



The true stress true strain monotonicity condition in incompressible nonlinear elasticity

Prof. Dr. Patrizio Neff

Universität Duisburg-Essen, Fakultät für Mathematik
Mathematik-Carrée, Thea-Leymann-Straße 9, 45127 Essen

Date	28 August 2026
Time	10.30–11.30
Room	2R, DICAM, Mesiano

I present recent results relating to constitutive questions in nonlinear elasticity. It is shown that polyconvexity implies true stress true strain monotonicity in planar incompressible elasticity and in three-dimensions, Balls sufficient condition for polyconvexity also implies the above monotonicity.

The seminar is organized by the Solid and Structural Mechanics Group [D. Bigoni, F. Dal Corso, L. Deseri, D. Misseroni, M.F. Pantano, A. Piccolroaz, N.Pugno, R. Springhetti]