

Seminar im Rahmen des GRK 2078

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Datum: Mo., 30.01.2017

Uhrzeit: 14:30 - 15:30 Uhr

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

Titel: A general thermomechanical model for viscoelastic materials and the characterization of polypropylene and unsaturated polyester polyurethane hybrid resin

Abstract

A general thermo-visco-elastic material model for isotropic materials is developed based on the free volume concept. Thermodynamic consistency of the constitutive and evolution equations is ensured by evaluation of the Clausius-Duhem inequality. The material model is numerically implemented in the programming language Python. Polypropylene and unsaturated polyester polyurethane hybrid resin are characterized by creep experiments with the GABO Eplexor R 500N. The material parameters for both materials are determined by numerical optimization using the MIDACO solver.

Alle Interessenten sind herzlich eingeladen.

Prof. Dr.-Ing. Thomas Böhlke