

Seminar im Rahmen des GRK 2078

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Datum: Di., 26.01.2016

Uhrzeit: 14:00-15:30 Uhr

Ort: Geb. 10.23, 3. OG, Raum 308.1 (KM-Seminarraum)

Titel: Numerical homogenization of the viscosity of a fiber suspension

Abstract

Particle suspensions exhibit a complex and oftentimes anisotropic rheology whose experimental characterization is most challenging. Accurately simulating production processes of discontinuous fiber reinforced composites like injection or compression molding, however, depends crucially on detailed knowledge of the governing constitutive relationships.

In this talk I will discuss the homogenization of viscosity in the incompressible setting from a modern perspective, strongly drawing connections to the prime ideas pervading homogenization in solid mechanics. In particular, I will introduce a powerful and flexible FFT-based homogenization scheme assessing the value of analytical approaches.

Alle Interessenten sind herzlich eingeladen.

Prof. Dr.-Ing. Thomas Böhlke