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## DK Seminar

Apr 05, 2017, 14:15 - 15:45  
Vienna University of Technology,  
Freihaus, green area, 4th floor, 101C

**Johannes Diermeier**

University of Bonn

### **Energy scaling laws for geometrically linear elasticity models for microstructures in shape memory alloys**

Some minimization problems in the calculus of variations cannot be understood by an explicit description of minimizers, instead one proves asymptotic minimality of test functions, so called “scaling laws”. In the talk we will discuss such scaling laws for a linearized elasticity model for shape memory alloys in which one of the martensitic phases has a small volume-fraction. We generalize recent scalar-valued results to a vector-valued setting, using BD-type slicing results. Since we consider a martensitic nucleus which is completely surrounded by austenite we also observe new energy scalings.