



The Automation and Control Institute at TU Wien is seeking applicants for a

PhD-Position (m/f/d):

“Control theory and engineering in quantum systems”

You can expect:

As a member of the Complex Dynamical Systems Group (**Prof. Andreas Kugi**), you will work at the interface between physics, information theory and control engineering together with an **international team of scientists** to develop control algorithms and apply them to cutting-edge lab experiments together with our collaborators.

Tasks:

- Mathematical modeling and simulation of specific experimental setups from quantum optomechanics to ultra-cold atom gases
- Formulation and analysis of the involved control problems and their solution based on tailored control strategies
- Implementation and validation of control algorithms on experiments using real-time hardware
- Provide system-theoretic guidance to improve the performance of existing or future experiments

Your profile:

- Completed study (master level) in mathematics, control engineering, physics, computer science, mechatronics, electrical engineering, mechanical engineering or similar
- Strong interest in (quantum) physics and control
- High motivation and readiness to contribute to the academic teaching
- Committed and reliable team player with an independent and precise way of working
- Excellent command of the English language required, good command of the German language beneficial

Our offer:

- Research in an interesting and interdisciplinary field between science and engineering
- Opportunity to write a PhD thesis and participate in international scientific conferences
- Close supervisory relationship and intense dialogue in a dynamic and highly motivated team
- Three-year fixed term contract (40h/week) with the option for prolongation
- Gross salary of € 42.820,40 p.a.

We are looking forward to receiving your application including the usual documents via e-mail sent to ochsenreiter@acin.tuwien.ac.at. If you have any questions, please contact Prof. Andreas Kugi kugi@acin.tuwien.ac.at. Further information about the Complex Dynamical Systems Group can be found at <https://www.acin.tuwien.ac.at/komplexe-dynamische-systeme-cds/>

Who we are

The Automation and Control Institute is part of the Faculty of Electrical Engineering and Information Technology at TU Wien. With a team of more than 90 staff members, the institute performs basic research, solves challenging real-world research questions in numerous co-operations with industry, develops innovations and offers a research-oriented education in the field of system technology and automation.