

A PhD position on the physics of drying suspensions

is available at the

Institute for Multiscale Simulation
at the Friedrich-Alexander-University Erlangen-Nürnberg
www.mss.cbi.fau.de

environment

At the MSS, we investigate the multiscale physics of particulate systems. The MSS hosts an interdisciplinary research team with a unique combination of scientists working numerically, theoretically and experimentally.

topic

Drying suspensions display a fascinating network of cracks on drying. The cracks result from a number of complex interactions: The particles are concentrated into a close packed array due to the evaporation of the fluid. Further drying results in a network of particles which are interconnected by liquid menisci. These menisci exert compressive capillary forces on the particle network which eventually lead to the formation of cracks. The aim of the project is to understand the cracking dynamics of drying suspensions by means of multiscale simulations. Applications include the development of novel process strategies for printing electronic circuits.

profile

You are highly motivated and you are deeply committed to research. You are able to work independently and as part of a team. You are equipped with an analytical and critical mind-set and you communicate clearly and concisely.

qualification

- master's degree in physics or related
- background in computational physics
- programming skills (e.g. C++, Python, Matlab)
- experience in particle simulations (e.g. DEM)

application

- one single pdf including your research statement, your CV and, if applicable, a list of your publications
- Please send your application to Prof. Thorsten Pöschel mss-recruitment@fau.de by October 25, later applications will be considered until the position is filled.

