

# 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 at Göttingen, Germany, is an international research institute. It performs both experimental and theoretical fundamental scientific research and currently employs about 250 people.

For the newly established independent research group of Dr. Karen Alim we seek to fill

## **PhD positions (m/f) in Biological Physics.**

We are looking for excellent, highly motivated early-career researchers to join our research team.

The research of the independent Max Planck research group combines theoretical and experimental methods to investigate how an organism grows to form a desired structure and pattern. Understanding the morphogenesis of an organism, the collective self-organization of cells that gives rise to a functional structure is at the heart of decoding life. We aim to identify the rules of development by studying the physical principles underlying the formation and adaptation of biological organisms. Currently we investigate the mechanics of plant growth and the fluid dynamics enabling the slime mold *Physarum polycephalum* to adapt its network-like body to its environment. Our approach is primarily theoretical and closely interacting with experiment. On the theoretical side, we use analytical and numerical methods from mechanics, fluid dynamics, statistical physics and non-linear dynamics. On the experimental side, we have our own laboratory where we investigate the adaptation dynamics of *Physarum polycephalum* and enjoy collaborations around the world.

The PhD position is limited to three years. Starting date is **October 1, 2015**.

The PhD candidate should have a Master's degree (or comparable) in biology, experimental physics, theoretical physics, applied mathematics, or in a related field. The ideal candidate should have a background in quantitative biology, soft matter or statistical physics. Programming skills are highly desired.

In close collaboration with the Georg August University, a structured PhD program is offered in the graduate program of the Physics Department, or in the graduate program on the Physics of Biological and Complex Systems.

Salary and working hours are in accordance with the funding guidelines of the Max Planck Society, or in accordance with the German state public service salary scale (E13 TVöD-Bund) and the accordant social benefits.

The Max-Planck society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. 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.

To apply, please send your CV, publication list, a statement of interests and at least two letters of reference. Your statement of interests should briefly describe your past and current research interests and why you are interested in joining our group. For full consideration please send your application material in a single pdf file, quoting reference no. **03/2015**, until **May 15, 2015** by email to [karen.alim@ds.mpg.de](mailto:karen.alim@ds.mpg.de).

## **MPI for Dynamics and Self-Organization**

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