

Curriculum Vitae¹

Hofer, Helmut

Institute for Advanced Study

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Citizenship: German and US

Education: Fichte-Gymnasium Krefeld (FRG), 1966-74
Diplom in Mathematics, Univ. of Zürich, 1979
Ph.D., University of Zürich, 1981

Positions:

- Asst. in Mathematics, Univ. of Zürich, 1979-81
- Oberassistent, Univ. of Zürich, 1981-82
- Lecturer in Pure Mathematics, Univ. of Bath, 1983-85
- Asst. Professor, Rutgers University, 1985-87
- Associate Professor, Rutgers University, 1987-88
- Professor, Rutgers University, 1988-89
- C4-Professor, Bochum, 1989-1993 (Dekan 1992-1993)
- Professor, ETH Zürich, 1993-1997
- Professor, Courant Institute, 1997-2006
- Silver Professor, Courant Institute, 2006–2009
- Professor, Institute for Advanced Study, July 1st, 2009–2019
- Hermann Weyl Professor, Institute for Advanced Study, 2019–
- Visiting Lecturer with rank of Professor, Princeton University, 2013–

Visiting Positions:

- Visiting Associate Professor, Paris Dauphine, Jan.-May 1985
- Visiting Professor, Paris-Dauphine, June 1987
- Member, Institute for Advanced Study, Princeton, Fall 1987
- Visiting Member, New York University, Spring 1988
- Visiting Professor, Paris Dauphine, June 1988
- Visiting Member, MSRI, Berkeley, September 1988
- Visiting Member, New York University, Oct.-Nov. 1988
- Visiting Professor, Paris-Dauphine, June 1989
- Visiting Professor, Paris-Dauphine, July 1990
- Visiting Member, New York University, March 1990

¹December 8th, 2021

- Visiting Professor, Institute Henri Poincare, March-April 1994
- Visiting Member, Isaac Newton Institute, July and September 1994
- Visiting Professor, Princeton University, Fall 2000
- Member, Institute for Advanced Study, Princeton, 2001/2002 and Clay Mathematical Institute Scholar, Fall Semester 2001/2002
- Distinguished Visiting Professor, Penn State, January 2005
- Member, Institute for Advanced Study, Princeton, Fall 2005
- Distinguished Visiting Professor, Penn State, January 2006
- Distinguished Visiting Professor, Penn State, January 2007
- Visiting Professor, Stanford, January-June 2008
- Distinguished Visiting Professor, Penn State, January 2009 and March 2009
- Chern Visiting Professor, Berkeley, April 2010
- Aisenstadt Chair, Montreal, May 2013
- Research Professor, MSRI, Berkeley, April 2018

Grants

- NSF Grant, 1986-1989
- Rutgers University Trustees Research Fellowship Grant, spring 1986 and 1987-88
- DAAD Procope 1991- 1992
- Two projects in the Sonderforschungsbereich 237, 1991-1993
- TH-project (jointly with E. Zehnder), 1994-1996
- TH-project (jointly with E. Zehnder), 1996-1998
- NSF-VIGRE Grant, 1999-2005
- NSF Grant, 1998-2014
- PI, NSF-Institutes grant, 2012-2020
- Co-PI, NSF-Institutes grant, 2021-2025

Special Awards, Prizes etc.

- Alfred P. Sloan Fellowship, 1987-1989
- The 1999 Ostrowski Prize
- Member National Academy of Sciences, since 2008
- Member Academia Europaea (Foreign Associate), since 2008
- Member German National Academy of Sciences Leopoldina, since 2010
- Fellow of the American Mathematical Society, since 2012
- 2013 Heinz Hopf Prize
- Member of the American Academy of Arts and Sciences, since 2020

Special Invited Lectures:

- Invited Speaker International Congress, Kyoto (ICM) 1990
- Plenary Speaker German Mathematical Society, Berlin, September 1992
- Plenary Speaker Joint Meeting AMS/DMV, Heidelberg, October 1993
- Plenary Speaker Annual Meeting of the London Mathematical Society, October 1993
- Invited Speaker Geometries in Interaction, Tel Aviv, December 1993
- The 1995 Raymond and Beverly Sackler Distinguished Lectures in Pure Mathematics, Tel Aviv University, October 1995
- Invited Speaker, TAG Aarhus, Aarhus 1998
- Plenary Speaker International Congress, Berlin (ICM) 1998
- AMS Colloquium Lecturer, San Antonio, AMS Annual Meeting 1999
- Invited Speaker, Visions in Mathematics , Towards 2000, Tel Aviv 1999
- Invited Speaker, Mathematical Challenges of the 21st Century, Los Angeles 2000
- Stieltje Colloquium Lecturer, Leiden, September 2000
- Plenary Speaker, Fifth International Joint Meeting AMS and SMM, Morelia 2001
- Plenary Speaker, Georgia Topology Conference, Athens 2001
- Plenary Speaker, 23rd Brazilian Mathematical Colloquium, Rio 2001
- 2003 Hopf-Lectures, Zurich
- Lezioni Leonardesche, Milano 2004
- D'Atri Lectures, Rutgers 2004
- CDM-Lectures, Harvard 2004
- Lecture Series, SFT Workshop, Leipzig 2005
- Distinguished Lecture Series, Madison 2006
- Pacific Institute of Mathematics, 10th Anniversary Lecture, Vancouver 2006
- 2008 Clay Research Conference, May 2008
- 2011 Blumenthal Lectures, Tel Aviv, May 2011
- 2011 Landau Lectures, Hebrew University, June 2011
- Festive Colloquium on the occasion of the opening of the Floer Center for Geometry, Bochum, December 2011

