



MAX-PLANCK-INSTITUT
für die Physik des Lichts

The Max Planck Institute for the Science of Light research covers a wide range of topics, including nonlinear optics, quantum optics, nanophotonics, photonic crystal fibres, optomechanics, quantum technologies, biophysics, and links between physics and medicine.

PhD Student Position (m/f/d) in Quantum Opto-Acoustics

We are an independent research group at the Max Planck Institute for the Science of Light. Our research interests span from nonlinear optics to quantum optics with a focus on light-sound interactions and waveguide optomechanics. The physics of optical waves interacting with acoustic or mechanic vibrations is fascinating because it links two very different domains in terms of frequency, velocity, dissipation and other properties. We explore these interactions experimentally at the classical and quantum level with suitably engineered microstructured fibres and nanowaveguides to manipulate, in this way, light states.

We invite applications from talented and highly motivated students for a **3-year PhD project** in the field of experimental quantum opto-acoustics. The project is situated at the interface of quantum optics, nonlinear optics and quantum information processing. It involves photonic design and fabrication, conception and setup of optical experiments and their analysis and interpretation within the rich theoretical background.

Requirements and skills:

- Excellent Master's degree or equivalent (German "Gymnasiallehramt", etc.) in physics, photonics or photonic engineering
- High motivation to conduct experimental research
- Ability to work independently and in a research team, collegiality and enthusiasm
- Desired: experience in optomechanics, quantum optics, nanomechanics

We offer a dynamic group atmosphere in an excellent research environment. We have local and international collaborations with experimental and theoretical groups. The Max Planck Institute for the Science of Light (www.mpl.mpg.de) is a world leading institution in basic research in light-matter interaction and quantum optics. 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. Furthermore, 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.

For more information and application (including a letter of motivation, CV and the contact details of two possible referees) please contact:

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