# **Rheology of Micro Particulate Suspensions**



## Bachelor-, studies-, master thesis

Two types of work are available. On the one hand, experimental work can be carried out. For this purpose, model particles have to be produced and characterized with the help of the numerous devices of the PVZ. On the other hand, numerical work can be carried out. Here, the focus is on programming and simulations.

### Work packages:

- Experiments: Design and implementation of parameter studies in grinding and spray drying
- Simulations: Implementation of contact models and investigation of these with coupled CFD-DEM simulations

#### Methods:

- · Spray drying, SEM, grinding, particle size analysis, and more
- Programming languages: C++ and Python
- Simulation software: LIGGGHTS and OpenFOAM

## Ion-adsorption interactions Momentum exchange, Water Electrostatic, van der Waals (dissolution, interactions







precipitation)

#### **Contact:**

Dimitri Ivanov

Tel.: 0531-391-65553

d.ivanov@tu-braunschweig.de