- At the Interface of Dynamics and Symplectic Geometry, University of Leipzig, Opening of the Felix Klein Colleg, October 2012
- Aisenstadt Lectures, CRM Montreal, April and May 2013
- Distinguished Lecture in Topology, Dynamics and Physics (TIDY), Tel Aviv, March 2014
- Speaker, Geometric Dynamics Days, Bochum, January 2017
- Plenary Lecture, Georgia Topology Conference, Athens, May 2017
- Distinguished Lecture, UConn Geometry Day, March 2020

Organisation of Conferences:

- Conference on Dynamical Systems (jointly with J. Moser and E. Zehnder), Oberwolfach, July 1993
- Conference on Dynamical Systems (jointly with J. Moser and E. Zehnder), Oberwolfach, July 1995
- Conference on Symplectic Topology and Three- and Four-Dimensional Topology (jointly with S. Donaldson, M. Gromov and E. Zehnder), Ascona, July 1996
- Conference on Geometry and Variational Problems (jointly with J. Jost), Schloss Ringberg, June 1998
- Conference on Dynamical Systems (jointly with J.C. Yoccoz and E. Zehnder), Oberwolfach, July 1999
- Conference on Dynamical Systems (jointly with J.C. Yoccoz and E. Zehnder), Oberwolfach, July 2001
- Georgia Topology Conference (Scientific Board), Athens, June 2001
- Moser Memorial Conference (jointly with M. Burger), Zurich, June 2001
- Conference on Dynamical Systems (jointly with J.C. Yoccoz and E. Zehnder), Oberwolfach, July 2003
- Workshop on Symplectic Geometry and Mathematical Physics, MSRI (jointly with D. Auroux, D. Freed, G. Tian), March 2004
- Geometry Festival, Courant (jointly with S. Cappell and T. Colding), May 2004
- Workshop on Symplectic Field Theory (jointly with K. Cieliebak, D. McDuff, K. Mohnke, and M. Schwarz), Leipzig, June 2005.
- Conference on Dynamical Systems (jointly with J.C. Yoccoz and E. Zehnder), Oberwolfach, July 2005
- Workshop on Symplectic Geometry (jointly with Y. Eliashberg, J. Milnor and D. Salamon), Banff, December 2005

- Conference on Dynamical Systems (jointly with K. Eliasson and J.C. Yoccoz), Oberwolfach, July 2007
- MSRI Hot-Topic workshop (jointly with M. Hutchings, P. Kronheimer, T. Mrowka and C. Taubes), June 2008
- Conference on Dynamical Systems (jointly with K. Eliasson and J.C. Yoccoz), Oberwolfach, July 2009
- Symplectic and contact topology and dynamics: puzzles and horizons (jointly with P. Biran, J. Etnyre, D. McDuff , and L. Polterovich), March 2010.
- Workshop in Sheaf-theoretic Methods in Symplectic Topology (jointly with C. Viterbo), IAS, May 2011
- Conference on Dynamical Systems (jointly with K. Eliasson and J.C. Yoccoz), Oberwolfach, July 2011
- Conference on Symplectic Dynamics (jointly with J. Mather), IAS, October 2011
- Conference on Symplectic Dynamics (jointly with J. Mather), IAS, March 2012
- Bismut-Fest, member of the scientific advisory committee, Paris, May 2013
- D-Days, a conference on the occasion of D. Salamon's 60th birthday (jointly with P. Biran and L. Polterovich), ETHZ, June 2013
- Conference on Dynamical Systems (jointly with K. Eliasson and J.C. Yoccoz), Oberwolfach, July 2013
- A Legacy of V. Arnold (jointly with Bierstone, Khesin, Khovan-skii, Tabachnikov and Varchenko), Fields Institute, November 2014
- Conference on Dynamical Systems (jointly with K. Eliasson and J.C. Yoccoz), Oberwolfach, July 2015
- ASSAf/Leopoldina-Symposium, Stellenbosch, South Africa, March 2016
- Summer school on symplectic topology, sheaves and mirror symmetry (jointly with V. Humiliere, A. Oancea, P. Schapira, C. Viterbo) , Paris, June 2016
- Analysis, Dynamics, and Symplectic Geometry: a conference in memory of Kris Wysocki (jointly with A. Katok), State College, April 2017
- Conference on Dynamical Systems (jointly with K. Eliasson and J.C. Yoccoz), Oberwolfach, July 2017
- Mather's Memorial Conference (jointly with M. Goresky, V. Kaloshin, Y. Sinai and A. Sorrentino), Princeton, October 2018

- C^0 -aspects of symplectic geometry and Hamiltonian dynamics (jointly with L. Buhovski, V. Humiliere, L. Polterovich and S. Seyfaddini), Technion Haifa, May 2019
- Honoring the Life and Work of Jean Bourgain (jointly with P. Sarnak), Princeton, May 2019
- Conference on Dynamical Systems (jointly with M.-C. Arnaud and V. Kaloshin), Oberwolfach, July 2019
- Conference on Dynamical Systems (jointly with M.-C. Arnaud, M. Hutchings, and V. Kaloshin), Oberwolfach, July 2021

Other Activities:

