

Jörg Rottler

PhD (Johns Hopkins University), Diplom Physik (Universität Konstanz)

1 Employment History

2005- Assistant Professor, Department of Physics and Astronomy, University of British Columbia

2003-2005 Research Associate, Princeton University

2003 Visiting Researcher, Ecole Supérieure de Physique et de Chimie Industrielles (ESPCI), Paris

2 Ten most significant publications for the past 5 years

1. J. Rottler, D. J. Srolovitz, and R. Car, *Point defect dynamics in bcc metals*, Phys. Rev. B **71**, 064109 (2005).
2. J. Rottler and A. C. Maggs, *Local Molecular Dynamics with Coulombic Interactions*, Phys. Rev. Lett. **93**, 170201 (2004).
3. J. Rottler and A. C. Maggs, *A Continuum, $O(N)$ Monte-Carlo algorithm for charged particles*, J. Chem. Phys. **120**, 3119 (2004).
4. J. Rottler and M. O. Robbins, *Polymer Glasses, Simulation of Crazing and Fracture*, invited contribution to *Encyclopedia of Materials: Science and Technology* (2004)
5. J. Rottler and M. O. Robbins, *Growth, microstructure, and failure of crazes in glassy polymers*, Phys. Rev. E. **68**, 011801 (2003)
6. J. Rottler and M. O. Robbins, *Jamming under tension in polymer crazes*, Phys. Rev. Lett. **89**, 195501 (2002).
7. J. Rottler, S. Barsky and M. O. Robbins, *Cracks and Crazes: On calculating the Macroscopic Fracture Energy of Glassy Polymers from Molecular Simulations*, Phys. Rev. Lett. **89**, 148304 (2002).
8. J. Rottler and M. O. Robbins, *Yield conditions for deformation of amorphous polymer glasses*, Phys. Rev. E **64**, 051801 (2001).
9. S. Heinrichs, J. Rottler and P. Maass, *Nucleation on top of islands in epitaxial growth*, Phys. Rev. B **62**, 8338 (2000).
10. J. Rottler and P. Maass, *Second Layer Nucleation in Thin Film Growth*, Phys. Rev. Lett. **83**, 3490 (1999).

3 Research funding

1. *Parallel Cluster Computer for the simulation of complex materials*, Canada Foundation for Innovation Leadership Opportunity Fund competition 2005, Status: applied.
2. *Molecular simulations of structure and nonequilibrium dynamics of soft materials*, NSERC Discovery Grant competition 2005, Status: applied.