

Postdoc Position in Nanoscale Magnonics

The Nanomagnetism and Spintronics (NanoSpin) group at the Department of Applied Physics is looking for a highly motivated postdoctoral researcher to work on magnetic phenomena in the subfield of magnonics. The project aims at **active control of spin waves in nanoscale magnonics**, which is relevant for the development of energy-efficient analog computing devices. The project is mostly experimental (high-quality thin-film growth, lithography, high-frequency electronic and magneto-optical characterization) but also includes complementary modeling (micromagnetic simulations, plane-wave method calculations, electromagnetic simulations of high-frequency electronic components). Previous background in experimental nanomagnetism and magnonics is essential.

REQUIREMENTS

We are looking for a bright and motivated postdoc with an excellent record in the field of the position. Good command of English (both verbal and written) and demonstrated ability to disseminate scientific results are mandatory requirements for the position. Applicants must be motivated to conduct research at the highest international level with the aim at publishing high-impact articles.

SALARY AND WORKING TIME

The salary ranges from 3500€ to 3900€ per month, depending on previous experience. Following the standard practice in the Department of Applied Physics, the contract will initially be made for 2 years.

PLACE AND INFRASTRUCTURE

As a postdoc, you will join the NanoSpin research group at Aalto University (<http://physics.aalto.fi/en/groups/nanospin/>). The group focuses on cutting-edge research on electric-field controlled magnetism, magnonics, and magneto-plasmonics in hybrid nanoscale structures. The NanoSpin laboratory is equipped with instrumentation for nanomaterial fabrication and advanced electronic, magnetic and magneto-optical characterization. Besides, you will have full access to the OtaNano research infrastructure for nano- and microtechnologies, comprising state-of-the-art equipment for nanofabrication and microscopy (<http://otanano.aalto.fi/en/>). As a PhD student in the NanoSpin group, you will be part of a vibrant and multidisciplinary research community. The project is funded by the Academy of Finland and involves national and international collaborations.

Aalto University has six schools with nearly 11 000 students and 400 professors. It is the largest university in Finland focusing on education and research and technology, science, business, and arts. The NanoSpin group is located on the Otaniemi campus in Espoo (10 km from the city center of Helsinki), which is one of the largest hubs of high-tech in Northern Europe.

HOW TO APPLY

To apply, please contact Prof. Sebastiaan van Dijken (sebastiaan.van.dijken@aalto.fi). The following documents should be included:

- (1) Letter of motivation
- (2) CV including list of publications
- (3) Contact details of at least two referees (or letters of recommendation, if already available)

ABOUT FINLAND

As a living and work environment, Finland is consistently ranked highly in quality-of-life and competitiveness studies. It is the happiest place in the world according to a 2018 World Happiness Report. Finland is the most stable, freest and safest country in the world in 2018. Helsinki is the third best city in the world to live in according to a 2016 report by Metropolis magazine. Finland has also been ranked 10th in the Global Competitiveness Index 2017-2018 of the World Economic Forum.