

Ulf Rørbæk Pedersen

Curriculum vitae



Danish, born 1980.

✉ Roskilde University
Dept. of Science and Environment,
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EMPLOYMENT

- 2014 – NOW **Senior post doc.**
Roskilde University, Denmark
- 2011 – 2013 **Post doc.**
Vienna University of Technology, Austria
- 2009 – 2011 **Post doc.**
U. C. Berkeley, California (USA)

EDUCATION

- 2006 – 2009 **Ph. D. in Physics**
Roskilde University, Denmark
- 2003 – 2006 **Master in Physics and Chemistry**
Roskilde University, Denmark
- 1999 – 2003 **Bachelor in Physics and Chemistry**
Roskilde University, Denmark

GRANTS

- 2014 **VILLUM Young Investigators**
4M DKK, 4 years
- 2009 **DFP (FNU) Individual Postdoctoral grand**
1M DKK, 2 years

TEACHING

2016-: Teacher on the Quantum Mechanics course at Roskilde Uni; 2014-: Supervising student projects on Master level at Roskilde Uni.; 2009-2011: Supervising student projects on Bachelor level at Roskilde Uni.

INTERNATIONAL CONFERENCES

Invited speaker 3 times, contributed oral presenter 15 times and poster presenter 9 times since 2011.

RESEARCH INTERESTS

Crystallization: Developer of the computational “interface pinning” method to study first order-transitions.

Viscous liquids & the glass transition: Co-architect of the “isomorph theory” of structure and dynamics of simple liquids. Slow structural fluctuations in cold viscous liquids.

Ab initio quantum computations: DFT computations of metallic elements.

Biophysics: Perturbation of small ions and molecules into phospholipid membranes.

PUBLICATIONS

PUBLICATIONS: 29
Web of Science data: H-INDEX: 18
TIMES CITED: 1088

Selected publications:

- [1]: NATURE COMMUNICATIONS 7, 12386 (2016)
U. R. Pedersen et al.
Thermodynamics of freezing and melting
- [2]: J. CHEM. PHYS. 139, 104102 (2013)
U. R. Pedersen
Direct calculation of the solid-liquid Gibbs free energy difference in a single equilibrium simulation
- [3]: NATURE PHYSICS 7, 817-822 (2011)
D. Gundermann et al.
Predicting the density-scaling exponent of a glass-forming liquid from Prigogine-Defay ratio measurements
- [4]: PHYS. REV. LETT. 104, 105701 (2010)
U. R. Pedersen et al.
Geometry of slow structural fluctuations in a super-cooled binary alloy

REFERENCES

- Prof. Christoph Dellago (Uni. of Vienna), christoph.dellago@univie.ac.at
- Prof. Jeppe C. Dyre (Roskilde Uni.), dyre@ruc.dk