

# PhD Position

## at the Institute for Theoretical Physics

The University of Cologne is one of the largest and most research-intensive universities in Germany, offering a wide range of subjects. With its six faculties and its interfaculty centres, it offers a broad spectrum of scientific disciplines and internationally outstanding profile areas, supported by the administration with its services.

In the Institute for Theoretical Physics of the University of Cologne a position for a PhD student in theoretical physics is available under the supervision of Prof. Dr. M. Rizzi, within the framework of the Collaborative Research Center 183 "Entangled States of Matter".

### YOUR TASKS

- » The successful candidate will work on Tensor-Network exploration of entanglement structures in strongly-correlated systems (including classical-to-quantum crossovers). Exchange with other working groups within the Collaborative Research Center TR183.

### YOUR PROFILE

- » A successful completion of studies in theoretical physics (Master-degree or its equivalent) is required. Strong dedication and good communication skills are crucial criteria. A solid background in some of the following fields is wished: (1) tensor networks, (2) many-body lattice systems, (3) topological matter and/or spin-liquids, (4) entanglement in condensed-matter systems.

### WE OFFER YOU

- » scientific research in an attractive environment with intense international collaborations — the CRC sponsors exchange stays at other nodes (Berlin, Copenhagen, Rehovot)
- » the possibility to present your research at conferences
- » a diverse and fair working environment
- » support in reconciling work and family life
- » flexible working time models
- » extensive advanced training opportunities
- » occupational health management offers
- » local transport ticket at a discount for UoC employees

The position is available from September 1st, 2020 on a part-time basis (66% during the first year, 75% thereafter). It is initially limited to two years with the possibility of extension. If the applicant meets the relevant wage requirements and personal qualifications, the salary is based on remuneration group TV-L 13 of the pay scale for the German public sector.

The University of Cologne is committed to equal opportunities and diversity. Women are especially encouraged to apply and will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from people with disabilities / special needs or of equal status.

Please send your application with proof of the required qualifications by email (in one pdf file) for the attention to Prof. Dr. Matteo Rizzi ([matteo.rizzi@uni-koeln.de](mailto:matteo.rizzi@uni-koeln.de)) with the reference number Wiss2006-08. The application deadline is July 15th. Later applications will be considered in case the position has not been filled.