TECHNISCHE UNIVERSITÄT WIEN
Vienna University of Technology

QAFM

Doctoral Student Position
Quantum Microelectromechanical Systems

TU Wien is located in the heart of Europe, in a cosmopolitan city of great cultural diversity. Our identity as a research university means that we build our reputation through our research. TU Wien combines basic and applied research and research-oriented teaching at the highest level.

The Institute of Sensor and Actuator Systems is seeking a doctoral student for 3 years (starting April 1, 2019) for the EU FET Open Project QAFM.

The Project

Micro- and nanoeletromechanical systems (MEMS/NEMS) have recently entered the quantum regime. In the EU FET Open project QAFM we will built on this development to radically improve the image acquisition speed and information content of atomic force microscopy, a key tool in nanoscience. The project will be focused on the design and the fabrication of a quantum-limited atomic force microscopy sensor. Moreover, we will explore new sensing methods inspired by recent developments in quantum MEMS/NEMS. For more information about the project visit www.qafm.eu or contact Dr. Daniel Platz (daniel.platz@tuwien.ac.at).

Your Profile

For this highly interdisciplinary project we are looking for a motivated PhD student fulfilling these requirements:

- MSc degree or comparable degree in physics, material science, mechanical or electrical engineering or in a related subject
- Expertise in scientific programming with languages like Python, C/C++, Matlab or Julia
- Knowledge in MEMS/NEMS, micro- and nanofabrication, quantum physics or atomic force microscopy is considered a plus
- Solid written and oral communication skills in English

Quantum-Limited Atomic Force Microscopy

The QAFM Project is supported by the European Union with an FET Open grant

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Our Offer

The successful candidate will work in the group of Prof. Ulrich Schmid at the Institute of Sensor and Actuator Systems located in the center of Vienna. The PhD student will be part an international environment with excellent infrastructure. You can find more information about the group and the institute at mst.isas.tuwien.ac.at. Moreover, the PhD student will also interact closely with the other international partners in the project.

The position is fully funded for the whole duration of the project according to EU guidelines.

Your Application

We invite highly qualified and motivated students with a strong interest in micro- and nanomechanics to send an application in a single pdf file containing

- A letter motivating the application (cover letter)
- Curriculum vitae
- Grade transcripts and BSc/MSc diploma

by email to Mrs. Martina Bittner (martina.bittner@tuwien.ac.at).

Application deadline is February 28, 2019.

Candidates may apply prior to obtaining their master's degree, but cannot begin before having received it.

Candidates are not eligible for a refund of expenses for travelling and lodging related to the application process.

TU Wien intends to increase the number of women on its faculty and therefore specifically invites applications by women. Among equally qualified applicants women will receive preferential consideration.

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