

Two Postdoc Positions in Quantum Optics and Many-body Theory at Heidelberg University

Tue, 2019-01-08 18:44 - [Philipp Hauke](#) [1] **At:** Heidelberg University

Deadline: 8 March, 2019

Location

Heidelberg University Im Neuenheimer Feld 227
Heidelberg 69120 Germany
See map: [Google Maps](#) [2]

The research group for Quantum Optics and Many-body Theory of Philipp Hauke at Heidelberg University is searching for two highly motivated and skilled postdocs to work on the following topics

- Implementation of gauge theories in cold atomic gases
- Characterization of many-body systems through entanglement, especially for topological states of matter and for out-of-equilibrium dynamics
- Design of protocols for measuring many-body entanglement

The positions will benefit from the uniquely dynamical and vibrant research environment at Heidelberg, generated among others by the Synthetic Quantum Systems effort at the Kirchhoff-Institute for Physics, the Institute for Theoretical Physics, the German Collaborative Research Center SFB 1225 ISOQUANT, as well as the Excellence Cluster STRUCTURES. The research will be carried out in collaboration with leading experimental and theoretical groups within Heidelberg and worldwide.

Successful candidates are expected to have an excellent research record as well as a strong background in one or more of the following areas: condensed-matter theory, lattice gauge theories, quantum non-equilibrium dynamics, topological states of matter, theoretical quantum optics, atomic physics, quantum information, entanglement theory.

The candidates will have the opportunity to assist in the supervision of PhD and Master students. Thus, communication skills as well as the ability to work efficiently in a team will also be highly valued.

The positions (salary level TV-L E13) are funded through the ERC Starting Grant StrEnQTh and the Collaborative Research Center SFB 1225 ISOQUANT. Duration is initially for one year with extension possible up to 3 years. Starting date is as soon as possible.

Heidelberg University is aiming for an equal representation of women and therefore explicitly encourages qualified female candidates to apply. Severely challenged persons will be given preference in case of equal qualifications. The position can in principle be split.

Suitable candidates are asked to submit:

1. A presentation letter with declaration of research interests.
2. A Curriculum Vitae, including a list of publications.
3. Contact emails of at least two potential referees.

For the application or in case of further questions, please contact

Philipp [dot] hauke [at] kip [dot] uni-heidelberg [dot] de

Further information about the Quantum Optics and Many-Body Theory group, the Kirchhoff-Institute for Physics, the Institute for Theoretical Physics, and the SFB ISOQUANT may be found here

<http://www.kip.uni-heidelberg.de/qot/> [3]

<http://www.kip.uni-heidelberg.de/synqs/> [4]

<http://www.thphys.uni-heidelberg.de/index.php?lang=e> [5]

http://isoquant.uni-heidelberg.de/index_en.php [6]

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