STABILITY OF NONLINEAR VISCOUS SAMPLE UNDER UNIAXIAL STRAIN

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Superplasticity is the ability of the material to show extremely large deformations, up to thousands percent in certain conditions. From experiments it is well known that in some samples running necks may appear during deformation.

The aim of the presented research was to study the stability of the uniaxial strain of a nonlinear-viscous sample. All well-known approaches to such analysis are geometrically linear and perturbations of the configuration are not considered. Maybe it is the reason why this kind of results do not coincide with the experiments and consequently usually are not mentioned in the papers devoted to superplasticity.

In this presentation we report on geometrically nonlinear analysis. Perturbations are taken in the normal form, monotonous. Following the formalism of analysis we obtain dependence of λ on the wave number.

*Přednáška **v angličtině** se koná v pondělí 13.11.2006 v malé zasedací síni děkana (místnost B 161) v budově Stavební fakulty ČVUT v Praze, Thákurova 7, Dejvice. **Všichni zájemci jsou srdečně zváni.***

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