



 **FABRICE BARBE**

From France to Finland 

Project: Lightweighting of lattice structures

Research topic: **Engineering**

Finnish Institution: **Aalto University**

French Institution: **INSA Rouen Normandie**

Dates of mobility: **24/10/2022 to 28/10/2022**

Program: **Maupertuis Programme**



## PRESENTATION

[Fabrice Barbe](#) is a PhD of [Mines Paristech](#) in Paris. He is currently Associate Professor at [INSA Rouen](#). His research activities are conducted within the “[Groupe de Physique des Matériaux](#)”, a research unit under the joint supervision of INSA Rouen, University Rouen and the French Research Center [CNRS](#). His research focuses on a large part on computational modelling in mechanics of materials. His research topics include: multi-scale modelling of materials mechanics (metals, laminated composites and thermoplastic polymers), polycrystalline plasticity, phase transformations in steels. Since 2017 he has extended his research activities to process-properties relationships in additively manufactured polymers and metals.

## ACTIVITIES IN FINLAND

At [Aalto University](#), and with the researcher [Luc St-Pierre](#), Fabrice Barbe met [Milad Omid](#), PhD student, and [Chen Ling](#), post-doc. The subject of discussion was on fracture mechanics of cellular materials. This has given the opportunity to identify precisely how to reinforce and develop the ongoing collaboration on this topic. He also met [Juhne Lian](#), Assistant Pr., followed by a visit of the [Solid Mechanics lab](#). This event allowed to have an overview of all the activities in Solid Mechanics. He met [Jukke Tuhkuri](#) who presented the very Aalto-specific topic of the mechanics of ice. Then Fabrice Barbe gave a seminar to an audience of researchers and PhD students on the topic of microstructure-based modeling. The course of the visit has enabled to have a comprehensive view on the activities in Solid Mechanics in Aalto University and to either reinforce ongoing collaborations or develop new ones.