- Head of the committee for organizing the "Nachdiplomvorlesungen" (ETHZ 1995-1997)
- Member of the committee for organizing the "Wolfgang Pauli Lectures" (ETHZ 1996-1997)
- Member of the "Unterrichtskommission" (ETHZ 1995-1997)
- Evaluation Committee of the Center for Mathematics at the Ecole Polytechnique, Paliseau France, 1995.
- Evaluation Committee of the Mathematics Departments of the three Universities at Berlin, 1996.
- Chairman of the Scientific Advisory Board, Max-Planck-Institute for Mathematics in the Sciences, MIS Leipzig (1999-2011).
- Member of the Fields Medal Committee for the ICM 2002, Beijing.
- Member of the steering committee of BIRS (Banff International Research Station) (2003-2005).
- Scientific Advisory Committee (SAC) of the MSRI Berkeley (2005-2009; co-chair of the SAC, from March, 2006).
- The Faculty Advisory Committee on Academic Priorities at NYU, 2006-2008.
- Steering Committee Park City Mathematical Institute, 2009-2018.
- Member of the Scientific and Strategic International Committee of the Collège de France 2012-2016.

Former Ph.D. students:

- M. Schwarz, ETH Zürich 1995, Cohomology Operations from S^1 -Cobordisms in Floer Homology
- K. Cieliebak, ETH Zürich 1996, Symplectic boundaries: Closed characteristics and action spectra
- C. Abbas, ETH Zürich 1997, Asymptotic behaviour of pseudo-holomorphic half-planes in symplectisations

- T. Linnemann, ETH Zürich 1997, Generalized fixed points on strictly convex hyper surfaces
- M. Kriener, ETH Zürich 1997, An intersection formula for finite energy half-cylinders
- B. Gratzia, ETH Zürich 1998, Piecewise linear approximations in symplectic geometry
- A. Göing, ETH Zürich 1998, Parameter estimation in financial models and numerical analysis in hamiltonian dynamics
- M. Andenmatten, Courant Institute 1998, The Weinstein conjecture and holomorphic curves in higher dimensions
- D. Dragnev, Courant Institute 2003, Fredholm theory and transversality for noncompact pseudoholomorphic curves in symplectizations
- E. Neduv, Columbia University 2003, Symplectic capacities and periodic solutions in Hamiltonian systems
- E. Mora, Courant Institute 2003, Pseudoholomorphic cylinders in symplectisations
- Chris Wendl, Courant Institute 2004, Finite energy foliations and surgery on transverse links
- Richard Siefring, Courant Institute 2005, Intersection Theory of Finite Energy Surfaces
- Sam Lisi, Courant Institute 2005, Applications of Symplectic Geometry to Hamiltonian Mechanics
- Joel Fish, Courant Institute 2007, Compactness Results for Pseudoholomorphic Curves
- Sunil Pinnamaneni, Courant Institute December 2007, A Compendium of Pseudoholomorphic Curves in $\mathbf{R} \times \Gamma \backslash G$
- Umberto Hryniewicz, Courant Institute April 2008, Finite Energy Foliations for Convex Sets in \mathbf{R}^4
- Barney Bramham, Courant Institute April 2008, Pseudoholomorphic Foliations for Area Preserving Disc Maps
- Al Momin, Courant Institute September 2008, Intersection Theory in 3-dimensional Linearized Contact Homology
- Dingyu Yang, Courant Institute November 2013, A Choice-independent Theory of Kuranishi Structures and the Polyfold Kuranishi Correspondence.
- Michael Jemison, Princeton November 2019, Polyfolds of Lagrangian Floer Theory in All Genera.

Current Ph.D. students:

- R. Prasad, Princeton University

Editorial Activities:

- Editorial board of “Communications in Pure and Applied Mathematics” 1997-2009
- Editorial Board of “Inventiones Mathematicae” 2007-2019, Managing Editor 2008- 2019
- Editorial Board of “Duke Mathematical Journal” till 2007
- Editorial Board of ”Journal of the European Mathematical Society” 1999-2007
- Editorial Board of ”Journal of Differential Equations” till 2007
- Editorial Board of ”Journal of Symplectic Geometry” 2001-2007
- Editorial Board of EMS Monographs in Mathematics till 2016
- Associate Editor of “Monographs in Mathematics”, Birkhäuser
- Editorial Board of “International Mathematical Research Notes” (till 2006)
- Editorial Board of “Geometric and Functional Analysis” (1991-2001)
- Editorial Board of ”Pacific Journal of Mathematics” (till 2001)
- Editorial Board of “Nonlinear Differential Equations and Applications” (1994-2001)
- Managing Editor Lectures in Mathematics, ETH Zurich, Birkhauser (1993-1997)
- Editorial Board of “Nonlinearity” (till January 1997)
- Editorial Board of the Virtual Symplectic Series, Springer Publishing, 2018–

Memberships

- American Mathematical Society

Talks

Conferences:

- (1) Multiplicity of solutions for a wave equation problem, Math. Research Inst., Oberwolfach, Dec. 1979
- (2) Multiplizitätsfragen für eine Klasse nichtlinearer Probleme, Annual Mtg. Swiss Math. Soc., Lausanne, Feb. 1980
- (3) Multiple solutions for a wave equation at resonance, Conf. on Nonlinear Funct. Anal. and Fixed Point Theory, Cosenza, Apr. 1981
- (4) A variational approach to a wave equation problem, Metodi asintotici e topologici in problemi differenziali non lineari, L’Aquila, May 1981

