English summary

Strain measures and conjugated stresses in continuum mechanics

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Summary. The paper deals with the definition of strain measures in the continuum mechanics and their conjugated stress measures. Strain measures are Green-Lagrange, Almansi-Euler, Biot and Hencky's logarithmic strain. Corresponding stresses are determined by use of work gonjugacy. For this purpose the rates of strains are needed. The results are illustrated by an example of simple shear.

Key words: non-linear deformations, strain measures, stress measures, simple shear.