At the Max Planck Institute for the Science of Light fundamental research takes place in the areas of biophysics, nonlinear optics, quantum optics, nanophotonics, photonic crystal fibers, optomechanics, quantum technologies and research at the interface of physics and medicine. To do this, we recruit the best scientists in the world to work on the really big scientific questions and we give them everything they need - creating the knowledge of tomorrow.

The research group of Dr. Flore Kunst on Non-Hermitian Topological Phenomena was founded in November 2021. Non-Hermiticity plays a central role in classical and quantum systems. In the classical realm, this comes about due to, e.g., gain and loss processes in optics, while in the quantum realm, non-Hermiticity describes the dynamics of open quantum systems as well as scattering, decay, broadening and resonances due to, e.g., interactions and disorder. In recent years, non-Hermiticity has been investigated in the context of topology revealing a dramatic enrichment of the phenomenology of topological phases resulting in a new cross-disciplinary research field that is rapidly expanding.

In our group, we investigate non-Hermitian topology in different contexts ranging from simple toy models admitting analytical descriptions to open quantum systems. We also collaborate with local experimental group to directly test our models in the lab.

The research group of Dr. Flore Kunst invites applications for a

Postdoctoral researcher (f/m/d) (2 years)

For the postdoctoral position, demonstrated experience in at least one of the following topics is expected: condensed matter physics, open quantum systems, topological phases of matter, and quantum many-body physics. The position can be extended upon mutual agreement.

The following materials are requested:
(i) CV (including publication list) (ii) motivation letter (iii) two reference letters.

Application materials should be sent to Flore Kunst. Reference letters should be sent by the letter writers directly to Flore Kunst.

We will start interviewing candidates immediately. The starting date can be as early as October 1st, 2023 but can be negotiated.

The Max Planck Institute for the Science of Light is a world-leading research institute dedicated to fundamental research on all areas related to the science of light. We offer competitive salaries (TVöD E13; 100%) and an international research environment at MPL.

If you are a young, highly motivated, creative and excellent theoretical physicist, apply now to join our team!

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. The Max Planck Society strives for gender and diversity equality, welcoming applications from all backgrounds.