



### **Biographical Sketch of Peter Hänggi**

**Date of Birth:** November 29-th, 1950

**Address:** Universität Augsburg, Institut für Physik  
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#### **Education**

**1970-1974:** Studies of physics at the University of Basel, Switzerland  
**April 1974:** Diploma in physics, University of Basel  
**Jan. 1977:** PhD, Theoretical physics, University of Basel

#### **Professional Experience**

**1977-1978:** Research Associate University of Illinois, Urbana, USA  
**1978-1979:** Guest Professor, Universität Stuttgart  
**1979-1980:** Postgraduate research associate, University of California, San Diego, USA  
**1980-1983:** Assistant professor of physics, Polytechnic Institute of New York, New York, USA  
**1983-1987:** Associate professor (with tenure), Polytechnic Institute of New York, New York, USA  
**Since 1986:** Professor (Ordinarius C4/W3) for Theoretical Physics (Emphasis: Statistical Physics), Institute of Physics, Universität Augsburg

#### **Scientific Interests**

Theoretical physics – Statistical Physics  
Dissipative quantum systems, physical biology, molecular electronics, Stochastic phenomena, nonlinear dynamics, control of quantum transport, Quantum information processing, Brownian motors, Relativistic Brownian motion and Relativistic Thermodynamics, Few body thermodynamics of cold atoms

## International Activities

**Editor-in-Chief:** EPJ-B, **Editor/Co-editor:** Physical Review E (2003-2009), Europhysics Letters (1997-2010), New Journal of Physics (1998-2008), Physica A, Physical Biology (2003-2011), Chemical Physics (1994-2012), ChemPhysChem(2004-2011), Lecture Notes of Physics, EPJ-ST(Special Topics), Scientific Reports (Nature Publ. Group), Ukrainian J. Physics, Intern. Review of Electrical Eng., IREE, Intern. Review of Physics, IREPHY, The Open Journal of Chemical Physics.

Chair: Scientific Advisory Committee (SAC) for European Physical Journal (EPJ): A, B, C, D, E, Appl. Phys., Member of the board of the German Physical Society, DPG, (1994-2010) Chair of division of "Dynamics and Statistical Physics", DPG, 2000-2003; board member, "Statistical and Nonlinear Physics" of the European Phys. Soc. (EPS) (2001-2009).

## Awards

- 1988:** Fellow of the American Physical Society  
**1995:** Nicolas Cabrera Professorship, Universidad Autonoma de Madrid, Spain  
**1998:** Michael Professorship, Weizmann Institute of Science, Israel  
**1999:** Fellow and Chartered Scientist Award (CSciCPhys/FInstP) Inst. of Physics
- 2001:** Elected external member of the MPI-PKS Dresden and member of the Max-Planck-Society  
**2002:** Humboldt Honorary Research Award of the Foundation of Polish Science  
**2003:** Eminent Scientist Award, RIKEN (Japan)  
**2003:** Elected member: German National Academy of Sciences *Leopoldina*  
**2005:** Dr. honoris causa from (i) the University of Silesia, Katowice (Poland); (ii) Universitat de Barcelona (Spain) and (iii) University of Camerino (Italy)  
**2005:** Elected foreign fellow: Am. Assoc. Adv. Science (AAAS)  
**2006:** Dr. honoris causa from Tartar State University of Humanities and Pedagogical Sciences, Kazan, Russia  
Elena Aizen de Moshinsky Professorship, UNAM, Mexico-City (2006)  
Smoluchowski-Medal of the Jagellonian University of Krakow, Poland  
**2006:** Dr. honoris causa from the National Academy of Ukraine, Ukraine  
**2007:** Elected ordinary member of the Academia Europaea, Physics and Engineering Section  
**2007:** Award of honorary professor at Beijing Normal University, Beijing, China  
**2008:** Dr. honoris causa rer. nat. from the Humboldt University Berlin  
**2009:** Dr. honoris causa from the Universidad de Sevilla, Spain  
**2009:** Invited Distinguished Lecture Series at Asian Pacific Center for Theoretical Physics (APCTP)  
**2009:** elected *Outstanding Referee* of the American Physical Society (APS)  
**2010:** selected for ISIHighlyCited.com  
**2010:** Lindhard Lectureship Prize 2010, University of Aarhus, Denmark  
**2010:** Dr. honoris causa from the Bogolyubov Institute for Theoretical Physics, Kiev  
**2011:** The Lars Onsager Medal 2011 and "The Lars Onsager Lectureship Prize" (<http://www.ntnu.edu/onsager>)  
**2014:** elected member: European Academy of Sciences (EURSAC)  
**2014:** distinguished scientist award and medal, Ben-Gurion University of the Negev, Israel (10.12.2014)  
**2015:** Elected outstanding reviewer status, Elsevier publications  
**2016:** Dr. honoris causa from Lobachevsky University, Nizhny Novgorod, Russia

