



Vienna, August 2018

Position for a PhD student at TU Wien

Growth of intermetallic compounds by molecular beam epitaxy and their characterization

Reducing the geometrical dimensionality of a material can lead to new phenomena not expected in the bulk. In addition, a number of measurement techniques are available for thin films that cannot be used on bulk samples. After our recent success in the growth of the heavy fermion metal YbRh_2Si_2 we are now extending growth efforts to other intermetallic compounds, with emphasis on the combination of strong electronic correlations and topology.

The PhD project will consist of growing thin films of selected heavy fermion materials using the technique of molecular beam epitaxy in the cleanroom facility of the Center for Micro- and Nanostructures, characterizing the grown samples structurally and chemically, and performing various physical property measurements. The data analysis and interpretation will be done in collaboration with theorists whenever appropriate.

The successful candidate will have an excellent background in solid state physics, and very good experimental skills.

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
Institute of Solid State Physics
Vienna University of Technology
Wiedner Hauptstr. 8-10
1040 Vienna
AUSTRIA
paschen@ifp.tuwien.ac.at
+43 (0)1 58801 13716

Starting date: As soon as possible.

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

Salary: About 2050 EUR gross salary/month, 14 times per year, in accordance with the Austrian Collective Agreement for University Staff.