

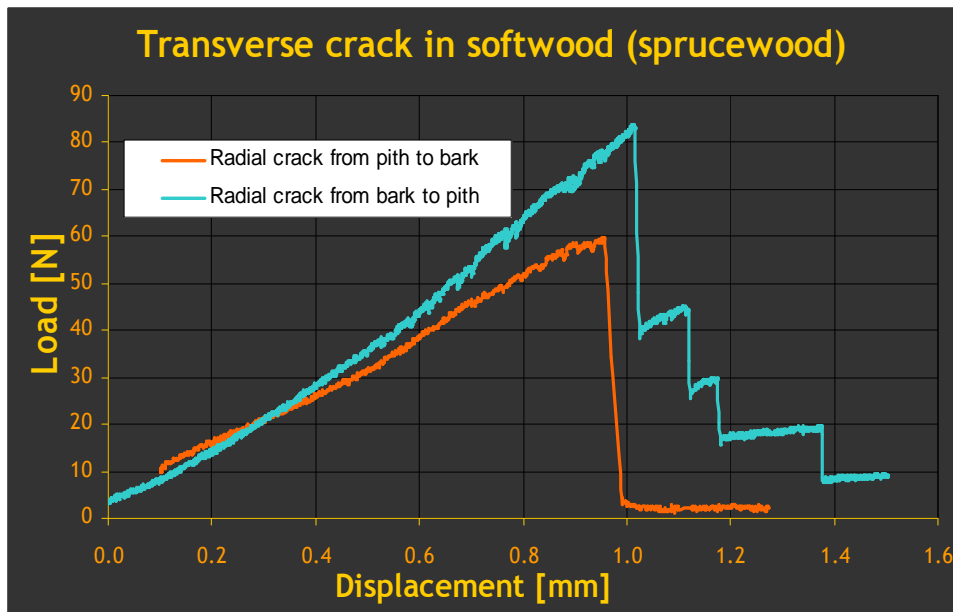
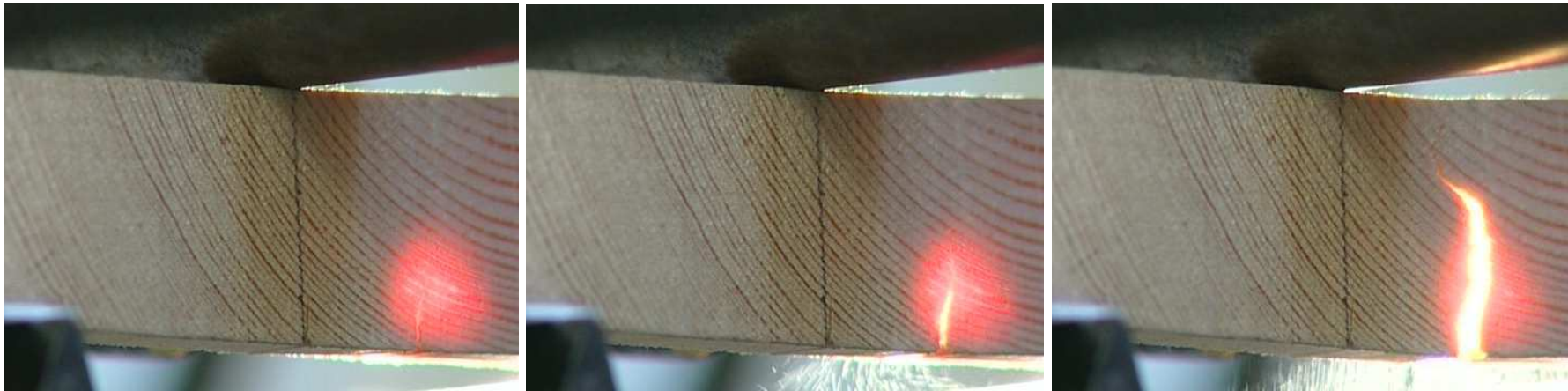


Investigation of transverse multi-scale mechanical fracture of softwood

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Experimental investigation of wood transverse fracture



Observation of radial crack propagation :

-from the pith to the bark
Brittle behavior

-from the bark to the pith
Propagation in several steps
and stops at the softwood-
latewood junction.

Numerical simulation

Softwood is represented in the transverse plane as **cylindrically orthotropic material**
+ **linear stiffness variation along annual rings**

