



Biographical Sketch of Peter Hänggi

Date of Birth: November 29-th, 1950

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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: 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; 86 publications of those are cited at least 86 times (WOS h-index= **86**; Google scholar h = **96**), as of June 2017.

Total # cites ISI-WoS (All data bases): ~ 39.000.

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)