

Max-Planck-Institut für Dynamik und Selbstorganisation

Max Planck Institute for Dynamics and Self-Organization



MAX-PLANCK-GESELLSCHAFT

The Max Planck Institute for Dynamics and Self-Organization is an international research institute. It performs both experimental and theoretical fundamental research and currently employs about 280 people.

At the department Dynamics of Complex Fluids headed by Prof. Dr. Stephan Herminghaus, we seek to fill

Ph.D. Positions (m/f)

within a research group working in the field of

Biophysics / Soft Matter Physics.

The Positions

We seek highly motivated, outstanding candidates interested in questions about the research topics “**physics of living matter at interfaces**” and “**life in complex geometries**”.

The research group headed by Dr. Oliver Bäumchen combines concepts from soft matter physics, biophysics, statistical physics, and micro/nanofluidics. The experimental methods include advanced optical microscopy techniques based on high-speed, fluorescence and contrast-enhancing imaging modes. The group combines these methods with novel high-precision force spectroscopy techniques for time-resolved measurements of interfacial forces in living cells, microorganisms and biological tissue.

We are offering excellent working conditions in a highly international research environment. The successful candidates will join an active, interdisciplinary team involved in international collaborations. They will design and conduct *in vivo* experiments on interfacial forces in living cells and motile microorganisms. In particular, we study model organisms such as photoactive microalgae and their motility and adhesion at surfaces. Our goal is to understand the physical aspects of microbiological life in natural habitats. Our results entail important implications e.g. for the formation of biofilms in natural and technological settings.

Your Profile

The PhD candidates should have a Master's or comparable degree in physics, biophysics or in a related subject. A background in the field of biophysics or soft matter physics is desirable. Good experimental skills and knowledge of experimental techniques, image processing and data analysis are required, programming skills (e.g. Matlab) are desirable. Fluency in both written and spoken English is required.

Our Offer

The salary and working hours are in accordance with the funding guidelines of the Max Planck Society for junior scientists, salary is 2/3 of E13 TVöD-Bund. The PhD positions are limited to three years with optional extension if necessary.

The Max Planck Society is committed to employing more handicapped individuals and especially encourages them to apply. The Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

Your Application

Applications should include a CV, a list of publications, contacts of two referees and a brief statement of interests. Please send your application or any inquiry, quoting the reference number no. 05-2017, by email to oliver.baumchen@ds.mpg.de in one pdf-file **until April 15th, 2017**.

MPI for Dynamics and Self-Organization

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