Einladung zum Vortrag

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Thema: Explicit expression for the plastic normality-flow rule associated to the Tresca yield criterion

Datum: Mittwoch, 25.05.2005, 12:30 h

Ort: Seminarraum des IAM (R 112)

Zusammenfassung

The Tresca yield criterion is classical and important to the theory of plasticity. It is usually formulated in terms of the difference between the maximum and minimum principal stresses. Difficulties have been encountered in attempts to explicitly express the plastic normality-flow rule associated to it, because the difference between the maximum and minimum principal stresses is generally not differentiable but subdifferentiable with respect to the stress tensor. In this talk, the corresponding subdifferential will be determined and specified for all-possible cases of multiplicity of the principal stresses. Therefore the explicit mathematical expression will be obtained for the plastic normality-flow rule relative to the Tresca yield criterion.

Keywords. Plasticity; Tresca yield criterion; plastic strain rate; normality-flow rule; convex analysis; subdifferential.