

# Curriculum Vitae<sup>1</sup>

**Hofer, Helmut**      **Professor, Institute for Advanced Study**

**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–

**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
- 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

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<sup>1</sup>May 5th, 2010

- 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

### **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 Grant, 1998-2001
- NSF-VIGRE Grant, 1999-2005
- NSF Grant, 2001-2011

### **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

### **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 Colloquim 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 Colloquim 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

#### **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.

**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 (since 1999).
- 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.

**Former Ph.D. students:**

- M. Schwarz, ETH Zürich 1995, Cohomology Operations from  $S^1$ -Cobodisms in Floer Homology
- K. Cieliebak, ETH Zürich 1996, Symplectic boundaries: Closed characteristics and action spectra
- C. Abbas, ETH Zürich 1997, Asymptotic behaviour of pseudoholomorphic 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. Gratza, 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

**Current Ph.D. students:**

- Dingyu Yang

**Editorial Activities:**

- Editorial board of “Communications in Pure and Applied Mathematics” 1997-2009
- Editorial Board of “Inventiones Mathematicae” since 2007, Managing Editor since 2008.
- 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
- 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)

**Memberships**

- American Mathematical Society