

Differentiability of Fluid-Structure Interaction Problems with respect to the Data

T. Wick¹ and W. Wollner²

Abstract: In this talk, we will consider a stationary model for fluid structure interaction of an incompressible fluid with an elastic structure using the ALE-framework. In particular, we will discuss differentiability of the solution operator of the problem.

¹ Austrian Academy of Sciences,
Johann Radon Institute for Computational and Applied Mathematics
Altenberger Strasse 69, A-4040 Linz (Austria)
twick@ices.utexas.edu

² University of Hamburg, Department of Mathematics
Bundesstr. 55, 20146 Hamburg, Germany
winnifried.wollner@uni-hamburg.de