



Einladung zum Oberseminar Mathematik in den Naturwissenschaften

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

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The wave equation on a time-dependent interval and the problem of dynamic debonding

Motivated by a debonding model for a thin film peeled from a substrate, we analyse the one-dimensional wave equation, in a time-dependent domain which is possibly degenerate at the initial time. First we prove existence for the wave equation when the evolution of the domain is given; then, we consider the problem where the evolution of the domain is unknown and is governed by an energy criterion coupled with the wave equation. Our existence result for such coupled problem is a contribution to the study of crack initiation and evolution in dynamic fracture.

Ort: Zoom video conference

Zeit: Donnerstag, 12.11.2020 um 14:15 Uhr

**You are cordially invited to this lecture. Request the Zoom link from
anja.schloerkemper@mathematik.uni-wuerzburg.de**

gez. Anja Schlömerkemper