- (5) A wave equation problem at resonance, Nonlinear Analysis, Trieste, April 1981
- (6) Variationsmethoden Annual Mtg. Swiss Math. Soc, Neuchatel, Feb. 1981
- (7) Variational methods and a wave equation problem at resonance, Equadiff, Bratislava, August 1981
- (8) Variational methods and a wave equation problem at resonance, Conf. on Multiple Solutions for Nonlinear Problems, Univ. of Brussels, Feb. 1982
- (9) Variational and topological methods in partially ordered Hilbert spaces, Conf. on Multiple Solutions for Nonlinear Problems, Univ. Louvain-La-Neuve, Feb. 1982
- (10) Morse theory and differential equations, Conf. on Nonlinear Equations, Univ. of Bath, June 1983
- (11) Variational and topological methods in partially ordered Hilbert spaces, AMS Summer Inst. on Nonlinear Functional Analysis, Berkeley, July 1983
- (12) Solutions of prescribed minimal period for convex Hamiltonian systems, Conf. on Nonlinear Eigenvalue Problems, Math. Res. Inst., Oberwolfach, May 1984
- (13) Solutions with prescribed minimal period for convex Hamiltonian systems, Conf. on Nonlinear Funct. Anal., Math. Research Inst., Oberwolfach, June 1984
- (14) Solutions with prescribed minimal period for convex Hamiltonian systems, Conf. on Bifurcation Theory and Appl., Durham, July 1984
- (15) Lagrangian intersections and critical point theory, Conf. on Nonlinear Problems, Numerical Methods and Related Topics, Math. Research Inst., Oberwolfach, May 1985
- (16) Global and local invariants for convex Hamiltonian energy surfaces, NATO Advanced Research Workshop on Periodic Solutions of Hamiltonian Systems and Related Topics, Il Ciocco, Italy, October 1986
- (17) Invariants for convex energy surfaces and their periodic Hamiltonian trajectories, Special Session AMS Annual Meeting, San Antonio, January 1987
- (18) Convex Hamiltonian energy surfaces and their periodic trajectories, Special Session AMS Regional Meeting, Newark, April 1987
- (19) Symplectic topology, 4 lectures, International Centre for Theoretical Physics, Trieste, January 1988

- (20) Periodic solutions of Hamiltonian systems as symplectic invariants, Conf. on Variational Methods, Paris, June 1988
- (21) Symplectic capacities and Hamiltonian dynamics, Conf. on Dynamical Systems, Brown University, August 1988
- (22) Symplectic capacities, 2 lectures, Workshop on Symplectic Topology, MSRI Berkeley, August 1988
- (23) Topological properties of symplectic maps, Durham Conf. on Low-Dimensional Topology, July 1989
- (24) Symplectic capacities and dynamical systems, Oberwolfach, Conf. on Dynamical Systems, July 1989
- (25) Homoclinic orbits for Hamiltonian systems and first order elliptic systems, Gregynog Conference on Reaction-Diffusion Equations, August 1989
- (26) Topological properties of Symplectic maps, Workshop on Variational Methods, L'Aquila, January 1990
- (27) Holomorphic curves in Symplectic geometry, Workshop on Hamiltonian Mechanics and Complex Manifolds, Universität Bochum, December 1989
- (28) Topological properties of Symplectic maps, Conf. on Nonlinear Analysis in honour of Felix Browder, Rutgers University, May 1990
- (29) Symplectic invariants, Conference on Dynamical Systems, Lyon, July 1990
- (30) Symplectic invariants, 2 lectures, Workshop on Symplectic Geometry, Warwick, August 1990
- (31) Symplectic invariants, International Congress of Mathematics, Kyoto, August 1990
- (32) Recent developments in symplectic geometry, 2 lectures, Conference on Partial Differential Equations, Oberwolfach, May 1991
- (33) Hamiltonian dynamics and new invariants in phase space, Conf. on "The Mathematics of Nonlinear Systems", Bath, July 1991
- (34) New symplectic invariants (2 lectures), Workshop on Symplectic Geometry, Basel, January 1992
- (35) Geometry on the group of symplectic diffeomorphisms, Warwick, April 1992
- (36) Pseudoholomorphic curves and the Weinstein conjecture, Basel 1992
- (37) Neue symplektische Invarianten, Plenarvortrag DMV Jahresversammlung Berlin, September 1992

- (38) Holomorphic curves in symplectic and contact geometry, Plenary lecture AMS-DMV Joint Meeting Heidelberg, October 1993
- (39) Holomorphic curves in contact geometry, Plenary lecture Annual Meeting LMS London, October 1993
- (40) Pseudoholomorphic curves in contact geometry, Plenary lecture “Geometries in Interaction”, Tel Aviv, December 1993
- (41) Pseudoholomorphic curves and global questions in contact geometry, SFB 288 Conference, March 1994
- (42) Holomorphic curves in symplectisations, IHP Paris, March and April 1994, 14 Lectures
- (43) Holomorphic curves and global questions in contact geometry, Isaac Newton Institute Cambridge, July 1994, 8 lectures
- (44) Symplectic Homology, Isaac Newton Institute Cambridge, October 1994, 6 lectures
- (45) Contact structures, variational principles and three-manifold geometry, Conference on Variational Methods and Partial Differential Equations, Schloss Ringberg am Tegernsee, June 1995
- (46) Contact structures and dynamics, Workshop on Geometry, Topology and Dynamics, University of Montreal, June 1995
- (47) Contact structures and dynamics, Abschiedskolloquium für J. Moser, ETH Zurich, July 1995
- (48) Dynamics in dimension three, Oberwolfach, July 1995
- (49) A characterisation of the tight three-sphere, Conference on Geometric Groups and Bounded Topology, Schloss Ringberg, January 1996
- (50) Pseudoholomorphic curves in symplectisations, Workshop on Geometry, Academia Sinica, Taipei, April 1996
- (51) A characterisation of the tight three-sphere, Workshop on Geometry, Academia Sinica, Taipei, April 1996
- (52) The dynamics on convex energy surfaces, Workshop on Geometry, Academia Sinica, Taipei, April 1996
- (53) Holomorphic curves and dynamics on three-manifolds, Conference in honour of P. Lax and L. Nirenberg, Florence, Juni 1996
- (54) Holomorphic curves and three-manifolds, Conference on Cohomology of moduli spaces, Oberwolfach, September 1996
- (55) Holomorphic curves and dynamics, 5 lectures, University of Freiburg, September 1996
- (56) Reeb dynamics on tight three-spheres, Workshop on Differential Geometry, Max Planck Institute Leipzig, November 1996

