COST E55 Workshop, Espoo, March 13-14, 2008

Abstract of presentation/paper

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Title:
A 3D moisture-stress FEM analysis of timber structures

A 3D coupled moisture-stress gradient analysis for wood is performed under different loads and moisture changes by using the Abaqus Standard program. The analysis is based on a constitutive viscoelastic-mechanosorptive creep model. The proposed approach is validated by analyzing some timber structures and comparing the computational results with existing experimental data.

The presentation/paper belongs to the category:

Vulnerability of Timber Components:

- Moisture Induced Stresses