

## Job offer No. 2021\_18

The Leibniz-Centre for Photonics in Infection Research (LPI, <http://lpi-jena.de>) is a project of the National Roadmap for Research Infrastructures of the Federal Ministry of Education and Research (BMBF). As one of the supporting institutions of the LPI, the Leibniz Institute of Photonic Technologies (Leibniz-IPHT, <https://www.leibniz-ipht.de/>) is looking to recruit a

# Postdoctoral Researcher (f/m/d)

**for 2 years full time.** An extension might be discussed if suitable.

The LPI is being established by a consortium of four supporting institutions ([Leibniz-HKI](#), [Leibniz-IPHT](#), [FSU Jena](#), [Universitätsklinikum Jena](#)) In future, it will combine photonic technologies with infection research and thus contribute to the development of new methods for diagnosis, monitoring and therapy for human medicine. Research results will be transferred to clinical practice along the entire value chain. The LPI's research programme is divided into basic technologies, in which the four supporting institutions jointly address various scientific and technological focal points in an interdisciplinary approach. As a user-open translational infrastructure, LPI makes newly developed demonstrators and methods available to external partners within the framework of joint projects. The position to be filled comprises the development of advanced fibre laser systems for direct Mid-IR generation (beyond 2.5 µm wavelength), particularly, operating in ultrashort pulse regime.

### Your tasks

- Development of lasers systems for ultrashort pulse generation, particularly in the Mid-IR wavelength range (beyond 2.5 µm wavelength)
- Refining underlying nonlinear phenomena and fibre technologies
- Test the laser in vibrational absorption spectroscopy for diagnostics

### We expect

- PhD (or equivalent) in Optical Engineering / Electrical engineering / Laser Physics / Applied Physics / Engineering Physics or similar
- Solid theoretical and experimental knowledge in fibre laser development and ultrafast laser systems (mode-locked lasers, fibre laser frequency combs, pulse characterisation techniques, etc.)
- Desired knowledge of standard computational techniques in nonlinear optics in Matlab or Python
- A track record in scientific publications in the field of ultrafast lasers
- Fluent English (spoken and written)

### We also appreciate

- Hands-on experience in fibre laser development
- Knowledge of standard computational techniques in nonlinear optics in Matlab or Python

### We offer

- An open welcoming culture
- A family-friendly atmosphere with work-life balance as a central concern
- Working in an interdisciplinary environment
- Promotion and further development for employees

Salary is in accordance with the regulations of the TV-L. The Leibniz-IPHT aims to increase the proportion of women among its staff and strongly encourages qualified women to apply. Severely disabled persons will be given preferential consideration in case of equal suitability.

**Further information:** [Dr. Maria Chernysheva](#) | +49 (0) 3641 206 312 | [maria.chernysheva@leibniz-ipht.de](mailto:maria.chernysheva@leibniz-ipht.de)

The application must be accompanied by a CV, certificates, personal motivation statement on how your knowledge and experience will benefit the project, contact information of two professional references and publication list **until August 15, 2021** with **Code 2021\_18** preferably by e-mail ([Personal\\_Abtl@leibniz-ipht.de](mailto:Personal_Abtl@leibniz-ipht.de)) as a pdf file via the Leibniz-IPHT personnel office:

**Leibniz-Institut für Photonische Technologien Jena e.V.**  
**Personalbüro**  
**Albert-Einstein-Straße 9, 07745 Jena**  
**Kennziffer: 2021\_18**

### Privacy Notice:

By sending us your application documents, you consent to the processing of your personal data in connection with the application process. This consent can be revoked in writing or electronically at any time without giving reasons. Please note that revocation of consent may mean that the application can no longer be considered in the current procedure.

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