- (57) Holomorphic curves and low-dimensional topology and dynamics, Workshop on symplectic geometry, 3 lectures, Les Diablerets, March 1997
- (58) Holomorphic curves in symplectisations, AMS Summer Institute, IAS/Park City, 5 lectures, Park City (Utah), July 1997
- (59) The dynamics on convex energy surfaces and holomorphic curves, Workshop accompanying the Clifford Lectures, Tulane University, October 1997
- (60) Three-dimensional dynamical systems and the construction of global systems of surfaces of section, Duke Mathematical Journal and IMRN conference, Duke University, April 1998
- (61) Holomorphic curves and dynamics in dimension three, Southeast Geometry Conference, University of Georgia at Athens, May 1998
- (62) Dynamics, Holomorphic Curves and Steady Euler Flows, Conference on Mathematics in the Sciences, Leipzig (Germany), June 1998
- (63) Dynamics, Topology and Holomorphic Curves, Conference on Topology and Dynamics, Aarhus August 1998, Plenary Lecture
- (64) Dynamics, Topology and Holomorphic Curves, ICM Berlin, August 1998, Plenary Lecture
- (65) The role of energy in symplectic geometry, Conference on Geometry and Topology, Austin, October 1998
- (66) Contact structures and holomorphic curves, Topology and Geometry Conference, Ohio State Columbus, December 1998
- (67) Holomorphic curves and three-dimensional dynamics, Conference of the National Academy of Sciences, Irvine, January 1999
- (68) Symplectic geometry from a dynamical systems point view, Colloquium Lectures (three talks), Annual Meeting of the AMS in San Antonio, January 1999
- (69) Global systems of surfaces of section, Annual Meeting of the AMS in San Antonio, January 1999
- (70) From Hamiltonian dynamics to holomorphic curves, JAMI Conference, Johns Hopkins, March 1999
- (71) Holomorphic Curves and Contact Geometry, Geometry Festival, UPenn, April 1999
- (72) Dynamical systems at the interface of symplectic geometry and three-dimensional topology, Mathematical Challenges of the 21st Century, Los Angeles, August 2000.
- (73) Introduction to symplectic field theory, Conference on Nonlinear Analysis and Dynamical Systems, Leiden, September 2000

- (74) Introduction to symplectic field theory, Edi-Fest, Zürich, November 2000
- (75) Periodic Orbits, Holomorphic Curves and Algebraic Invariants, AMS-SMM Joint Meeting, Morelia, June 2001
- (76) Symplectic Challenges, Georgia Topology Conference, Athens, June 2001
- (77) Symplectic Challenges, Moser Memorial Conference, Zürich, June 2001
- (78) Symplectic Challenges, Brazilian Colloquium, Rio de Janeiro, July 2001
- (79) Symplectic Challenges, Brezis-Browder Festival, Rutgers University, October 2001
- (80) Holomorphic Curves and Three-Dimensional Dynamics, Workshop on Symplectic Geometry IAS April 2002
- (81) Holomorphic curves in low-dimensional dynamics, Semi-annual dynamics workshop, PennState, October 2002
- (82) Holomorphic Curves and the Weinstein Conjecture, Conference on Symplectic Geometry on the Occasion of A. Weinstein's sixtieth Birthday, ESI Vienna, August 2003
- (83) Holomorphic Curves and Reeb Flows on Closed Three-manifolds, Regional AMS Meeting, Lawrenceville, April 2004
- (84) The Weinstein Conjecture, Conference on Hamiltonian Dynamics, Montreal, May 2004
- (85) The Analysis Behind Symplectic Field Theory, Nato Conference, Montreal, June 2004
- (86) The Weinstein Conjecture, Conference on the Occasion of I. Ekeland's 60th Birthday, Paris, July 2004
- (87) Symplectic Field Theory, 40th Anniversary of the FIM, Zurich, July 2004
- (88) Symplectic Field Theory and Generalized Fredholm Theory with Operations, CDM Lectures Harvard, November 2004
- (89) 16 Lectures on Fredholm Theory in Polyfolds, Workshop on Symplectic Field Theory, Leipzig, May 2005
- (90) 4 Lectures on Fredholm Theory in Polyfolds, Workshop on Clusters, Polyfolds, and Lagrangian Floer homology, IAS Princeton, October 2005
- (91) Analytical foundations of symplectic field theory, Philadelphia area topology seminar, Bryn Mawr, March 2006
- (92) Analytical and geometrical foundations of symplectic field theory, Geometry Festival, UPenn, April 2006
- (93) Fredholm theory in polyfolds, Minnesota, Yamabe Memorial Conference, September 2006

