Prof. Dr. Ralf Stannarius

Curriculum vitae

since 2003	Full professor at Otto von Guericke University Magdeburg, chair of the Department of Nonlinear Phenomena
2001	Visiting professor at Otto von Guericke University Magdeburg
1991	Habilitation at University of Leipzig, Privatdozent (Lecturer) since 1995
1990	Postdoc, Liquid Crystal Institute, Kent, OH
1990	Dr. sc. nat.: "*Studies of the dynamics of liquid crystals*"
1985 – 2003	assistant professor at the Faculty of Physics and Geosciences, Leipzig
1985	Dr. rer. nat.*: Investigation of orientational order of thermotropic liquid crystals by means of Nuclear Magnetic Resonance",* Univ. of Leipzig
1982 – 1985	Graduate student at the University of Leipzig
1982	Diploma (Dipl.-Phys.): "*Measurement of diamagnetic susceptibility anisotropy of thermotropic liquid crystals"*, Institute of Experimental Physics I, University of Leipzig
1977 – 1982	Studium of Physics, University of Leipzig
1974 – 1977	Military service
1974	Abitur at Wilhelm-Pieck-Gymnasium, Borna, Germany (High school)

Memberships/boards

Ombudsman of Deutsche Bunsengesellschaft at Magdeburg University
Board member of the German Liquid Crystal Society (DFKG)
Member of DFG, ILCS, DFKG, Deutsche Bunsengesellschaft, APS
Editorial board member: Physical Review E 2012-2017, Scientific Reports (since 2016)
Chair of Magdeburger Arbeitsgemeinschaft für Forschung unter Raumfahrt- und Schwerelosigkeitsbedingungen (MARS)

Research Soft matter, complex fluids, nonlinear phenomena and spontaneous pattern formation, thin fluid films,
approximately 220 publications in international peer-reviewed journals
two textbooks, several book articles.

Selected recent publications:

K. Harth, T. Trittel, S. Wegner, and R. Stannarius. Free Cooling of a Granular Gas of Rodlike Particles in Microgravity. *Phys. Rev. Lett.*, **117** 214301 (2018).

A. Ashour, T. Trittel, T. Börzsöny, R. Stannarius. Silo outflow of soft frictionless spheres. *Phys. Rev. Fluids* **2** 123302 (2017)

R. Stannarius. Magnetic Resonance Imaging of Granular Materials. *Rev. Sci. Instr*., **88** 051806 (2017)

R. Stannarius, K. Harth. Defect interactions in anisotropic twodimensional fluids. *Phys. Rev. Lett*., **117** 157801 (2016).

D. Fischer, T. Börzsönyi, D. Nasato, T. Pöschel, R. Stannarius. Heaping and secondary flows in sheared granular materials. *New J. Phys*., **18** 113006 (2016).

T. Börzsönyi, E. Somfai, B. Szabó, S. Wegner, P. Mier, G. Rose, R. Stannarius. Packing, alignment and flow of shape-anisotropic grains in a 3d silo experiment. *New J. Phys.*, **18** 093017 (2016).

A. Eremin, P. Hirankittiwong, N. Chattham, H. Nádasi, R. Stannarius, J. Limtrakul, O. Haba, K. Yonetake, and H. Takezoe. Optically driven translational and rotational motions of micro-rod particles in a nematic liquid crystal. *PNAS*, **112** 1716 (2015).

K. Harth, T. Trittel, K. May, S. Wegner, and R. Stannarius. Three-dimensional (3d) experimental realization and observation of a granular gas in microgravity. *Adv. Space Res*., **55** 1901 (2015).