branson (2010); Andre Carvalho (2013); Andrew Fanoe (2013)

PUBLICATIONS

1. A countable infinity of II_1 -factors, *Ann. Math.*, 90 (1969), 361-371.
2. Uncountably many II_1 -factors, *Ann. Math.*, 90 (1969), 372-377.
3. Central Sequences and the hyperfinite factor, *Proc. L.M.S.*(3) 21 (1970), 443-461.
4. On the structure of II_1 factors, *Uspekhi Math Nauk* 25 (1970), 29-51 (in Russian).
5. (with E. Hewitt), Certain pathological maximal ideals in algebras of operators, *Math Sbornik*, (NS) 83 (125) (1970), 527-546 (in Russian).
6. On residual sequences in a II_1 factors, *J. London M.S.* (2) 3 (1971), 273-280.
7. Configuration spaces of positive and negative particles, *Topology* 14 (1975), 91-107.
8. (with G. Segal), Homology fibrations and the “Group-Completion” theorem, *Invent. Math.*, 31 (1976), 279-284.
9. Configuration spaces, in K-theory and operator algebras, Athens, Georgia (1975), ed. Morrel and Singer, Springer Lecture Notes 575 (1977).
10. On the lattice of normal subgroups of the group of automorphisms of an open manifold, *Journal of the London Math. Soc.*, (2) 18 (1978), 353-364.

11. Foliations and monoids of embeddings, in *Geometric Topology*, ed. J. Cantrell, Academic Press (1979), 429-444.
12. On the classifying spaces of discrete monoids, *Topology* 18 (1979), 313-320.
13. The homology of some groups of diffeomorphisms, *Comm. Math. Helv.*, 55 (1980), 97-129.
14. On the group of volume preserving diffeomorphisms of \mathbf{R}^n , *Trans. Amer. Math. Soc.*, 261 (1980), 103-113.
15. C^1 -minimal subsets of the circle, *Ann. Inst. Fourier* (1981), 177-193.
16. On groups of volume-preserving diffeomorphisms and foliations with transverse volume form, *Proc. London Math. Soc.* (3) 43 (1981), 295-320.
17. On tangle complexes and volume preserving diffeomorphisms of open 3-manifolds, *Proc. London Math. Soc.*, (3) 43 (1981) 321-333.
18. Some canonical cohomology classes of groups of volume preserving diffeomorphisms, *Trans. Amer. Math. Soc.*, 275 (1983) 345-356.
19. Local homology of groups of volume-preserving diffeomorphisms, I, *Ann. Ec. Norm. Sup.*, 15 (1982) 609-648.
20. Local homology of groups of volume-preserving diffeomorphisms, II, *Comm. Math. Helv.*, 58 (1983), 135-165.
21. Local homology of groups of volume-preserving diffeomorphisms, III, *Ann. Ec. Norm. Sup.*, 16 (1983), 529-540.
22. (with P. de la Harpe), Acyclic groups of automorphisms, *Comm. Math. Helv.*, 58 (1983), 48-71.
23. Symplectic diffeomorphisms and the flux homomorphism, *Inventiones Math.*, 77 (1984), 353-366.
24. Examples of simply-connected symplectic non-Kählerian manifolds, *Journal of Diff. Geom.*, 20 (1984), 267-277.
25. Remarks on the homotopy type of groups of symplectic diffeomorphisms, *Proc. Amer. Math. Soc.*, 94 (1985), 348-352.
26. Applications of convex integration to symplectic and contact geometry, *Ann. Math. Inst. Fourier* 37 (1987) 107-133.
27. Examples of symplectic structures, *Invent. Math.*, 89 (1987), 13-36.
28. Symplectic structures on \mathbf{R}^n , in *Seminaire Sud-Rhodanien de Geometrie, Lyon (1986)*, Travaux en Cours, Hermann Paris (1987).
29. The symplectic structures of Kähler manifolds of non-positive curvature, *J. Diff. Geom.* 28 (1988), 467-475.
30. The moment map for circle actions on symplectic manifolds, *Journal of Geometry and Physics* 5, (1988), 149-160.
31. Rational and Ruled Symplectic 4-manifolds, in *Proceedings of conference in Durham, England*, ed. Donaldson and Thomas, CUP, Cambridge, (1990).
32. The Structure of Rational and Ruled Symplectic 4-manifolds, *Journal A.M.S.* 3 (1990), 679-712. Erratum *Journ AMS* 5 (1992), 987-988.
33. Elliptic Methods in Symplectic Geometry, *Bull. A.M.S.* 23, (1990), 311-358.
34. Blow ups and symplectic embeddings in dimension 4, *Topology*, 30 (1991), 409-421.
35. The Local Behavior of Holomorphic curves in almost complex 4-manifolds, *Journ. Diff. Geo.*, 34 (1991), 143-164.

36. Symplectic manifolds with Contact-Type boundaries, *Inventiones Math.*, 103 (1991) 651-671.
37. Symplectic 4-manifolds, in *Proceedings of ICM*, Kyoto, 1990, Springer Verlag (1991).
38. Immersed spheres in symplectic 4-manifolds, *l'Annales de L'Inst Fourier*, 42 (1991), 369-392.
39. Singularities of J-holomorphic curves in almost complex 4-manifolds, *Journ. Geom. Analysis* 3 (1992), 249-266.
40. Remarks on the uniqueness of symplectic blowing up, in *Symplectic Geometry* ed. Salamon, LMS Lecture Notes #192, Cambridge Univ. Press (1993), 157-168.
41. (with L. Traynor) The 4-dimensional symplectic camel and related results, in *Symplectic Geometry* ed. Salamon, LMS Lecture Notes #192, Cambridge Univ. Press (1993), 169-182.
42. Notes on Ruled symplectic 4-manifolds, *Trans. Amer. Math. Soc.* 345 (1994), 623-639.
43. Singularities and positivity of intersections of J-holomorphic curves, in *Holomorphic Curves in Symplectic Geometry* ed. Audin and Lafontaine, Progress in Math 117, Birkhäuser (1994), 191-216.
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