

Seminar Series of the Graduate School GRK 2078

Referee: **Prof. Mark Kachanov**
Professor of Mechanical Engineering
Tufts University (Boston)

Date: Tuesday, 23/04/2024

Time: 14:30-15:30h

Location: Online / ZOOM

Title: **Heterogeneous materials: Microstructure-property connections and cross-property relations**

Abstract

For materials with cracks, inclusions, pores: we consider relations between the effective properties (elasticity, thermal and electric conductivity) and microstructures. One of the key points is the proper quantitative characterization of microgeometries. We then discuss the connections between the elastic and the conductive properties (cross-property connections) that are derived in explicit for and cover cases of anisotropy. Using them, one can replace measuring the elastic constants by an easier task – measuring the electric conductivities.

You are cordially invited to take part in the event!

Prof. Dr.-Ing. Thomas Böhlke
(Spokesperson of GRK 2078)