

Postdoctoral Fellowships

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CALL FOR APPLICATIONS 2025 – FELLOWS

Supervisor	Anniina Salonen
Supervisor page	https://www.simm.espci.fr/-Anniina-SALONEN-133html
Host Institution	Centre National de la Recherche Scientifique (CNRS) <u>https://www.cnrs.fr/en</u>
Research Lab	Soft Matter Sciences and Engineering Laboratory https://www.simm.espci.fr/-Homehtml

Project Title

Foam from complex fluids: capillarity vs. elasticity

Project Description

In recent years there has been growing interest in "elastocapillary" foams, where bubbles are embedded in a soft solid. The properties of such foams are controlled by a competition between surface effects and bulk rheology (capillarity vs. elasticity), which can lead to a novel class of structural evolution and bubble topology. Our objective is to rationalize the relation between the rheological properties of the continuous phase and the dynamics of the system.

Keywords

soft matter, viscoelastic fluid, foam

Description of the Host Research Lab

Deformability — the ability of a material to change shape — is a key property in a very wide range of phenomena such as the debonding of an adhesive tape, the shaping of a solid by drip casting or the flow of a liquid through a porous medium. At SIMM, we investigate how complex liquids and soft solids form and... deform.