

# Publication List Helmut Hofer

## Curriculum Vitae<sup>1</sup>

**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

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<sup>1</sup>June 3, 2023

- Hermann Weyl Professor, Institute for Advanced Study, 2019–
- Visiting Lecturer with rank of Professor, Princeton University, 2013–

**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 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
- 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, Khovanskii, 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

**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
- 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

### **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–
- Editorial Board of the Annals of Mathematics, 2022–

### **Memberships**

- American Mathematical Society