Student needed!

Join the Finnish Academy Fellowship project "Geometric Methods in Elasticity" led by Dr. Aleksis Koski, at the *Department of Mathematics and Systems Analysis* in Aalto. The project is looking to hire a highly motivated student member as part of the team, starting from the academic year 2023-2024 and lasting up to four years.

Requirements. This recruitment is mainly aimed towards students looking to choose a topic for their master's thesis or those already searching for a PhD thesis advisor.

- In case of a master's student, Aleksis will gladly provide you a topic for your thesis at your earliest convenience. The project will then hire you as a research assistant for a period of time during spring or summer 2024 to work on your thesis. Should you then wish to start your doctoral studies under the project, there will be a performance review to decide this.
- In case of an applicant looking for a doctoral student position, the earliest starting date is 1.1.2024. During the project period (which lasts until 31.8.2027) you can expect full funding for your PhD studies under Dr. Aleksis Koski as well as travel funding for conference visits and other academic trips.

Project area. The project "Geometric Methods in Elasticity" specializes in the interplay between geometry, topology, and analysis within the study of the mathematical models that govern the behaviour of elastic bodies. Though our underlying motivation comes from the study of natural phenomena, this is a project in **pure mathematics** that combines ideas from areas such as *Geometric Function Theory*, *The Calculus of Variations*, *PDE's*, and *Complex Dynamics* to solve simple-to-state but challenging-to solve-problems in the field of *Nonlinear Elasticity* such as:

When can we approximate a homeomorphism in the Sobolev space $W^{1,p}$ with diffeomorphisms?

As part of the project, expect to take a deep dive into these areas and be part of creating new topological and geometric methods to solve open problems that tie in to contemporary research topics in analysis.

Applying. To apply for the position, please E-mail your information to Aleksis at aleksis.koski@gmail.com along with a CV and/or a brief description of yourself and why you would be suitable for the position. Further inquiries may be sent by E-mail as well.