CURRICULUM VITAE



PETER HÄNGGI

Lehrstuhl für Theoretische Physik I Universität Augsburg Universitätsstr. 1 D-86135 Augsburg

PERSONAL DATA

Place of Birth: Date of Birth: Nationalities:

Bärschwil, Switzerland 29. November 1950 Switzerland and Germany

I am married to Gerlinde Hänggi and we have one son named Alexander.

Further details (diplomas, etc.) are available on <u>https://www.physik.uni-augsburg.de/theo1/hanggi/Curr.html</u>

EDUCATION

Abitur (Matura) Math.-Nat. Gymnasium Basel Studies of physics at the University of Basel, Switzerland University of Basel University of Basel University of Basel

MAJOR RESEARCH INTEREST

Theoretical Statistical Mechanics and Quantum mechanics

RESEARCH EXPERIENCE

Full Professor (Ordinarius, C4), University of Augsburg (Lehrstuhl für Theoretische Physik I)

Associate Professor, Polytechnic Institute of New York (with tenure), New York

Assistant Professor of Physics, Polytechnic Institute of New York, New York

Postgraduate Research Associate, University of California, San Diego

Visiting Professor, University of Stuttgart, Germany Research Associate, University of Illinois,

1970 1970-1974 B. Sc. 1972 M. S. 1974 PH. D. 1977

June 1986 - present

Sept. 1983 - Sept. 1987

Sept. 1980 - Sept. 1983

May 1979 - Sept. 1980

May 1978 - May 1979 April 1977 - April 1978

| | Urbana-Champaign |
|------------------------|---|
| Jan. 1977 - April 1977 | Research Associate, University of Basel, Switzerland |
| | PRIZES, HONORS & AWARDS |
| 1970 1977 1977 | Jacottet-Kung Prize, Basel, Switzerland Janggen-Pohn Prize, St. Gallen, Switzerland Max-Geldner Prize, Basel, Switzerland |
| 1988 | Fellow of the American Physical Society |
| Sept. 1994 - Nov. 2009 | Member of the Board of the German Physical Society (DPG) |
| 1995 | Nicolás Cabrera Professorship of the Universidad Autónoma de Madrid, Madrid |
| Dec. 1997 - Dec. 2009 | Boardmember of the regional section of the German Physical Society (Regionalverband Bayern e. V. der Deutschen Physikalischen Gesellschaft) |
| March 1998 | Michael Visiting Professorship of the Weizmann Institute of Science, Rehovot, Israel |
| 1998 | Fellow of the JSPS (Japanese Society for the Promotion of Science) at the Institute for Fundamental Chemistry, Kyoto, Japan |
| 1999 | Fellow of the Institute of Physics (UK) and Chartered Physicist (CPhys) |
| 2000 - 2003 | Chair of the division of "Dynamics and Statistical Physics" of the German Physical Society |
| 2000 - 2003 | Member of the Advisory Council "Dresdner Herbstseminar" |
| 2000 - 2005 | Member of the DPG committee "Future of Scientific Publishing" |
| 2001 - 2007 | Elected member of the Board of the Statistical and Nonlinear Physics Division of the European Physical Society (EPS) |
| 2001 - present | Elected external member of the MPI-PKS Dresden |
| 2001 - present | Elected Scientific member of the Max-Planck-society |
| 2002 | Humboldt Honorary Research Award of the Foundation for Polish Science (Fundacja na Rzecz Nauki Polskiej) |
| 2002 | Extraordinary member of CeNS - Center for NanoScience |

