



# Einladung zum Oberseminar Mathematik in den Naturwissenschaften

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

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## **Existence of weak solutions for a compressible, multi-component fluid structure interaction problem**

We address the question of global in time existence of weak solutions of a system of PDEs governing the interaction between two compressible mutually noninteracting fluids and a shell of Koiter type encompassing a time dependent 3D domain filled by the fluids.

The dynamics of the fluids is modelled by compressible Navier-Stokes equations with a physically realistic pressure depending on densities of both the fluids. The shell constitutes the boundary of the fluid domain and it possesses a non-linear, non-convex Koiter energy.

Ort: Mathematik Ost, 40.03.003/Zoom

Zeit: Donnerstag, 27.04.2023 um 10:00 Uhr

**You are cordially invited to this lecture. Request the Zoom link from  
[anja.schloerkemper@mathematik.uni-wuerzburg.de](mailto:anja.schloerkemper@mathematik.uni-wuerzburg.de)**

gez. Anja Schlömerkemper