



TECHNISCHE  
UNIVERSITÄT  
WIEN  
Vienna University of Technology

## Position for a PhD student at TU Wien

Vienna, March 2020

### **Neutron scattering investigations of correlated materials**

Correlated electron systems are a vibrant frontier in modern condensed matter physics. Electron correlations often stabilize exotic phases, including various kinds of magnetism and superconductivity. Recently, effects of nontrivial electronic topology further enrich this landscape. Neutron scattering experiments are ideally suited to probe these phases and their excitations.

In this PhD work selected single crystals of intermetallic compounds (quantum critical heavy fermion systems, Weyl-Kondo semimetals, correlated thermoelectrics) shall be studied, with focus on inelastic neutron scattering experiments at the Institut Laue-Langevin (ILL) in Grenoble. In addition to the neutron scattering experiments, the successful candidate will also contribute to the growth and in-lab characterization of the crystals.

We seek for a candidate with an excellent background in solid state physics, very good experimental skills and, ideally, some knowledge/experience in (neutron) scattering experiments.

To apply, please send an email containing a CV, a list of publications and presentations, a short statement of research experience and interests, and two letters of recommendation (emailed separately by the writers) to:

Prof. Dr. Silke BÜHLER-PASCHEN  
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**Working place:** The PhD work will be carried out mostly in Vienna. For beamtimes (typically 1-2 weeks, several times per year) the candidate is expected to travel to the facility.

**Starting date:** As soon as possible.

**Application deadline:** Applications will be considered until the position is filled.

**Salary:** About 2200 EUR gross salary/month, 14 times per year, in accordance with the Austrian Collective Agreement for University Staff.