- (94) A generalized Fredholm theory, Stony Brook, Dusa Fest, October 2006
- (95) Quantitative Symplectic Geometry, Auroux-Fest, Clay Institute, April 2007
- (96) Polyfolds and SFT, Yasha-Fest, Stanford, June 2007
- (97) A generalized Fredholm theory and some new ideas in nonlinear analysis and geometry, 2008 Clay Research Conference, Boston, May 2008
- (98) History of the Weinstein Conjecture, Hot-Topic Workshop, MSRI, June 2008
- (99) What do we know about the Weinstein Conjecture in higher dimensions, Hot-Topic Workshop, MSRI, June 2008
- (100) Status of the Weinstein Conjecture, UBC, June 2008
- (101) A Generalized Fredholm Theory and the Analytic Foundations of SFT, Geometry and Topology Conference, Münster, June 2009
- (102) The Analytic Foundations of Symplectic Field Theory, Conference on Bubbling-off, CUNY, March 2010
- (103) Polyfolds and SFT, Edinburgh, July 2010
- (104) Symplectic Dynamics, Harvard, JDG-Conference, April 2011
- (105) Symplectic Dynamics, Athens (GA), Georgia Topology Conference, May 2011
- (106) Some Questions at the Interface of Symplectic Geometry and Dynamics, (Mather-Fest), Lyon, June 2012
- (107) The Geometry, Analysis, and Topology of Moduli Spaces in Symplectic Geometry, Simons Center, Stony Brook, March 2014
- (108) Hamiltonian Dynamics and Symplectic Rigidity, (Ekeland-Fest), Paris, June 2014
- (109) Construction of moduli spaces in symplectic geometry, Conference on Rigidity and Flexibility in Symplectic Topology and Dynamics, Lorentz Center, Leiden, July 2014
- (110) Construction of Moduli Spaces in Symplectic Geometry, Clay Conference, Oxford, September 2014
- (111) Four Lectures on Polyfolds, IHES, July 2014
- (112) Polyfold Constructions, Uppsala, September 2015
- (113) Pseudoholomorphic Curves in Hamiltonian Dynamics and Symplectic Geometry, Geometric Dynamics Days, Bochum, February 2017
- (114) Feral Pseudoholomorphic Curves in Dynamics, Wysocki Memorial Conference, State College, April 2017

- (115) Feral Pseudoholomorphic Curves in Dynamics as a Bridge between Dynamics and Topology, Georgia International Topology Conference, Athens, May 2017
- (116) Feral Pseudoholomorphic Curves and Dynamics, Lyon, October 2017
- (117) Feral Pseudoholomorphic Curves as a Bridge between Dynamics and Topology, Katok Memorial Conference, State College, October 2018
- (118) Feral Curves and Minimal Sets, Geometry and Everything (Fukaya 60), February 2019
- (119) Feral Curves and Minimal Sets, Conference on C^0 -aspects of symplectic geometry and Hamiltonian dynamics, Haifa, May 2019
- (120) Feral Curves and Minimal Sets, Interactions of Symplectic Topology and Dynamics, Cortona, June 2019

Seminars:

- (1) Multiple solutions for a wave equation problem, SISSA, Trieste, April 1980
- (2) On the range of a wave operator with a non monotone non-linearity, Bath, July 1982
- (3) On the wave equation problem, Heriott–Watt Univ., Edinburgh, December 1983
- (4) Homoclinic, heteroclinic and periodic solutions for a class of indefinite Hamiltonian systems, Univ. of Zürich, December 1983
- (5) A general form of the mountain pass theorem and applications, Oxford Univ., June 1984
- (6) Lagrangian intersections and critical point theory, Univ. of Zürich, December 1984
- (7) Lagrangian intersections and a conjecture by V.I. Arnold, Ecole Normale, Paris, January 1985
- (8) Lagrangian intersections and critical point theory, New York Univ., December 1985
- (9) Periodic solutions with prescribed minimal period for convex Hamiltonian systems, Brown Univ., February 1986
- (10) Global and local invariants for convex Hamiltonian energy surfaces and their periodic trajectories, Univ. of Paris, October 1986
- (11) Global and local invariants for convex Hamiltonian energy surfaces and their periodic trajectories, Princeton Univ., November 1986

- (12) Hamiltonian energy surfaces and their periodic trajectories, Zürich Univ., December 1986
- (13) Periodic Hamiltonian trajectories on hypersurfaces in \mathbf{R}^{2n} , Univ. of Michigan, March 1987
- (14) Hypersurfaces in \mathbf{R}^{2n} and their periodic trajectories, Univ. of Wisconsin/Madison, March 1987
- (15) Symplectic topology and Hamiltonian dynamics, Institute for Advanced Study, Princeton, NJ, December, 1987
- (16) Symplectic topology and Hamiltonian systems, NYU-Princeton-Yale Analysis Seminar, NYU, December 1987
- (17) Symplectic topology, SUNY, Stony Brook, February, 1988
- (18) Elliptic systems and the Weinstein conjecture, Paris/Dauphine, March 1988
- (19) Symplectic Capacities, Berkeley, September 1988
- (20) Topologische Eigenschaften symplektischer Abbildungen, Bochum, Oktober 1989
- (21) Das Variationsprinzip der Hamiltonschen Mechanik, Universität Essen, December 1989
- (22) Topologische Eigenschaften Symplektischer Abbildungen, Bonn, Februar 1990
- (23) Neue Symplektische Invarianten, Augsburg, Juni 1991
- (24) Symplectic homology (2 lectures), Stanford, August 1991
- (25) The Arnold conjecture and holomorphic spheres, Berkeley–Davies–Santa Cruz–Stanford Joint Symplectic Seminar, September 1991
- (26) Properties of the symplectic diffeomorphism group, Berkeley March 1992
- (27) Survey on symplectic geometry, Borel Seminar Bern, April 1992
- (28) Elliptic methods in symplectic geometry, Borel Seminar Bern, May 1992
- (29) Symplectic homology, Borel Seminar Bern, July 1992
- (30) Pseudoholomorphic curves in symplectizations and the Weinstein conjecture, New York University, September 1992
- (31) Pseudoholomorphic curves in symplectizations and the Weinstein conjecture, Berkeley, October 1992
- (32) Symplektische Geometrie und Hamiltonsche Dynamik, DMV-Seminar Blaubeuren Juni 1993, 5 Lectures
- (33) A characterisation of the tight three-sphere, Orsay, November 1995
- (34) From periodic orbits to symplectic homology, Max Planck Institute Bonn, February 1996
- (35) Applications of symplectic homology, Max Planck Institute Bonn, March 1996

