

Contribution Title: BOUNDARY DIFFERENTIABILITY OF SOLUTIONS
OF ELASTIC PLASTIC PROBLEMS WITH LINEAR
HARDENING

Authors: J. Frehse, D. Löbach
Presenting author: Löbach D.
Affiliation: University Bonn Germany
E-mail: loebach@iam.uni-bonn.de
Invited speaker:
YRS seminar: NO

We consider the quasistatic variational inequality of elastic plastic deformation with linear kinematic and isotropic hardening. The basic domain $\Omega \subset \mathbb{R}^n$ has $C^{1,1}$ -boundary. Near the Dirichlet boundary we obtain the full tangential derivatives of the stresses and hardening parameters σ, ξ in L^2 . For the normal derivatives we obtain Nicholskii Space differentiability of order $\frac{1}{2}$. Related results for the displacements u are presented.