

Job Advertisement

The Leibniz Institute of Photonic Technology (Leibniz-IPHT) offers a position in the Department of Fiber Research and Technology, working group Holographic Endoscopy, related to the ERC-funded project LIFEGATE, at the rank of:

Doctoral Researcher (m/f/d)

The post is offered in part-time (50%) for the duration of three years starting **15th August 2019**, with the possibility of a one year extension. The successful candidate will be enrolled as a doctoral student in the Friedrich-Schiller-University Jena and pursue a PhD degree.

The Leibniz-IPHT is a university-independent research institute with close connection to the Friedrich-Schiller-University Jena and a member of the Leibniz association.

Topic:

*Complexity of living matter currently poses the most adverse barrier in modern in-vivo microscopy. Fuelled by numerous branches of life sciences, the race is now to increase the penetration depth of super-resolution imaging inside living organisms. The project LIFEGATE sets out to develop new, hair-thin endoscopic devices, sending back high-quality images from unprecedented depths of the most delicate tissues of living organisms. The team will push the fundamental and technological limits of the enabling principle - **holographic control of light propagation through multimode fibres**. This 'gate-through-life' will enable the team to deploy several prominent light-based imaging methods, including super-resolution approaches, inside freely moving animal models and ultimately humans.*

LIFEGATE is hosted in the modern premises of Leibniz-IPHT in Jena (Germany), featuring spacious optics laboratories, in-house fibre-manufacturing facilities as well as a support by mechanical workshops.

The successful candidate will work in the translation towards a micro-endoscopy instrument for use in clinical research.

Requirements:

Candidates should hold a Master degree, or equivalent, in Physics, Engineering Physics, Optical Engineering, Electrical Engineering or related disciplines, with an emphasis on imaging or experimental Optics and Photonics. Previous experience in one of the focus areas below is highly desirable:

- Photonics of complex media
- Fibre-optics
- Adaptive optics
- Holography
- Biophotonics
- Endoscopic imaging

Skills:

- Ability to work independently as well as a part of a team;
- Interest in working on a cross-disciplinary project with bio-medical researchers;
- Well-developed analytical thinking;
- Good knowledge of programming for instrument control (e.g. MATLAB, LabVIEW, Python, or C++) is desirable;
- Fluency in English, spoken and written, is essential.

Salary:

German tariffs for public employees (TV-L).

As an equal opportunity employer, Leibniz-IPHT is committed to increase the proportion of female scientists and therefore especially encourages applications from them.

Informal enquires may be addressed to Prof. Dr. Tomáš Čížmár (email: tomas.cizmar@leibniz-ipht.de).

Applications must include:

- Cover letter outlining the candidate's suitability for the position;
- Curriculum Vitae;
- Overview of past research activities (up to two pages);
- Copy of Master's Thesis or any other publications, if available;
- Copies of degree certificates and transcripts of records;
- Names and contact details of two references.

Please submit your application electronically in PDF format **until 15th June 2019** to:

Leibniz Institute of Photonic Technology Jena
Human Resources
Albert-Einstein-Straße 9, 07745 Jena, Germany
e-mail: Personal_Abt@leibniz-ipht.de
Code: 2019_21