

RÉSUMÉ

Prof. Dr. Eberhard K. U. Gross

Born 1953 in Frankfurt/Main.

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Scientific Curriculum

- Since 2001** Professor of Theoretical Physics at Freie Universität Berlin.
- 1990-2001** Fiebigger Professor at University of Würzburg.
- 1986-1990** Heisenberg Fellow at University of California, Santa Barbara.
- 1986** Habilitation and *venia legendi*, J.W. Goethe University Frankfurt.
- 1984-1986** Postdoctoral physicist at University of California, Santa Barbara (with Walter Kohn)
- 1980-1984** Research assistant at J.W. Goethe University Frankfurt.
- 1980** Dr. phil. nat., J.W. Goethe University Frankfurt, Physics Department.

Honors and Awards

- Elected Max Planck Fellow at the Fritz-Haber-Institut Berlin (awarded by the Max-Planck society), 2005.
- Schlumberger Professorship with medal, University of Cambridge, UK, 2003-2004.
- Visiting Fellow, Trinity College, Cambridge, UK, 2003-2004.
- Benjamin Meaker Professorship, University of Bristol, UK, 2000.
- International Research Fellow of the Australian Research Council, 1994-1995.
- Heisenberg Fellowship (a highly prestigious young-researcher fellowship of the German Science foundation that allows the recipient to spend up to 5 years at any scientific institution worldwide), 1986-1990.
- NATO Postdoctoral Fellowship, 1984.
- Study Fellowship and PhD Fellowship of the "Studienstiftung des deutschen Volkes". (Federal German foundation for the support of outstanding students), 1973-1979.
- First Prize in the Federal German Mathematics Competition, 1971.

Activities within the Scientific Community

- President and German representative in the Council of CECAM (Centre Européen du Calcul Atomique et Moléculaire), Lyon.
- Editorial Board member of the Kluwer series "*Progress in Theoretical Chemistry and Physics*".
- Steering Committee member of the ESF program "*Electronic Structure Calculations for Elucidating the Complex Atomistic Behavior of Solids and Surfaces*" (STRUC- Ψ_k).
- Organizer of 10 International Workshops and Schools.
- Node coordinator in the EU Network of Excellence "*NANOQUANTA: Nanoscale Quantum Simulations for Nanostructures and Advanced Materials*" (and member of governing board), 2004-2008.
- Node coordinator in the EU Research Infrastructures Action "*LIGHTNET*", a theory consortium associated with synchrotron-related research, 2006-2010.
- Node leader (and coordinator of all theory projects) in the EU Research and Training Network "*EXC!TING: First-Principles Approach to the Calculation of Optical Properties of Solids*", 2002-2006.

- Node leader (and coordinator of all superconductivity projects) in the EU TMR Network “ Ψ_k : *Ab initio calculation of complex processes in materials*”, 1998-2003.
- Project leader in the DFG Priority Program SPP 1145 “*Modern and Universal First-Principles Methods for Many-Electron Systems in Chemistry and Physics*” (and co-initiator of the whole program).
- Project leader in the DFG Collaborative Research Center SFB 410 “*II-VI Semiconductors, Growth Mechanisms, Low-Dimensional Structures and Interfaces*”.
- Project leader in the DFG Collaborative Research Center SFB 450 “*Analysis and Control of Ultrafast Photoinduced Reactions*”.
- Project leader in the DFG Collaborative Research Center SFB 658 “*Elementary Processes in Molecular Switches at Surfaces*”.
- Project leader in the DFG Graduate College “*Electronic Density in Chemical and Biological Systems*”.
- Member of selection committee for the “*Studienstiftung des deutschen Volkes*”.

112 invited lectures at International Conferences in the last 10 years

89 Colloquia and research seminars in the last 10 years

Special lectures

- *Zhong Guan Cun Forum*, Institute of Physics, Chinese Academy of Sciences (Beijing), December 19, 2006
- *Pauli Colloquium*, University of Vienna (Austria), March 31, 2006.
- *Ehrenfest Colloquium*, University of Leiden (Netherlands), April 27, 2005.
- *Schlumberger Lecture*, University of Cambridge (UK), January 15, 2004.
- *Benjamin Meaker Lecture*, University of Bristol (UK), March 27, 2000.

Over 150 articles and book chapters, cited more than 4700 times.

Five most-cited publications (from ISI Web of Knowledge, Cited Reference Search, 28 June 2007)

- 1.) (934 citations)
Density functional theory for time-dependent systems
E. Runge and E.K.U. Gross, Phys. Rev. Lett. **52**, 997 (1984).
- 2.) (501 citations)
Density-functional theory of time-dependent phenomena
E.K.U. Gross, J.F. Dobson and M. Petersilka, Topics in Current Chemistry **181**, 81 (1996).
- 3.) (418 citations)
Time-dependent density functional theory
E.K.U. Gross and W. Kohn, Adv. Quant. Chem. **21**, 255 (1990).
- 4.) (415 citations)
Excitation energies from time-dependent density-functional theory
M. Petersilka, U.J. Gossmann and E.K.U. Gross, Phys. Rev. Lett. **76**, 1212 (1996).
- 5.) (274 citations)
Local density functional theory of frequency-dependent linear response
E.K.U. Gross and W. Kohn, Phys. Rev. Lett. **55**, 2850 (1985).