



OIST

OKINAWA INSTITUTE OF SCIENCE AND TECHNOLOGY GRADUATE UNIVERSITY

## Postdoc positions in condensed matter theory

There are several openings for junior (less than 5 years after PhD) as well as senior (more than 5 years after PhD) postdoctoral researchers available in the newly established Quantum Transport and Electronic Structure Theory Unit (QTESTU) at Okinawa Institute of Science and Technology Graduate University (OIST).

Research in the QTESTU is headed by Prof. Fabian Pauly and covers a broad range of topics in condensed matter theory. Work ongoing or planned is related to quantum transport of charge and heat, molecular electronics and nanoelectronics, nanoscale thermoelectricity and nanophononics, current-induced atomic motion, polaron transport, electronic correlations, superconductivity, magnetic nanostructures, excited states and hot carrier dynamics. We address these problems by using both analytical and numerical techniques of solid-state physics. Frequently, we model material-specific aspects through ab-initio electronic structure theory, in particular density functional theory and many-body perturbation theory. We actively develop electronic structure methods to make advances in the description of the systems and in the properties mentioned above. In addition, we pursue the general goal to close existing gaps between solid state and quantum chemistry communities. Beyond purely theoretical projects, the research unit maintains close collaborations with leading international groups in the respective research fields.

Applicants are ideally expected to have both a strong analytical and numerical background, including experience with development and application of ab-initio electronic structure techniques. But also strong candidates with exclusive experience in either analytics or numerics will be considered.

Start date is as early as possible. Appointments are initially for 2 years with the possibility of extension by 1 year upon mutual agreement. OIST pays on a competitive scale with additional benefits including health insurance, access to on-site child care, support for relocation and housing allowance.

To apply, please send the following documents to [qtestu-recruiting@oist.jp](mailto:qtestu-recruiting@oist.jp):

- cover letter (1-2 pages), stating your motivation to apply,
- research statement (1-2 pages), outlining your research plans at OIST,
- curriculum vitae, including publication list,
- undergraduate and postgraduate details and transcripts,
- contact information of at least 2 referees, one of which should be a previous employer.

For primary consideration, please submit all your material before 15 May 2018. Applications arriving later will be considered until the posts are filled.

OIST Graduate University is an equal opportunity, affirmative action educator and employer, and is committed to increasing the diversity of its faculty, students and staff. The university strongly encourages women and minority candidates to apply.

Further details about the QTESTU and the positions: [www.oist.jp/qtestu](http://www.oist.jp/qtestu)

Details about the university: [www.oist.jp](http://www.oist.jp)

