

Curriculum vitae

Gerhard Gompper, Prof. Dr. rer. nat

Date of birth: September 3, 1956
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Academic education

1977 - 1987 Physics at Ludwig-Maximilians-Universität München, Germany
1983 Diploma in Physics; Thesis: Pinning of interfaces at defect lines
1986 Dr. rer. nat. in Physics (*magna cum laude*); Thesis: Theory of critical X-ray and neutron scattering at surfaces
1993 Habilitation in Physics, Thesis: Statistical Theories of Self-assembling Amphiphilic Systems

Academic career

1989-1994 Institut für Physik, Ludwig-Maximilians-Universität München, Research assistant in the group of Prof. Herbert Wagner
1994-1999 Staff Scientist, Max-Planck-Institut für Kolloid- und Grenzflächenforschung, Teltow-Seehof
Since 1999 Director of Institute Theory II, Institut für Festkörperforschung (IFF), Forschungszentrum Jülich.
Since 2000 Full professor, Department of Physics, University of Cologne

Scientific visits

1987 – 1989: Postdoctoral Fellow, University of Washington, Seattle, USA

Scientific interests

Wetting, thermal fluctuations of interfaces and membranes, structure and phase behavior of ternary amphiphilic systems, microemulsion and sponge phases, mesoscale simulation techniques for hydrodynamics of complex fluids, colloidal soft matter under shear flow, vesicles and red blood cells under flow, microfluidics, sperm motility

Scientific awards

2000 Schrödinger award of the Stifterverband der Deutschen Wissenschaften, for interdisciplinary research (together with J. Allgaier, D. Richter, T. Sottmann, R. Strey)

Activities

Organized Conferences: Jülich Soft Matter Days 2001-2004, Kerkrade (Netherlands); International Soft Matter Conference 2007, Aachen (Germany); Jülich Soft Matter Days 2005-2006, 2008-2009, Gustav-Streesemann-Institut Bonn (Germany).
Organized Summer Schools: IFF-Ferientschule 2002 “Soft Matter”, IFF-Ferientschule 2004 “Physics meets Biology”, IFF-Ferientschule 2006 “Computational Condensed Matter Physics”, IFF-Ferientschule 2008 “Soft Matter”.

Reviewer

Several scientific journals, including Physical Review, Journal of Chemical Physics, Soft Matter, Biophysical Journal.

Editorial boards

Europhysics Letters – EPL: Coeditor 2004-2007, Advisory editor 2007-2010;
PhysMath Central Biophysics: Editorial Board 2008-2010.

Selected publications

1. H. Noguchi and G. Gompper (2004): Fluid vesicles with viscous membranes in shear flow, *Phys. Rev. Lett.* 93, 258102 [1-4].
2. H. Noguchi and G. Gompper (2005): Shape transitions of fluid vesicles and red blood cells in capillary flows, *Proc. Natl. Acad. Sci. USA* 102, 14159-14164.
3. G. Vliegenthart and G. Gompper (2006): Forced crumpling of self-avoiding elastic sheets, *Nature Materials* 5, 216-221.
4. M. Ripoll, R.G. Winkler, and G. Gompper (2006): Star polymers in shear flow, *Phys. Rev. Lett.* 96, 188302 [1-4].
5. J. Liam McWhirter, Hiroshi Noguchi, and Gerhard Gompper (2009): Flow-induced clustering and alignment of vesicles and red blood cells in microcapillaries, *Proc. Natl. Acad. Sci.* 106, 6039-6043.