| 2003 | Eminent Scientist Award - <u>RIKEN</u> |
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| 2003 | Elected member of the National Academy of Sciences <i>LEOPOLDINA</i> |
| May 2003 | Evaluator for the program "Ramon y Cajal", Spain |
| 2004 | Board member of the Krzyzowa Initiative for Quantum Information European Research Network |
| July 30, 2004 | Institute of Physics Chartered Scientist Award (CSciCPhys/FInstP) |
| 2005/2006 | Dr. honoris causa ("Laurea magistralis honoris causa") in Physics, Università di Camerino, Italy; Dr. honoris causa, University of Silesia, Katowice, Poland; Dr. honoris causa, Universitat de Barcelona, Spain. |
| 2005 | Elected Foreign Fellow of the Am. Assoc. Adv. Science (AAAS) |
| 2006 | Dr. honoris causa, Tatar State University of Humanities and Pedagogical Sciences, Kazan, Russia |
| 2006 | Visiting Professorship in the Department of Physics, National University of Singapore (NUS); 2006 - 2008 |
| May 14, 2006 | Jagiellonian University Medal "Plus ratio quam vis", Krakow in recognition for his most outstanding scientific achievements and his continued dissemination of statistical physics works which relate in spirit to the pioneering contributions by <i>Marian von Smoluchowski</i> . |
| | The medal has been designed by Polish artist and sculptor, Jozef Sekowski, professor of the Academy of Fine Arts in Krakow. |
| May 31, 2006 | Doctor honoris causa from the National Academy of Sciences of Ukraine |
| June 1, 2006 | Award for the "Chair of Physics Elena Aizen de Moshinsky" from the National Autonomous University of Mexico (UNAM) |
| June 2007 | Honorary Professor award from the Beijing Normal University, Beijing |
| April 2007 | Elected ordinary member of the Academia Europaea, Physics and Engineering Sciences |
| February 12, 2008 | Doctor rer. nat. honoris causa from the Humboldt University Berlin |

| 2009 | Distinguished Lecture Series at Asian Pacific Center for Theoretical Physics (APCTP) and Pohang University of Science and Technology (POSTECH) |
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| 2009 | Doctor honoris causa from the Universidad de Sevilla, Spain |
| November 2009 | Elected "Outstanding Referee" of the American Physical Society (APS) |
| December 2009 | ScienceWATCH Fast breaking paper |
| December 2009 | selected for ISIHighlyCited.com_because of exceptional citation count in the field of Physics |
| 2010 | Centre for Theory in Natural Science (CTN) "Lindhard Lecture Prize 2010", University of Aarhus, Denmark, <u>http://www.physik.uni-augsburg.de/theo1/hanggi/Curr.html</u> |
| 2010 | Dr. honoris causa from the Bogolyubov Institute for Theoretical Physics, Kiev |
| 2011 | The Lars Onsager Medal 2011 and The Lars Onsager Lecture Prize 2011 <u>https://www.ntnu.edu/onsager/lecture</u> |
| 2012 present | Directors (Peter Hänggi and Fabio Marchesoni) of the <i>International School Statistical Physics</i> , at the Ettore Majorana Foundation and Centre for Scientific Culture in Erice, Italy. |
| June 2013/2015/2017/2019 | Elected member for the European Research Council (ERC)- panel PE 3 (Physical and Engineering Sciences, Condensed Matter) and reviewer for the panels: PE 3, PE 2 (Fundamental Sci.), PE 5 (Chemistry and Materials) |
| May 2014 | Elected member of the European Academy of Sciences (EURASC) |
| December 2014 | Distinguished scientist award and David Ben Gurion medal <u>https://www.physik.uni-</u> <u>augsburg.de/theo1/hanggi/Ben_Gurion-1.jpg</u> Ben-Gurion University of the Negev, Israel (10.12.2014) |
| May 2015 | Elected outstanding reviewer status Elsevier publications |
| November 2015 | Elected foreign honorary member to the Academia Română |
| April 2016 | Dr. honoris causa, Lobachevsky University, Nizhny Novgorod, Russia |
| March 2018 | Blaise Pascal medal in Physics from the European Academy of Sciences (EURASC) |

