# A PhD position on the
# weissenberg effect in granular matter

**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

In driven granular systems even simple local particle interactions can lead to the formation of many-faceted, often unexpected structures on the global scale. An example is the Weissenberg effect in sheared granular matter where secondary flows that deviate from the original shearing direction lead to elevations and dips on the surface of the granulate. The underlying mechanisms play an important role in, e.g., technological transport processes and geology. The aim of the project is the characterization of the granular Weissenberg effect by means of numerical simulations and theory. The simulative/theoretic work is directly related to experimental work by the group of Prof. Ralf Stannarius from U. Magdeburg, Germany.

## 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
  applications will be considered until the position is filled.

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Institute for
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MSS