

## CURRICULUM VITAE

### Univ.Prof. Mag. Dr. Christoph Dellago

Professor of Computational Physics at the Faculty of Physics, University of Vienna

Born April 11, 1965, Bozen (Italy)

### Education

1984 Matura, Realgymnasium (high-school equivalent) in Bozen, Italy  
1985-1991 University of Vienna, Austria, Diploma, Physics  
1992-1996 University of Vienna, Austria, Ph. D., Physics

### Positions

1990-1993 SIEMENS AG, Vienna, Austria, software developer  
1993-1996 University of Vienna, Institute for Experimental Physics, research assistant  
1996-1999 University of California at Berkeley, Department of Chemistry, Schrödinger Fellow of the Austrian Science Foundation (FWF)  
1999-2003 University of Rochester, Department of Chemistry, Assistant Professor  
since Apr 2003 Full Professor, Faculty of Physics, University of Vienna  
since 2006 Group leader of the Computational Physics Group, Faculty of Physics  
Oct-Feb 2008 Vice Dean of the Faculty of Physics, University of Vienna  
since Mar 2009 Dean of the Faculty of Physics, University of Vienna

### Prizes and Awards

1996-1998 Erwin Schrödinger-Fellow of the Austrian Science Foundation  
1997 Förderpreis der Stiftung zur Förderung junger Südtiroler im Ausland  
2005 The Raymond and Beverly Sackler Prize in Physical Sciences awarded by Tel Aviv University

### Professional Activities

- Organizer of the Workshop "Characterizing and Studying Transition Mechanisms and States in High Dimensional Systems", May 4-6, 2000, Lyon, France
- Organizer of the Workshop "Finding transition pathways in complex systems", September 28-30, 2003, Vitry-sur-Seine, France
- Organizer of the Workshop "Stochastic and Deterministic Dynamics in Equilibrium and Nonequilibrium Systems" (with H.A. Posch), August 25-28, 2004, Vienna, Austria
- Organizer of the Workshop "Conformational dynamics in complex systems" (with E. Vande-Eijnden and P. Bolhuis), CECAM, June 6 - 17, 2005, Lyon, France
- Austrian member in the Steering Committee of the ESF-Program *SimBioMa - Molecular Simulations in Biosystems and Materials Science*, since 2005
- Member of the Management Committee of the COST-MolSimu Committee, European Union, since 2007
- Organizer of the ESI-Workshop "Nonlinear dynamics meets stochastic dynamics", 18-20 April, 2007, Vienna, Austria
- Organizer of the ESI-Program on "Metastability and Rare Events in Complex Systems", February 1- April 30, 2008, Vienna, Austria
- Member of the Austrian advisory board of the 33rd Conference of the Middle European Cooperation in Statistical Physics-MECO33, April 14 -16, 2008, Puchberg/Wels, Austria

- Member of the Mentoring Program for Women at the Faculty of Physics, 2007
- Co-opted member of the Liquids Board of the European Physical Society, 2007-2008
- Chair of the Liquids Board of the European Physical Society, since 2008

## Referee for

*Biophysical Journal, ChemPhysChem, Chemical Physics Letters, Chemical Physics, Computer Physics Communications, European Physics Journal B, Europhysics Letters, Journal of Chemical Physics, Journal of Computational Physics, Journal of Physics A, Journal of Physical Chemistry, Journal of Statistical Mechanics, Journal of Chemical Theory and Computation, Molecular Physics, Nature, Physical Review E, Physical Review Letters, PhysChemComm, Physica D, Proceedings of the National Academy of Sciences of the USA, Scripta Materialia, Journal of the American Chemical Society, The National Science Foundation, The Petroleum Research Fund of the American Chemical Society, The Italian National Institute for the Physics of Matter, The Netherlands Organisation for Scientific Research (NWO), Israel Science Foundation*

## Research Interests

- Equilibrium and non-equilibrium statistical mechanics
- Molecular dynamics simulation, Monte Carlo simulation
- Simulation algorithms for rare events
- Proton transfer in aqueous media
- Chaos in many-particle systems
- Structural and morphological transitions in nanoparticles
- Chemical reaction dynamics

## Recent key publications

W. Lechner and C. Dellago, "Point defects in two-dimensional colloidal crystals: simulation vs. elasticity theory", *Soft Matter* **5**, 646 (2009).

J. Köfinger, G. Hummer, and C. Dellago, "Macroscopically ordered water in nanopores", *Proc. Natl. Acad. Sci.* **105**, 13218 (2008).

M. Grünwald, P. L. Geissler, and C. Dellago, "An efficient transition path sampling algorithm for nanoparticles under pressure", *J. Chem. Phys.* **127**, 154718 (2007).

H. Oberhofer, C. Dellago, and S. Boresch, "Single molecule pulling with large time steps", *Phys. Rev. E* **75**, 061106 (2007).

C. Dellago, and G. Hummer, "Kinetics and mechanism of proton transport across membrane nanopores", *Phys. Rev. Lett.* **97**, 245901 (2006).

M. Grünwald, E. Rabani, and C. Dellago, "Mechanisms of the wurtzite to rocksalt transformation in CdSe nanocrystals", *Phys. Rev. Lett.* **96**, 255701 (2006).

E. Schöll-Paschinger and C. Dellago, "A proof of Jarzynski's non-equilibrium work theorem for dynamical systems that conserve the canonical distribution", *J. Chem. Phys.* **125**, 054105 (2006).

Y. Wang, S. Teitel, and C. Dellago, "Surface driven bulk reorganization of gold nanorods", *Nano Lett.* **5**, 2174 (2005).

A. Tröster and C. Dellago, "Wang-Landau Sampling with Self-adaptive Range", *Phys. Rev. E* **71**, 066705 (2005).