



Einladung zum Oberseminar Mathematik in den Naturwissenschaften

Julius-Maximilians-Universität Würzburg
Lehrstuhl für Mathematik in den Naturwissenschaften

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Variational approaches to dynamical problems in continuum mechanics

Continuum mechanics has always been a rich source of problems and inspirations for many areas of analysis. The problems studied therein are often highly non-trivial, yet by their very nature inherently geometrical and with natural estimates. The aim of this talk is to present some recent results on fluid structure interaction and related problems, employing a quite general method to apply iterated minimization to the existence theory for dynamical problems. By working in concert with the geometry of the problem, both in the physical space, as well as the abstract state-space, this variational approach allows us to construct approximations to the solutions, which throughout the whole process not only satisfy all relevant estimates, but also allow us to work with highly non-trivial boundary conditions.

This is based on joint works with B. Benešová, D. Breit, A. Češík, G. Gravina and S. Schwarzacher.

Ort: Mathematik Ost, 40.03.003/Zoom

Zeit: Donnerstag, 22.12.2022 um **13:15 Uhr**

You are cordially invited to this lecture. Request the Zoom link from
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gez. Anja Schlömerkemper