

Postdoc and PhD positions in theoretical physics: Machine Learning for Quantum Technologies

The theory division at the Max Planck Institute for the Science of Light employs modern machine learning techniques for challenges in quantum technologies and artificial scientific discovery. Several positions (postdoc and PhD) are to be filled starting November this year, some of them in the context of the recently launched Bavarian quantum computing initiative.

Our group has pioneered reinforcement learning approaches to enable a machine to discover from scratch improved quantum error correction strategies, quantum feedback, and quantum circuits, and the goal is to take these approaches to a new level and tackle advanced applications. Collaborations with leading experimental groups worldwide are an important component of our work.

Postdoc positions are initially for a duration of 2 years, with possibility for extension by 1 year, and PhD positions are for 3 years, with a possible extension by 1 year.

We will start interviewing candidates immediately and keep doing so until the positions are filled.

Please submit your CV, including publication list (for postdoc candidates), to Gesine.Murphy@mpl.mpg.de, cc Florian.Marquardt@mpl.mpg.de. Postdoc candidates please have 2 letters of reference sent to the same address as well.

Institute website: <https://mpl.mpg.de>

Theory division website: <https://mpl.mpg.de/divisions/marquardt-division/>

The Max Planck Institute for the Science of Light in Erlangen is a leading international research centre investigating all aspects of light. It has been founded in 2009 by the Max Planck Society.

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.