

Focusing Expertise – Shaping the Future: The Jülich Aachen Research Alliance (JARA) is an innovative cooperation model between RWTH Aachen University and Forschungszentrum Jülich. This Alliance brings together an internationally respected university of science and technology and one of the leading national research centres in Europe.

As a member of the Helmholtz Association, Forschungszentrum Jülich makes an effective contribution to solve major challenges facing society in the fields of information, energy, and bioeconomy. They focus on varied tasks in the area of research management and utilize large, often unique, scientific infrastructures. Come and work with around 6,100 colleagues across a range of topics and disciplines at one of Europe's largest research centres.

As one of Germany's Universities of Excellence, RWTH enjoys a global reputation for high-quality teaching and research. The university seeks to drive the convergence of knowledge, methods and findings from its different research fields and to integrate this in-depth knowledge into its interdisciplinary profile areas. RWTH's dynamic and creative environment is characterized by efficient networks, institutionalized collaboration and the strong innovative capacity of RWTH Aachen Campus, one of the largest technology-oriented research landscapes in Europe.

The research performed at the Peter Grünberg Institute (PGI) ranges from physical concepts and emerging materials to novel nanoelectronic devices. It is an active partner in the Cluster of Excellence "Matter and Light for Quantum Computing" (ML4Q; cooperation by the universities of Aachen, Cologne, and Bonn, as well as the Research Centre Jülich) and the European "Quantum Flagship". Supported by the Jülich Supercomputing Centre (JSC) and the Helmholtz Nanoelectronic Facility (HNF), a 1000 m² clean room, PGI will further strengthen its activities on quantum information. It anticipates the next level by harbouring the Helmholtz Quantum Center (HQC), home of the newly founded institute on quantum computing. In this context RWTH Aachen University and Forschungszentrum Jülich are jointly seeking a

Director for the PGI – Institute for Quantum Computing (PGI-13) appointed as Professor for Quantum Computing (W3, Jülicher Modell) at RWTH Aachen University, Department of Physics

In close cooperation with other national and international groups we are initiating a center of expertise on fundamentals of quantum computing. Within this effort the goal of the new institute is the development of experimental quantum processors. The focus should be on multi-qubit circuits using scalable solid state qubits. Areas of interest include the coupling of qubits, high fidelity and scalable qubit control, as well as system integration. The institute should seek strong synergies with existing initiatives within JARA, the planned Helmholtz Quantum Center and the Cluster of Excellence ML4Q.

Teaching requirements (2 hours/week) could, for example, be fulfilled with courses in quantum science and technology within the physics programs at RWTH Aachen. A doctoral degree and an exemplary record of research achievements at the group leader level are required.

RWTH Aachen University and Forschungszentrum Jülich are equal opportunities employers and pursue a policy of excluding all types of discrimination. Applications from women scientists are particularly welcome. Applications from women will be given preference in the case of equal suitability, qualifications and experience, unless special reasons concerning the person of a male candidate outweigh these considerations. Both institutions also are family- and disability-friendly and offer support for dual career couples.

Applications should be in English and should be sent with the usual documentation (CV, copies of certificates, list of publications, teaching experience, brief summary of previous research activities including a list of third-party funding, research concept for the advertised position), by the 15-12-2019, to (e-mail preferred):

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and **Dean of the Faculty of Mathematics, Computer Science and Natural Sciences at RWTH Aachen University, Prof. U. Simon**
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Further information can be found at: www.jara.org/jara-fit/PGI-13

