

EINLADUNG

zum

HABILITATIONSVORTRAG

Shokhrukh Kholmatov, PhD

(Fakultät für Mathematik, Universität Wien)

“A unified model for stress driven-rearrangement instabilities: compactness of energy-equibounded configurations.”

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Abstract: We consider a variational model which allows for a unified approach to treat simultaneously several different nonlinear physical phenomena in materials science, such as the epitaxial growth of thin films on an underlying material, the appearance of cracks and crystal cavities in the crystalline bulk material, the delamination and the adhesion with adjacent materials. As customary in the theory of the stress-driven rearrangement instabilities (SDRI) the model is characterized by an energy given as the sum of the elastic and the surface energy contributions, which cannot be decoupled, and depend on configurational pairs consisting of a set and a function that model the region occupied by the crystal and the bulk displacement field. In this talk I will discuss a compactness property of a sequence of such configurations, having a bounded SDRI energy.

Mittwoch, 11. Dezember 2024

13:30 Uhr bis 14:15 Uhr,

Ort: SR 13, 2. OG.

**Fakultät für Mathematik,
Oskar-Morgenstern-Platz 1**

**Otmar Scherzer
Radu Bot**