



## Post-doctoral fellow position "Sensory control and Biomechanics of Insects flying in Turbulence"

### Basic Information

Post-doctoral fellow for 2 years, starting August 1st, 2021 or later, Stipend of University of Rostock

### Project description

The working group of Fritz Lehmann at the University of Rostock focuses on an integrative approach to investigate the neuronal, biomechanical, and aerodynamical bases of insect flight behaviors. We use genetic and neuronal tools, behavioral essays, robotics devices and several imaging methods to dissect the flight cascade in *Drosophila* ranging from sensory input to flow control by wing flapping.

The group seeks a postdoctoral fellow with strong interests in the Neurobiology and Aerodynamics of flying animals. The aim of the Postdoctoral project is to understand insect flight control in turbulent environments. Ultimate goal of the project is to determine impacts, benefits and limitations of environmental turbulence on flight stability and energetic costs in flapping flight. The project is diverse and comprises studies on the biomechanics of insect wings, neurobiological recordings, behavioural studies, robotics, and laser-based measurements of flow structures during flight. The position is open for a wide range of topics and own proposals in Neurobiology or Aerodynamics are highly welcome.

The successful candidate should have:

- A Ph.D. degree or equivalent in Biology, Engineering or related disciplines
- Strong interest in interdisciplinary research of animal locomotion
- Experiences in insect flight is desirable
- Excellent communication and team-working skills
- Enthusiasm and great commitment to research
- Good command of the English language

We offer:

- A 2-year post-doctoral fellow stipend according to guidelines of the University of Rostock. The position may be extended by one more year.
- An exciting and excellent research environment
- Travel opportunities for training and meetings
- Training opportunities in fluid dynamics, behavioral physiology and robotics

### Location

The position is offered by the Department of Animal Physiology at the University of Rostock, Germany. The department resides in a modern, state-of-the-art building together with several biological work groups and close to the Departments of Engineering and Electrical Sciences. Rostock is a lovely, mid-sized town located near the Baltic Sea. It features moderate ambient temperature and offers many opportunities for recreation including swimming, sailing, and hiking.

## **Application**

Applications should submit the following documents:

- a detailed Curriculum Vitae
- a cover letter
- a list of publications
- an essay describing your motivation, past research experience and future interests
- and names and addresses of at least two referees.

Equal opportunity is an essential part of our human resources policy. In case of equal qualification, applications from severely disabled people or equivalent are explicitly welcome. The University of Rostock seeks to increase the proportion of women in research and teaching, and particularly encourages female applicants to apply for this position. Applications from foreign scientist and people with migration background are appreciated. Please note that application and travel costs are not reimbursed by the Federal State of Mecklenburg-Vorpommern.

Please send these documents with the identifier **PD 22021** and as a single PDF-file to [tierphysiologie@uni-rostock.de](mailto:tierphysiologie@uni-rostock.de). The positions will be filled up whenever a candidate is selected. For inquiries and further information please visit our webpage under <https://www.tierphysiologie.uni-rostock.de/> please or send an email to [tierphysiologie@uni-rostock.de](mailto:tierphysiologie@uni-rostock.de).