



Curriculum Vitae

February 1966

Abitur at Freie Waldorfschule Kassel

July 1972

Diploma in Physics at the Freie Universität Berlin on the influence of acoustic fields on radiation distributions of excited nuclei under the supervision of H. Gabriel.

March 1977

Promotion to Dr. rer. nat. at the Freie Universität Berlin. Dissertation on nuclear quadrupole relaxation in liquid metals under the supervision of H. Gabriel.

April 1977
to
October 1977

Research period at the H. H. Wills Physics Laboratory of the University Bristol, England. Collaboration with R. Evans on thermodynamic properties of liquid metals and alloys.

November 1977
to
April 1980

Research Assistant in the Dept. of Physics of the University Marburg. Collaboration with B. Movaghar and P. Thomas on hopping transport in disordered semiconductors. Collaboration with F. Hensel and W. Freyland on the thermodynamic properties of liquid metals.

Since
April 1980

Research Assistant in the Dept. of Physics of the Technical University Munich with E. Lüscher and W. Petry. Research on transport and thermodynamic properties of disordered metals and semiconductors. Collaboration with W. Götze on the mode-coupling description of the glass transition.

January 1985
to
December 1985

Research period at the Institute Max von Laue/Paul Langevin (ILL) Grenoble. Collaboration with Ph. Nozières on many-body theory.

July 1989

Habilitation ("second Doctorate", Teaching ability). Dissertation on hopping transport in disordered semiconductors at the Dept. of Physics of the Technical University Munich.

Since
January 1990

Lecturer at the Technical University Munich.

April 1991
to
May 1992

Lecturer at the University of Augsburg. Research on quantum interferences in hopping transport. Collaboration with P. Hänggi on the path-integral description of complex dynamics in solids.

January 1993
to
December 1996

Research work on Fractals and critical phenomena. Collaboration with Klaus Mainzer on the philosophical interpretation of quantum and chaos physics.

January 1997 to March 1999	Research work with W. Götze and W. Petry on a Mode-coupling description of the lattice dynamics of strongly anharmonic crystals.
April 1999 to May 1999	Research visit at the Universität Köln. cooperation with Prof. J. Hajdu on the quantum theory of mesoscopic semiconductor structures and quantum chaos.
June 2001	Research visit at the Hebrew University, Jerusalem, Israel. Cooperation with Prof. Z. Ovadyahu and Dr. O. Bleibaum on Hopping Transport and tunneling in Semiconductors.
Oct./Nov. 1999, Nov. 2000 to March 2001 and Feb. 2002	Research visits at the University of Oregon, Eugene, OR, USA. cooperation with Prof. D. Belitz on the field theoretical description of vibrations in disordered solids.
September 2003; September 2004; Aug/Sept. 2005; Aug 2006	Research visits at the Advanced Photon Source, Argonne National Lab. co-operation with Dr. Harald Sinn on liquid dynamics and the metal-nonmetal transition. Work on the vibrational dynamics of disordered solids.
Juni 2006	Nomination as an extraordinary Professor
Nov. 2008 to March 2009	temporarily chair of theoretical physics in place of Prof. K. Binder, Univ. Mainz
Since April 2009	senior scientist and extraordinary professor at University Mainz Mainz
June 2011	Retirement
Fall 2013	Guest Professor at KAUST, Saudi Arabia. Scientific collaboration with Prof. A. Fratalocchi and Prof. G. Schuster on wave propagation in composite materials. Graduate Course on Field-theoretical description of disordered materials.
Oct 2014 - March 2015	Guest Scientist at the University of Innsbruck, Austria, Scientific collaboration with Prof. T. Franosch on soft-matter modelling.
June - July 2016	Guest Scientist at the University of Perugia, Italy, Scientific collaboration with Prof. A. Orecchini on visco-elastic properties of water
2015 - 2016	Collaboration with Prof. F. Hensel and Dr. W. C. Pilgrim, University of Marburg, Germany on the equation of states of expanded metals
2018 - 2020	Collaboration with Prof. A. Zeitler at the University of Cambridge, UK on anomalous-Kerr-effect data in glasses, granted by the British Counsel
2018 - 2020	Collaboration with Prof. Anne Tanguy, INSA Lyon, France, on the use of finite-element simulations for the description of disordered solids and soft matter
2018 - 2020	Collaboration with Prof. Jie Zhang, Jiao Tong Technical University Shanghai, on the interpretation of the vibrational properties of two-dimensional macroscopic granular materials
2019 - 2021	Collaboration with Prof. Bodil Holst, University of Bergen, Norway, on the interpretation of inelastic helium scattering from disordered two-dimensional SiO ₂ layers
2019 until now	Collaboration with Prof. L. Wondraczek, University of Jena, Germany on the interpretation of Raman and specific heat data in glasses
2006 until now	 Extended collaborations and research visits at the University “La Sapienza”, Rome and Istituto Italiano di Tecnologia (IIT) Rome: Cooperation with Prof. G. Ruocco, Prof. T. Scopigno, Dr. M. Leonetti, Dr. M. Paoluzzi, and Prof. F. Zamponi on the theory of waves and vibrational excitations in disordered systems.

Citation statistics



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Verified email at uni-mainz.de
Physics of disordered mate...

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TITLE	CITED BY	YEAR
Harmonic vibrational excitations in disordered solids and the "boson peak" W Schirmacher, G Diezemann, C Ganter Physical review letters 81 (1), 136	541	1998
Acoustic attenuation in glasses and its relation with the boson peak W Schirmacher, G Ruocco, T Scopigno Physical review letters 98 (2), 025501	404	2007
Thermal conductivity of glassy materials and the "boson peak" W Schirmacher EPL (Europhysics Letters) 73 (6), 892-898	301	2006
On the theory of hopping conductivity in disordered systems B Movaghar, W Schirmacher Journal of Physics C: Solid State Physics 14 (6), 859-880	258	1981
Hopping transport on a fractal: ac conductivity of porous silicon M Ben-Chorin, F Möller, F Koch, W Schirmacher, M Eberhard Physical Review B 51 (4), 2199	251	1995
Heterogeneous shear elasticity of glasses: the origin of the boson peak A Marruzzo, W Schirmacher, A Fratalocchi, G Ruocco Scientific reports 3 (1), 1407	234	2013

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