
POSTDOCTORAL SCHOLARSHIP

Material physics with a focus on computational design

Where?

Department of Physics and Astronomy at Uppsala University, Sweden.

Position

A postdoctoral fellowship (stipend, 100%) with time limitation (2 years) starting as soon as possible.

The group:

Dr. Heike C. Herper's research is part of the Division of Materials Theory at Uppsala University (<https://www.physics.uu.se/research/materials-theory/>). The focus of Heike Herper's work lies on computational design of functional materials based on ab initio methods combined with atomistic simulations with a strong focus on magnetic materials such for permanent magnets, magnetic cooling, or molecular magnets.

The project:

Predicting new materials for permanent magnets and new data storage devices is the goal of the project. We will tackle this challenge using high throughput calculations based on density functional theory in combination with spin dynamic methods. In the present project we focus on transition metal based Heusler alloys since their structural and magnetic properties can be tuned by composition which is ideal for our goals.

Your Qualifications:

You should have a Phd in Physics or Materials Science and strong background in quantum mechanics and condensed matter physics. Extensive experience in using DFT methods is required as well as good skills in English and the ability to work in a team.

Application instructions:

The application should consist of a **single pdf-file** which must contain

- Motivation letter (max. 2 A4 pages)
- CV with publication list included
- Proof of PhD exam
- 2 recommendation letters and contact information (email, phone number, address) of two referees
- **APPLICATION DEADLINE:**
10/05/2021

Mail application to :

Heike.Herper@physics.uu.se