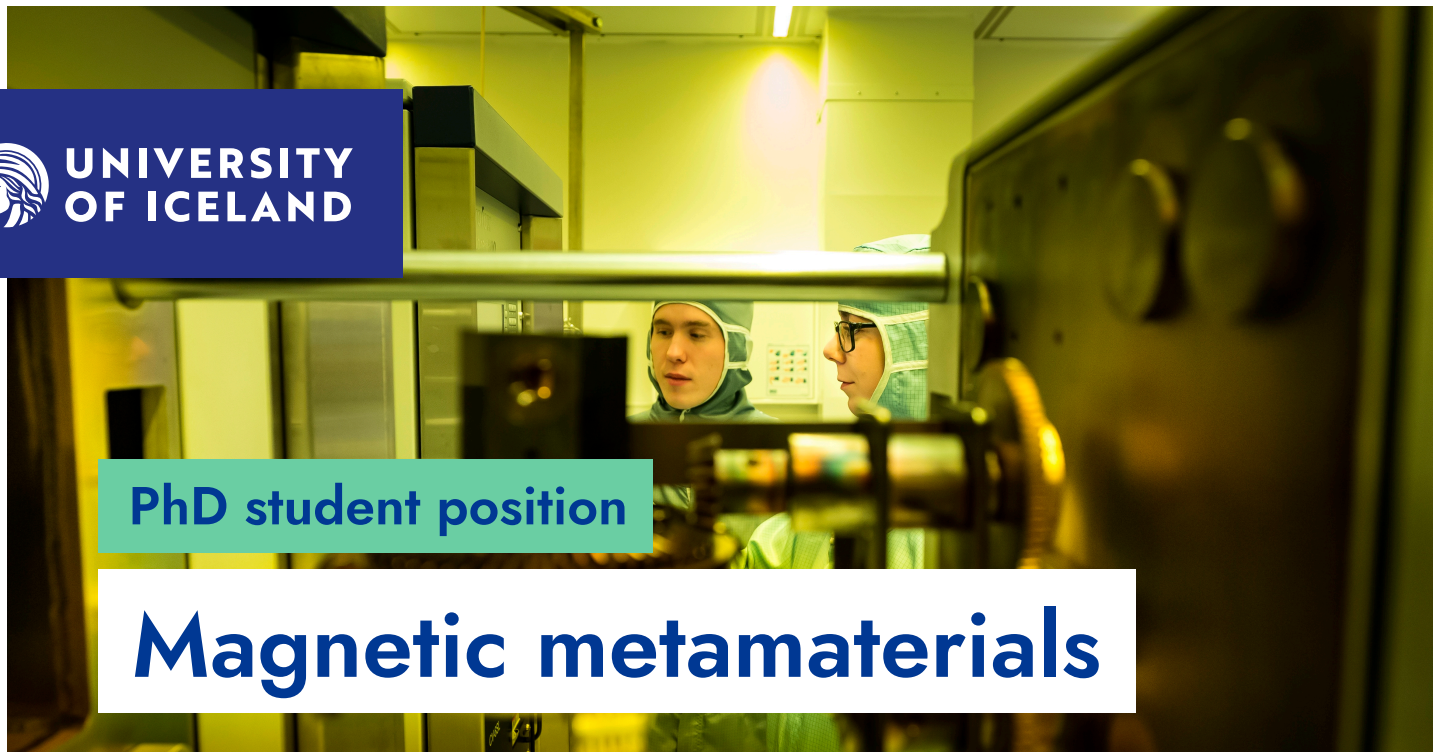
UNIVERSITY OF ICELAND



PhD student position

Magnetic metamaterials

PhD student position available

The Faculty of Physical Sciences seeks applicants for a PhD student position within the field of magnetic metamaterials. The position is funded for three years by the Icelandic Research Fund. Magnetic metamaterials feature in various emerging technologies including artificial spin ice and brain-inspired computing, where coupled magnetic nano-oscillators are used to mimic the neurons in our brains. Such neural networks are highly efficient at recognition, classification and prediction tasks and could consume less energy in performing these tasks than current computing schemes. Within this project the student will work on the development of an experimental framework for the control of magnetic ordering and dynamics in magnetic metamaterials. The student will explore ways to utilize collective phenomena in systems composed of magnetic islands arranged in specific patterns, which exhibit magnetic properties beyond those of their individual constituents. The work will involve thin film deposition and patterning, as well as structural and magnetic characterization of magnetic films and nanostructures at local and international facilities. The student will be expected to communicate results at conferences and in scientific journals.

The research group

The supervisors will be Dr Unnar Arnalds and Dr Snorri Ingvarsson, Professors of Physics at the Faculty of Physical Sciences, and Dr Fridrik Magnus, Research Professor at the Science Institute. The PhD work is part of a larger grant of excellence project which employs 3-4 other PhD students and postdocs.

Qualification requirements

- MSc degree in physics, applied physics, materials science, or related fields.
- Experience of thin film growth, patterning or magnetic characterization is preferable.
- The applicant must be able to work independently and as part of a team.
- Proficiency in written and spoken English.

How to apply

Applications should be submitted through the University's online application system accessible via the link https://euraxess.ec.europa.eu/jobs/210273. Applications shall include:

- A cover letter describing the student's research interests and reasons for applying (1 page maximum).
- Curriculum vitae (3 page maximum).
- Copies of university diplomas (BSc and MSc) and course listings with grade information (in English).

Application deadline — April 22nd 2024

For more information contact Fridrik Magnus (fridrikm@hi.is), Unnar Arnalds (uarnalds@hi.is) or Snorri Ingvarsson (sthi@hi.is).