## Publication Data

P. Hänggi has published over 600 original papers; 87 publications of those are cited at least 87 times (WOS h-index= **87**; Google scholar h = **97**), as of October 2017.  
Total # cites ISI-WoS (All data bases): > 40.000; Google scholar > 50.000.  
His ResearcherID is: **B-4457-2008**. Average citations per year: ~ 2200-2500.

## Reviews of Modern Physics

- P. Hänggi, P. Talkner, and M. Borkovec,  
**Reaction Rate Theory: Fifty Years After Kramers**,  
Rev. Mod. Phys. **62**: 251-342 (1990)
- L. Gammaitoni, P. Hänggi, P. Jung, and F. Marchesoni,  
**Stochastic Resonance**,  
Rev. Mod. Phys. **70**: 223-288 (1998)
- P. Hänggi and F. Marchesoni,  
**Artificial Brownian motors: Controlling transport on the nanoscale** ,  
Rev. Mod. Phys. **81**, 387-442 (2009)
- M. Campisi, P. Hänggi, and P. Talkner  
**Colloquium: Quantum fluctuation relations: Foundations and applications**  
Rev. Mod. Phys. **83**, 771-791 (2011)
- N. Li, J. Ren, L. Wang, Z. Gang, P. Hänggi, and B. W. Li,  
**Colloquium: Phononics: Manipulating heat flow with electronic analogs and beyond**, Rev. Mod. Phys. **84**, (3) (2012), [\[arXiv:1108.6120\]](https://arxiv.org/abs/1108.6120)

## Physics Reports:

- P. Hänggi and H. Thomas,  
**Stochastic Processes: Time-Evolution, Symmetries and Linear Response**,  
Phys. Rep. **88**: 207-319 (1982)
- M. Grifoni and P. Hänggi, **Driven Quantum Tunneling**,  
Phys. Rep. **304**: 229-358 (1998)
- S. Kohler, J. Lehmann and P. Hänggi,  
**Driven quantum transport on the nanoscale**,  
Phys. Rep. **406**: 379-443 (2005)
- J. Dunkel and P. Hänggi,  
**Relativistic Brownian motion**,  
Phys. Rep. **471**: 1-73 (2009)
- S. Denisov, S. Flach, and P. Hänggi,  
**Tunable transport with broken space-time symmetries**,  
Phys. Rep. **538**: 77-120 (2014)
- D. Hennig, C. Mulhern, L. Schimansky-Geier, G.P. Tsironis, and P. Hänggi,  
**Cooperative Surmounting of Bottlenecks**  
Phys. Rep. **586**, 1-51 (2015)

## Advances in Chemical Physics:

- P. Hänggi and P. Jung,  
**Colored Noise in Dynamical Systems**,  
Advances in Chem. Phys., Vol. **89**: 239-326 (1995)

### **Advances in Physics:**

- I. Goychuk and P. Hänggi,  
**Quantum dynamics in strong fluctuating fields,**  
Adv. Physics **54**: 525–584 (2005)

### **ChemPhysChem:**

- P. Hänggi,  
**Stochastic Resonance in Biology,**  
ChemPhysChem **3**: 285–290 (2002)
- P. S. Burada, P. Hänggi, F. Marchesoni, G. Schmid, and P. Talkner,  
**Diffusion in confined geometries,**  
ChemPhysChem **10**: 45–54 (2009)