



# Gastvortrag

Dienstag, 30. Jänner 2024  
Uhrzeit: 10.00 Uhr  
Seminarraum I

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## **Multiphase Bilayered Materials: Asymptotic Rigidity and Homogenization in Single-Slip Finite Crystal Plasticity**

### Abstract:

Multiphase bilayered materials are the constituents of a class of composites made of fine parallel layers of two different kinds. In particular, we work in the single-slip, finite crystal plasticity regime, namely where the materials are made of layers alternatively soft and stiff. In the soft layers a single active slip system with linear self-hardening may occur, while the stiff ones, where the deformation gradient do not have a plastic part, are characterized by two different elastic phases under suitable rank-one connectedness assumptions. After stating the specifics of the model, we will see a study of the asymptotic rigidity of the model and a homogenization result via  $\Gamma$ -convergence.