

1 CURRICULUM VITAE

1.1 ACADEMICE DEGREES

- 1980 Diplomingenieur (= M. Sc.) in Applied Mathematics, Technical University of Vienna, Austria.
- 1981 Ph.D., Technical University of Vienna, dissertation topic: 'Numerical Solution of Singularly Perturbed Two Point Boundary Value Problems', Advisor: R. Weiss .
- 1988 Habilitation, Technical University of Vienna, Austria

1.2 PROFESSIONAL EXPERIENCE

- 1990-present Professor, Department of Mathematics, Arizona State University, Tempe, Arizona.
- 1992-1995 Chair, Department of Mathematics, Arizona State University, Tempe, Arizona.
- 1986-1990 Associate Professor, Department of Mathematics, Arizona State University.
- 1983-1986 Assistant Professor, Department of Mathematics, Arizona State University.
- 1982-1984 Research Associate, Mathematics Research Center, University of Wisconsin, Madison.
- 1980-1982 Research Associate, Institute for Applied Mathematics, Technical University of Vienna, Austria.

Visiting Positions:

- Fall 2012 Universite Paul Sabatier, Toulouse, France.
- Spring 2009 Institute for Pure and Applied Mathematics, UCLA, Los Angeles, USA.
- 2005-2006 Wolfgang Pauli Insitute, University of Vienna, Austria.
- 2005 Morningside Centre, Academica Sinica, Beijing, China.
- 2000 Institute for Mathematics and its Applications, University of Minnesota, Minneapolis.
- 1999 Centre de Mathematique et Physique, Universite Paul Sabtier, Toulouse, France.

1999 Texas Institute for Computational and Applied Mathematics, University of Texas, Austin.

1998 Institute for Microelectronics, Technical University of Vienna, Austria.

1998 Erwin Schrödinger Institute for Mathematical Physics, Vienna, Austria.

1995 Department of Mathematics, Universite de Nice, France.

1991-1992 Centro de Calculo Cientifico, Universidad de Buenos Aires, Argentina.

1991-1992 Department of Mathematics, Technical University of Berlin, Germany.

1988-1989 Department of Electrical Engineering, Technical University of Hamburg, Germany.

1988-1989 Department of Mathematics, Technical University of Vienna, Austria.

2 INVITED CONFERENCE PRESENTATIONS 2005-2013

- "Optimizing geometries in complex networks", EURO-INFORMS 26th European Conference on Operational Research, Rome, July,2013.
- "Averaged kinetic models for particle flows on complex networks" Theory and Numerics of Kinetic Equations, Saarbruecken, FRG, May, 2013.
- "Kinetic theories for transport in periodic and confined structures" (invited, 4 talks) Summer school on Kinetic Equations, Shanghai, PRC, June 2011.
- "Averaged kinetic models for flows on complex networks" (invited) Kinetic Description of Multiscale Phenomena, Wisconsin, Madison, May 2011.
- "Modeling network Flows on multiple time scales" (invited) Congres N. BenAbdallah, Toulouse, FR, March 2011.
- "Sub-band modeling of transport in narrow geometries" (invited) Kinetic Description of Multiscale Phenomena /Brown University , May 2010.
- "Kinetic and fluid dynamic models for complex supply networks". (invited) C.I.M.E. Summer School on "Modelling and optimization of flows on networks", Cetraro, Italy, 2009.
- "Kinetic models for supply networks", (invited) IPAM Long Program: Quantum and Kinetic Transport: Analysis Computations, and New Applications, UCLA, 2009.
- "Transport in narrow geometries under strong confinement", Conference On Modern Topics in Nonlinear Kinetic Equations,Cambridge, UK, 2009.

- "Confined transport in biological structures", (invited) Summer School and Workshop on Kinetics and Statistical Methods for Complex Particle Systems, Lisbon, Portugal, 2009.
- "Kinetic theories for confined transport", (invited) SIAM Conference on Analysis of Partial Differential Equations, MIAMI, FL 2009.
- "Hyperbolic Models for Large Supply Chains" (invited) HYP2008, U. of Maryland, College Park, June 2008.
- "Maximum entropy closures for quantum transport in confined geometries" (invited) IPAM Workshop: Entropies and Optimal Transport in Quantum Mechanics, UCLA , June 2008.
- "Computational aspects of solid state transport" (invited) IMA -NSF workshop on "Opportunities in solar energy research", U of Minnesota, Minneapolis, Nov. 2008.
- "Multi-scale Modeling and Simulation of Field-Effect Biosensors " (invited) SBMI-CRO2008, Porto Allegre, Brazil, Sep. 2008.
- "Semi-classical Transport Models in Thin Slabs" (invited) SIAM Meeting on PDEs, Phoenix, December 2007.
- "Modeling of Quantum Transport in Open Nanostructures" (invited) EQUADIFF 07, Vienna, August 07.
- "Sub-Band Drift Diffusion Models for Quantum Transport in a Strong Force Regime", (invited) ICIAM 07, Zürich, July 07.
- "STOCHASTIC DYNAMICS OF LONG SUPPLY CHAINS WITH RANDOM BREAK-DOWNS", (invited) ICIAM 07, Zürich, July 07.
- "AGGREGATE MODELS FOR THE SIMULATION OF PRODUCTION NETWORKS" (invited) Symposium Armbruster, Eindhoven, June 07.
- "Applications of Maximum Entropy Closures to Device Simulation" SEMIC 06, Vienna, Austria, February 06.
- "Quantum Monte Carlo methods based on a multi - scale approach" International Workshop on nonlinear PDE's, Vienna, Austria, June 06.
- "KINETIC AND FLUID MODELS FOR SUPPLY CHAIN SIMULATION" Thematic Institute on 'Complex Flows in Biological and Production Networks' Goldrain, Italy, June 2005.
- "ENTROPY BASED NUMERICAL KINETICS AND QUANTUM MECHANICAL CORRECTIONS", IPAM Workshop on Numerical Methods in Astrophysics, UCLA, May 2005.

- "CHARGED PARTICLE MODELS FOR THE SIMULATION OF PRODUCTION NETWORKS", HYKE meeting on 'Hyperbolic and Kinetic Equations' Rome, May 2005.
- "Kinetic equations in drift dominated regimes" Colloque au memoire de Frederic Poupaud, Nice, March 2005.
- "Charged particle models for the simulation of production networks", "Nonlinear PDEs and Applications", Capital Normal University, Beijing, July 2005.