

Several open positions available in  
**Condensed Matter Theory**

at the Institute for Theoretical Physics A of the RWTH Aachen University  
and the Institute for Solid-State Research at the Research Center Jülich.

**One postdoc position**

(salary class TV-L E13) initially offered for one year with a possible extension

and **Three PhD student positions**

(up to salary class 3/4 TV-L E13) typically running for three years.

Various topics are proposed:

- Non-equilibrium noise in nanosystems with time-dependent driving
- Heat-, photon- and electron-currents in molecular quantum dots (German Priority Program SPP-1243)
- Hybrid quantum dot systems with normal, ferromagnetic and superconducting electrodes.

The positions are offered within three different research groups at the Institute for Theoretical Physics A of the RWTH Aachen University. Prof. H. Schoeller, heading the Institute, focuses on development and application of nonequilibrium RG methods. Prof. Janine Splettstoesser is leading a junior research group focusing on dynamics of nanoscale devices. The Helmholtz-University junior group in Jülich of Prof. Maarten Wegewijs is closely connected within the framework of the Jülich-Aachen Research Alliance (JARA-FIT) and deals with quantum transport through single-molecule devices. The three groups are actively collaborating and joint projects are envisaged involving combinations of the above topics.

Our research focuses on quantum dot systems realized in various materials (from heterostructures down to single molecules) where local interactions, strong tunneling and quantum interference effects dominate. Within the framework of the Institute for Theoretical Physics at RWTH Aachen a wide ranged platform is provided for research activities in mesoscopic physics, spintronics, molecular electronics, quantum information processing, quantum field theory and renormalization group in nonequilibrium, and strongly correlated systems. In these fields three professors (V. Meden, H. Schoeller, C. Honerkamp) and three junior-professors (S. Andergassen, J. Splettstoesser and M. Wegewijs) are active using modern analytical as well as numerical techniques.

Candidates should have a strong background in mesoscopic physics or alternatively in strongly correlated electron systems. They should be familiar with techniques of quantum many-body physics and interested in learning new approaches. For any of the announced positions please send your application, including a short CV, describing your research interests and plans, and a list of publications to:

splett@physik.rwth-aachen.de (electronic submission preferred)

or

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