| November 2018 | Honorary Professor, Huaqiao University, Xiamen, China |
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| November 2018 | 15.11.2018: Marian-Smoluchowski-Emil-Warburg-Prize, commonly awarded by the German and the Polish Physical Societies (ceremony in 2019). <u>https://www.dpg- physik.de/auszeichnungen/dpg-preise-mit-anderen- organisationen/marian-smoluchowski-emil-warburg-physik- preis/preistraeger</u> |
| April 2019 | Award: "Senior Member Nanosystems Initiative Munich" (NIM) |
| April 2019 | Member of Committee: Evaluation for "National Centres of Competence in Research (NCCR), Switzerland |
| Sept. 27, 2022 | American Physical Society's 2023 Lars Onsager Prize, which recognizes outstanding research in theoretical statistical Physics including the quantum fluids <i>"For development of Brownian</i> <i>motors and pioneering contributions to nonequilibrium statistical</i> <i>physics, relativistic and quantum thermodynamics."</i> <u>https://www.aps.org/programs/honors/prizes/onsager.cfm</u> |
| January 2024 | Elected to the Industry Academy in the section International Artificial Intelligence Industry Alliance (AIIA). |
| July 22 2024 | Honorary Medal "De scientia et humanitate optime meritis" by the Czech Academy of Sciences; together with John C Mather, 2006 Nobel laureate: cosmic microwave background radiation of the universe. <u>https://www.avcr.cz/en/about-us/awards/medals-of-the- cas/honorary-medal-de-scientia-et-humanitate-optime- meritis/</u> |
| | EDITORIAL ACTIVITIES |
| June 2011 - Dec. 2016 Jan. 2003 - Dec. 2009 May 1997 - May 2002 May 2002 - December 2010 Jan. 1994 – December 2012 April 1998 - January 2008 June 2001 - present Dec. 2001 - present Nov. 2003 - January 2011 March 2004 - January 2011 March 2005 - 2007 | Editor-in-chief, European Physical Journal B (EPJ B) Editorial Board Member, Physical Review E Co-Editor, Europhysics Letters Advisory Editor, Europhysics Letters Advisory Editorial Board Member, Chemical Physics Editor, New Journal of Physics Advisory Editorial Board Member, Physica A Editorial Board Member, Lecture Notes in Physics Editorial Scientific Committee Member, Physical Biology Member of the Advisory Editorial Board, ChemPhysChem Member of the Scientific Advisory Committee (SAC) for "European Physical Journal" (EPJ) as the representative of the Phys. Soc. of Germany (Dt. Phys. Gesellschaft, DPG); SAC-Chair elect 2006, SAC-Chair (2007). |
| September 2006 - present | Editorial board: International Review of Electrical Engineering (IREE) |
| March 2007 - present | Editorial board of International Review of PHYSICS (IREPHY) |
| May 2007 - present | Editorial board member: The Open Chemical Physics Journal |

| October 2008 - present March 2009 - present | Editorial board of The European Physical Journal Special Topics (EPJ-ST) Intern. Advisory Editorial board of Ukrainan Journal of Physics |
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| February 2012 - present | Editorial Advisory board VERSITA Emerging Science Publishers (Physics, Materials Science, Astronomy) |
| October 2013 - present | Scientific Reports (Nature Publ. Group) |
| January 2025 - present | Advisory board member of <u><i>Thermo-X</i></u> <u>https://www.sciexplor.com/tx/editorial_board</u> |
| | ADDITIONAL POSITIONS |
| April 1997 - present | Member of the Institute of Interdisciplinary Computer Science, University of Augsburg, Germany |
| | PATENTS |
| | Controlled Stochastic Resonance Circuit US Patent 6, 285, 249 B1 Sept 4, 2001Jan 21, 2020 |
| | Noise-Induced Transport of microscopic particles in macroporous materials PCT (Europe, USA, Japan) EP 00/01 369 German Patent: 199 07 564 February 12, 2004 - February 2019 |
| | Bibliometric Data |
| | Goggle Scholar : <u>https://scholar.google.de/citations?hl=de&user=0Dt1AtUAA</u> <u>AAJ</u> |
| | ResearcherID on the WOS: B-4457-2008. Average citations in recent years: ~ 2200-2500. |
| | Peter Hanggi has published over 700 original papers; 102 linked publications of those are cited at least 102 times (WOS h-index = 102 (all data bases) + 4 = 106 (incl. 4 articles in books > 200); Google Scholar h = 120), as of <i>January</i> 2025. Total # cites ISI-WoS (all Databases): > 56.000; # cites Google Scholar > 75.000. |
| | RESEARCH AREAS |
| | • Biophysics, Transport of Ligands, Ion Channels |
| | Browninan motion Clasiscal and Quantum, Brownian Motor dynamics |
| | Normal and anomalous diffusion in confined and corrugated media/channels |

- Colored Noise, Nonmarkovian Dynamics
- Dissipative Quantum Mechanics, Quantum Tunneling Phenomena
- Time-dependent driven Quantum Dynamics; Quantum (Floquet) Control for transport and tunneling
- Elementary Particle Physics (Muon decay in orbit)
- Granular Media
- Microfluids and Fluctuating Hydrodynamics
- Molecular Electronics
- Path Integrals, Tunneling Time, Functional Methods, Math. Methods
- Quantum Information and Quantum Computing
- Nonlinear Dynamics
- Rate Theory, Metastability and Nucleation
- Statistical Mechanics in Equilibrium and Non-Equilibrium: Classical and Quantum
- General; Stochastic Processes: Non-Markovian regime, first passage time statistics, time evolution of open dynamics/operators -- beyond Lindblad regime
- Stochastic Resonance: Classical and Quantum
- Synchronization
- Transport Theory, Classical and Quantum, Surface Growth