Research profile **Martin Oettel**

Curriculum Vitae:

14.03.1973	born in Jena, Germany
1991 – 1997	Study of Physics (Technische Universität Clausthal, State University of New York at Stony Brook, Universität Tübingen), leading to Diploma in Physics
1998 – 2000	PhD studies with Dr. R. Alkofer (now University of Graz) at University of Tübingen, with thesis on: “Relativistic Bound States of Quark and Diquark”
2001 – 2002	Postdoctoral Fellow at Adelaide University, supported by the Alexander-von-Humboldt foundation (Feodor Lynen grant)
2002 – 2006	Postdoctoral Fellow at Max Planck Institute for Metals Research, Stuttgart, with Prof. Siegfried Dietrich
2006	Parental leave (6 months)
2006 – 2012	Leader Independent Junior Research Group “Colloids at Interfaces” (Collaborative Research Centre “Colloids in External Fields” SFB-TR6, University of Mainz)
2011	”Lehrstuhlvertretung” (visiting professor) University of Mainz
2012	”Lehrstuhlvertretung” (visiting professor) University of Düsseldorf
since 10/2012	Professor for Theoretical and Computational Nanoscience at the University of Tübingen
since 2013	Co-organizer of the annual conference “Density Functional Days”
2015-2018	Head of Physics department

Areas of Research:

- Statistical Mechanics, Theory of Soft Condensed Matter
- Interfacial and capillary phenomena
- Crystallization of classical systems

Researcher-ID: C-4417-2008

Ten most relevant publications of the last ten years:

[1] R. Evans, M. Oettel, R. Roth, and G Kahl,
New developments in classical density functional theory,
J. Phys.: Condens. Matter **28**, 240401 (2016).

[2] M. Mortazavifar and M. Oettel,
A fundamental measure density functional for fluid and crystal phases of the AsakuraOosawa model,
J. Phys.: Condens. Matter **28**, 244018 (2016).

[3] S. Mandal, S. Lang, M. Gross, M. Oettel, D. Raabe, T. Franosch, and F. Varnik,
Multiple reentrant glass transitions in confined hard-sphere glasses,
Nat. Comm. **5**, 4435 (2014).

[4] J. Bleibel, A. Dominguez, F. Günther, J. Harting, and M. Oettel,
Hydrodynamic interactions induce anomalous diffusion under partial confinement,
Soft Matter **10**, 2945 (2014).

[5] D. Soraruf, F. Roosen–Runge, M. Grimaldo, F. Zanini, R. Schweins, T. Seydel, F. Zhang, R. Roth, M. Oettel, and F. Schreiber,
Protein cluster formation in aqueous solution in the presence of multivalent metal ions a light scattering study,
Soft Matter **10**, 894 (2014).

[6] A. Härtel, M. Oettel, R. E. Rozas, S. U. Egelhaaf, J. Horbach, and H. Löwen,
Tension and stiffness of the hard sphere crystal-fluid interface,
Phys. Rev. Lett. **108**, 226101 (2012).

[7] M. Oettel, S. Görig, A. Härtel, H. Löwen, M. Radu, and T. Schilling,
Free energies, vacancy concentrations and density distribution anisotropies in hard–sphere crystals: A combined density functional and simulation study,
Phys. Rev. E **82**, 051404 (2010).

[8] T. Schilling, H. J. Schöpe, M. Oettel, G. Opletal, and I. Snook,
Precursor–Mediated Crystallization Process in Suspensions of Hard Spheres,
Phys. Rev. Lett. **105**, 025701 (2010).

[9] M. Oettel and S. Dietrich,
Colloidal interactions at fluid interfaces,
Langmuir **24**, 1425 (2008).

[10] D. Frydel, S. Dietrich, and M. Oettel,
Charge renormalization for effective interactions of colloids at water interfaces,
Phys. Rev. Lett. **99**, 118302 (2007).