



Postdoctoral Researcher in School of Science



Aalto University



Aalto University

Aalto University is a multidisciplinary community of bold thinkers where science and art meet technology and business.

Aalto University has six schools with nearly 11 000 students and more than 400 professors. Our campuses are located in Espoo and Helsinki, Finland.

Aalto University is a university where research, art and education are promoted hand in hand. We are committed to high-quality research with significant impact on the international scientific community, industry and business, as well as the society at large. Aalto's unique profile stimulates collaborations between disciplines and facilitates new innovations.

Aalto is an international community: more than 30% of our academic personnel have an international background. Disciplinary excellence is combined with multidisciplinary activities, engaging both students and the local innovation ecosystem.

Aalto University was founded in 2010 as three leading Finnish universities, Helsinki University of Technology, the Helsinki School of Economics and the University of Art and Design Helsinki, were merged.



Aalto University

[More info at
aalto.fi](https://aalto.fi)



School of Science

We aim to change the world for the better through internationally-acclaimed and high-level research and by making a significant impact on society.

The School of Science offers a pioneering and applied approach to multidisciplinary research, which it closely connects to its inspirational teaching. The research conducted at the school meets all the world-class requirements across a range of subject areas. We see it as our mission to boldly and responsibly expand the realms of scientific knowledge and understanding. Hence, our research aims at responding to a variety of sustainable development challenges.

The school strives to educate high-quality experts who have the ability to solve society's increasingly complex problems relating to energy, the environment, wellbeing, and decision-making. Many of our M.Sc. and Ph.D. graduates in technology go on to work in leadership and expert positions in Finnish and international companies. In recent years many graduates have started their own research based businesses and companies.

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Aalto University
School of Science

**[More info at
sci.aalto.fi](https://sci.aalto.fi)**



Department of Neuroscience and Biomedical Engineering in School of Science

The Department of Neuroscience and Biomedical Engineering (NBE), formed in 2015, combines the former Department of Biomedical Engineering and Computational Science and the Brain Research Unit of the O.V. Lounasmaa Laboratory.

The Department aims at understanding of system-level dynamic functions of the human brain, mind and body. The research, enabled by state-of-the-art technology and computational methods, leads to discoveries and technological breakthroughs that contribute to health and wellbeing.

NBE brings together systems and cognitive neuroscience, biophysics, and biomedical engineering. The levels of description range from molecular and cellular measures to noninvasive neuroimaging and behaviour. New generations of multidisciplinary scientists and engineers are educated by engaging them with cutting-edge science and technology.

Research

The department focuses on biomedical engineering, biophysics, and brain research. We combine experimental and computational methods and develop algorithms as well as new technologies to tackle major problems in human well-being and medical diagnostics. The grand challenges in brain research are in better understanding the function of the human brain in health and disease, as studied in well-controlled and increasingly complex experimental settings, including during social interaction.

Teaching

The Department of Neuroscience and Biomedical Engineering provides courses on Bachelor's, Master's and Doctoral levels. At the Bachelor's level education, NBE contributes to the majors Engineering Physics and Bioinformation Technology. We also supervise Bachelor theses.

At the Master's level education, NBE produces two majors for the Master's Degree Programme in Life Science Technologies: Biomedical Engineering and Human neuroscience and – technology

**[More info at
nbe.aalto.fi](https://nbe.aalto.fi)**



Postdoctoral Researcher of Neuroimaging at School of Science

**We are looking for an exceptional,
multitalented postdoctoral researcher**

**for the "High-resolution
Magnetoencephalography" project**

funded by a grant from European Research Council to prof. Lauri Parkkonen. This position is open at the Department of Neuroscience and Biomedical Engineering, Aalto University School of Science, Finland. The aim of the project is to leverage the benefits of measuring neuromagnetic signals right on the scalp with highly sensitive optically-pumped magnetometers (OPM), establishing a new way of measuring the human brain in action! The project encompasses the entire chain from sensor technology to data analysis and to neuroscientific experimentation. Ideally, the postdoctoral researcher would be able to contribute to all of these stages of the research although the focus should be on OPM physics and technology and on system integration.

A suitable candidate should be highly motivated and research-oriented, and proficiency in English is mandatory. Theoretical knowledge and experimental skills for laboratory work related to quantum optics, electromagnetic fields, electronics, and analysis of multidimensional data are highly relevant. Basic neuroscience knowledge, MEG/EEG expertise, and Python and/or Matlab programming skills would be additional merits.

In addition to research work, the postdoctoral researcher is expected to participate to the supervision of students and teaching related to his/her expertise and research topics. The employment contract is typically for 1–2 years, with an option for renewal. The salary level for a postdoctoral researcher is competitive, and depends on experience and qualifications. The contract includes occupational health services.

How to apply

Please apply via electronic recruitment system Saima. Please attach to your application your CV, list of publications, motivation letter and contact details of referees. The position is open until a suitable person is found.

Additional information

For additional information please contact Professor Lauri Parkkonen lauri.parkkonen@aalto.fi

The position is located in Aalto University Otaniemi campus, that is currently being ambitiously built into a collaboration hub for research, art and innovation.

**[More info at
aalto.fi/en/about/careers/jobs/](https://aalto.fi/en/about/careers/jobs/)**



Living in Finland

Finland = innovative and bold, international at heart.

We are a humble people, but dare to say we have the **best education system** in the world.

The values of **equality and co-operation** are rooted deeply into our society. We have freedom of speech and consider the many voices in our society a strength that enriches our lives.

With high investments in R&D, a strong innovation culture, open data and advanced state of digitalization, we are a nation of **innovation and entrepreneurship**.

Gender equality, flexibility and low hierarchy are at the core of our **Nordic working culture**. Professional ambition can easily be combined to living a good balanced life.

We are a **reliable and stable** nation with low levels of corruption and high level of safety and social security. In Finland, everything just works.

We have four seasons, clean air and delicious tap water. We love nature and take good care of it to keep our environment **fresh and clean**.

It's hard to find a non-English speaker in the Capital area. We have an **international mindset** and besides ourselves when meeting a foreigner in Finland.

[More info at
finland.fi](https://finland.fi)

**Aalto University –
a community of
game changers
*aalto.fi***



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