- (36) The dynamics on convex energy surfaces and holomorphic curves, CUNY, November 1997
- (37) The dynamics on convex energy surfaces and holomorphic curves, IAS, November 1997
- (38) The dynamics on convex energy surfaces and holomorphic curves, Rutgers, February 1998
- (39) The construction of global surfaces of section for three-dimensional dynamical systems by first order elliptic systems, IAS, October 1998
- (40) Contact geometry and holomorphic curves, Harvard, December 1998
- (41) Hamiltonian Dynamics, Variational Principles and Symplectic Invariants (10 Lectures for graduate students), PennState, June 1999
- (42) Holomorphic Curves and three-Dimensional Dynamics, SUNY at Stony Brook, April 2002
- (43) Holomorphic curves as a tool in low-dimensional dynamics, SUNY at Stony Brook, September 2002
- (44) Symplectic Field Theory, MSU, November 2004
- (45) Fredholm Theory in Polyfolds, Princeton, April 2005
- (46) Polyfolds and Fredholm Theory with Operations I, IAS, June 2005
- (47) Polyfolds and Fredholm Theory with Operations II, IAS, June 2005
- (48) Quantitative Symplectic Geometry, IAS, December 2005
- (49) Quantitative Symplectic Geometry, Penn-State, February 2006
- (50) A General Fredholm Theory, Columbia, December 2006
- (51) Quantitative Symplectic Geometry, PennState, April 2007
- (52) Hamiltonian Dynamics in Dimension Three, PennState, April 2007
- (53) Holomorphic Curves in Symplectic Geometry and Hamiltonian Dynamics, Courant, November 2007
- (54) A generalized Fredholm and the Gromov-Witten example I, PennState, March 2009
- (55) A generalized Fredholm and the Gromov-Witten example II, PennState, March 2009
- (56) Polyfolds, Humboldt University, Berlin, April 2009
- (57) Generalizations of Fredholm Theory, Tel Aviv, May 2011
- (58) Holomorphic Curves in Symplectic Geometry and a Generalization of Fredholm Theory I. Hebrew University, June 2011
- (59) Holomorphic Curves in Symplectic Geometry and a Generalization of Fredholm Theory II. Hebrew University, June 2011

- (60) Eight Lectures on Polyfolds, IAS, April 2012
- (61) Hamiltonian Dynamics and Symplectic Geometry, IAS Astrophysics, May 2012
- (62) Four Lectures on Polyfolds, Simons Center, Stony Brook, May 2014

Colloquiums:

- (1) Multiple solutions for an elliptic boundary value problem, Univ. of Trieste, April 1980
- (2) Homoclinic, heteroclinic and periodic solutions for a class of indefinite Hamiltonian systems, Univ. College, London, December 1983
- (3) Homoclinic, heteroclinic and periodic solutions for a class of indefinite Hamiltonian systems, Univ. Paris/Dauphine, February 1984
- (4) A generalization of the mountain pass theorem and applications, Univ. of Bochum, May 1984
- (5) The mountain pass theorem and applications, Univ. of Sussex at Brighton, June 1984
- (6) Lagrangian intersections and critical point theory, Paris/Dauphine, January 1985
- (7) Global and local invariants for convex energy surfaces and their periodic Hamiltonian trajectories, Univ. of MD, April 1986
- (8) Periodic solutions of Hamiltonian systems on prescribed energy surfaces and a conjecture by A. Weinstein, Univ. of CT/Storrs, February 1987
- (9) Periodic solutions of Hamiltonian systems, Ruhr-Universität Bochum, June 1987
- (10) On the topological properties of symplectic maps, November 1989, IHES, Bur-sur-Yvette
- (11) Hamiltonsche Dynamik, Symplektische Kapazitäten und Instanton Homologie, Universität Wuppertal, December 1989
- (12) Topologische Eigenschaften Symplektischer Abbildungen, Bremen, May 1990
- (13) Neue Invarianten im Phasenraum, TU Berlin, November 1990
- (14) Hamiltonsche Dynamik und Symplektische Geometrie, Universität Zürich, January 1991
- (15) Hamiltonsche Dynamik und Symplektische Invarianten, Universität Bern, January 1991
- (16) New symplectic invariants in phase space, Berkeley, September 1991

