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Vienna University of Technology



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Call for Applications

to the

Vienna Doctoral Program

on

Complex Quantum Systems



Vienna 2010

The **Vienna Doctoral Program on Complex Quantum Systems** calls for applications to the doctoral program in experimental and theoretical quantum physics. Research opportunities are in the fields of

- Atomic, molecular & optical quantum physics
- Fundamental tests of physics
- Quantum information, communication & cryptography
- Matter wave interferometry with atoms, molecules and large clusters
- Quantum technology on the nanoscale
- Quantum physics in solids & semiconductor nanostructures
- Cold quantum gases & atom chips
- Entanglement of massive particles
- Strongly correlated quantum systems

For details of the ongoing program, see: www.CoQuS.at

Faculty on the doctoral program

The following faculty members are currently members of the doctoral program and will serve as thesis supervisors:

- Prof. Markus Arndt, University of Vienna
- Prof. Markus Aspelmeyer, University of Vienna
- Prof. Caslav Brukner, University of Vienna
- Prof. NN, Vienna University of Technology (to be filled in soon)
- Prof. Jörg Schmiedmayer, Vienna University of Technology
- Dr. Thorsten Schumm, Vienna University of Technology
- Prof. Karl Unterrainer, Vienna University of Technology
- Prof. Frank Verstraete, University of Vienna
- Prof. Anton Zeilinger, University of Vienna

Associated members:

- Prof. Peter Zoller, University of Innsbruck
- Dr. Klemens Hammerer, University of Innsbruck

The doctoral program is closely linked to several FWF funded and ERC excellence programs, to the Austrian Academy Institute of Quantum Optics and Quantum Information (IQOQI), to several European networks and many international collaboration projects.

Your benefit

The Vienna graduate school guarantees full financial support on a 12-month basis for up to three years. Doctoral students admitted to the CoQuS program will have a regular employment at either the University of Vienna or the Vienna University of Technology. The modalities of payment follow the rules laid out by the Austrian Science Funds, (www.fwf.ac.at) and the two host universities. The employment includes

- A gross salary of about **1850 €/month** (14 times per year):
Tax, health insurance and social insurances will be automatically deducted from this amount by the University
- The tuition waiver

Additionally the graduate program will provide some support for

- Travel to scientific work shops, schools and conferences
- Exchange programs with a various top universities around the globe
- Soft skill trainings & language courses

The number of places in this excellence program is limited to not more than ten new students per year. The faculty members will select new students independent of their country of origin according to their academic excellence, previous scientific achievements and expected potential for future research.

Students are requested to submit all of the following documents.

Student application checklist

All of the following application documents shall be sent:

- Completed **admission form**: please download from www.coqus.at/admission
- Curriculum vitae (**CV**)
- **List of publications**, posters and talks (if already applicable)
- **All graded study records** (if you feel it helps, even down to high school)
- **Expressions of interest**: why do you feel to be the right person for CoQuS?
- Information about the candidate's **competence in English** (TOEFL or others).

We ask the applicants to submit **all above mentioned documents as a single PDF File** to Canan.Goeser@univie.ac.at.

All documents should be in English. German certificates do not need to be translated.

In addition:

At least **2 letters of recommendation** will be required. They will only be accepted if they are sent by the recommenders themselves (not the students!) to the CoQuS secretary Ms. Canan Göser: Canan.Goeser@univie.ac.at

Dates and deadlines

- Application deadline for a start in October 2010 is April 15th, 2010.
- Applicants will be pre-selected on May 17th 2010 and pre-selected candidates will be invited to present themselves in Vienna on June 14th 2010. Details of the June selection will be communicated in time.
- Start in the program is with the new semester on October 1st 2010.

Gender Mainstreaming

We seek to increase the percentage of women in physics. The CoQuS faculty therefore explicitly encourages qualified female students to apply.