

PHYSIKALISCHES KOLLOQUIUM

Mittwoch, 03.07.2013, um 17:15 Uhr

Ort: Reichenhainer Str. 90; Neues Hörsaalgebäude, Raum: 2/N013



Dr. Sebastian Fähler

TU Chemnitz and IFW Dresden

The material is the machine

Active material exhibits intrinsically the possibility for actuation, sensing, cooling and multifunctionality. This is of particular benefit for microsystems as it allows for a simple and thus scalable design. In my talk I will shortly sketch the underlying physical principles in bulk (magnetic) shape memory alloys, multicaloric and multiferroic materials. The focus will be on the novel possibilities when size approaches the micro- and nanoscale. With some examples I will illustrate that the vision of K. Bhattacharya and R. D. James that “The material is the machine” initiated a scale bridging understanding of these materials from fundamentals towards novel applications.

Alle Zuhörer sind ab 17:00 Uhr zum Kaffee vor dem Hörsaal eingeladen.