- (17) The Arnold conjecture in the presence of holomorphic spheres, Paris–Orsay, October 1991
- (18) Hamiltonian dynamics and symplectic invariants, Stanford, March 1992
- (19) Pseudoholomorphic curves and the Weinstein conjecture, Bern, June 1992
- (20) Geometrie auf der Gruppe der symplektischen Diffeomorphismen, Zurich, May 1992
- (21) Geometrie auf der Gruppe der symplektischen Diffeomorphismen, Bonn, June 1992
- (22) Pseudoholomorphic curves and the Weinstein conjecture, Stanford, October 1992
- (23) Geometry of the group of symplectic diffeomorphisms, Santa Cruz, October 1992
- (24) Pseudoholomorphe Kurven, Hamiltonsche Dynamik und dreidimensionale Kontaktgeometrie, Tübingen, November 1992
- (25) Recent advances in symplectic geometry, Vancouver, September 1993
- (26) Topology and dynamics in dimension three, Tel Aviv, November 1995
- (27) From the action spectrum to symplectic homology, Tel Aviv, November 1995
- (28) A characterisation of the tight three-sphere, Hebrew University, November 1995
- (29) The concept of energy in symplectic geometry, Bir-Zeit University, November 1995
- (30) Holomorphic curves and dynamics and three-manifolds, Princeton, October 1996
- (31) Hamiltonian dynamics on starshaped energy surfaces, Courant, October 1996
- (32) Holomorphic curves and contact structures, Stanford, October 1996
- (33) Holomorphic curves and dynamics in dimension three, Geneva, November 1996
- (34) Holomorphic curves and Hamiltonian dynamics, Berlin, May 1997
- (35) The dynamics on convex energy surfaces and holomorphic curves, Stony Brook, December 1997
- (36) Holomorphic curves and dynamics in dimension three, University of Chicago, January 1998
- (37) Holomorphic curves and dynamics in (real) dimension three, University of Pennsylvania, March 1998

- (38) The concept of energy in symplectic geometry, University of Toronto, October 1998
- (39) The construction of global surfaces of section in three-dimensional dynamical systems via first order elliptic system, IAS, October 1998
- (40) Three-dimensional dynamics and holomorphic curves, Madison, December 1998
- (41) Holomorphic curves as a bridge between dynamical systems and global analysis, University of Maryland, February 1999
- (42) From Hamiltonian Dynamics to Holomorphic Curves, University of Michigan, March 1999
- (43) From Hamiltonian Dynamics to Holomorphic Curves, Michigan State University, March 1999
- (44) Dynamics from an analysts point of view, Stieltje Colloquium, Leiden, September 2000
- (45) Holomorphic Curves in Low-dimensional Dynamics, Columbia University, November 2002
- (46) Hopf-Lectures 2003 : Somewhere between Dynamics and Topology, ETH Zurich, December 2003
- (47) Quantitative Symplectic Geometry, Berkeley, September 2004
- (48) Holomorphic Curves in Symplectic Geometry and Dynamics, Milano, Lezioni Leonardesche, October 2004
- (49) Somewhere between Hamiltonian Dynamics and Symplectic Geometry: Quantitative Symplectic Geometry, Rutgers, November 2004
- (50) Somewhere between Hamiltonian Dynamics and Symplectic Geometry: Holomorphic Curve Methods, Rutgers, November 2004
- (51) Quantitative Symplectic Geometry, MSU, November 2004
- (52) Quantitative Symplectic Geometry, Vancouver, December 2004
- (53) Quantitative Symplectic geometry, Montreal, April 2006
- (54) Quantitative Symplectic Geometry, Madison, May 2006
- (55) Analytic And Geometric Foundations Of Symplectic Field Theory, Madison, May 2006
- (56) Symplectic Geometry And Hamiltonian Dynamics, Madison, May 2006
- (57) New geometric and functional analytic ideas arising from problems in symplectic geometry, Vancouver, October 2006
- (58) Polyfolds and a Generalized Fredholm Theory, Ann Arbor, October 2007
- (59) Periodic orbits and the Weinstein conjecture, PennState, March 2009

- (60) Periodic orbits and the Weinstein conjecture, Humboldt University, Berlin, April 2009
- (61) From celestial mechanics to a geometry based on area, IAS, March 2010
- (62) Symplectic Dynamics, Amherst, April 2011
- (63) Symplectic Dynamics, Tel Aviv, May 2011
- (64) From Celestial Mechanics to a Geometry Based on Area, Hebrew University, June 2011
- (65) From Symplectic Geometry to Symplectic Dynamics I, RUB Bochum, December 2011
- (66) From Symplectic Geometry to Symplectic Dynamics II, RUB Bochum, December 2011
- (67) At the Interface of Dynamics and Symplectic Geometry, IAS (Women in Mathematics Program), May 2012
- (68) At the Interface of Dynamics and Symplectic Geometry, Leipzig, October 2012
- (69) Hamiltonian Dynamics and Symplectic Rigidity I-III, (Aisenstadt Lectures), Montreal , October 2013
- (70) From Dynamical Systems to Geometry and Back, ETHZ, December 2013
- (71) Problems and Questions in Symplectic Dynamics, Tel Aviv, March 2014
- (72) From Celestial Mechanics to a Geometry Based on Area, Humboldt University, July 2014
- (73) Global questions in low-dimensional dynamics with surprising connections to partial differential equations, Rutgers, May 2015
- (74) The Floer Jungle, Zoom talk Berlin Graduate School (Free University, Humboldt University, Potsdam University, Technical University) and Symplectic Zoominar (IAS, Princeton University, Montreal, Tel Aviv, Paris), July 2021