

Institut für Mechanik der Werkstoffe und Strukturen

FoB Struktursimulation und Ingenieurholzbau

RESEARCH FOCUSES

Wood Science & Biocomposites

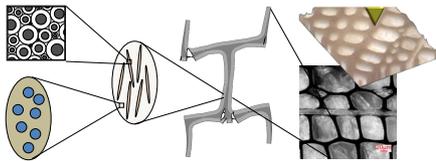
Computational Mechanics

Fired Clay & Masonry Structures

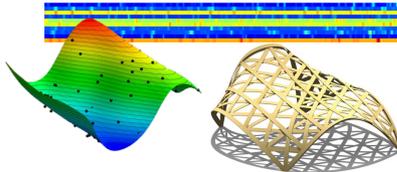
OVERVIEW OF RESEARCH METHODS AND CONCEPTS

Virtual WoodLabs

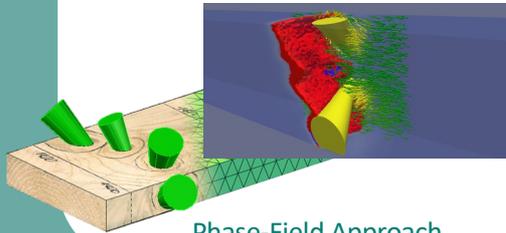
“Making wood predictable through computational methods”



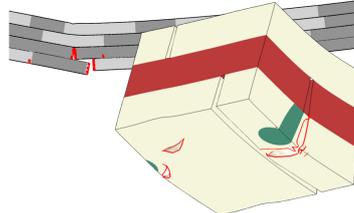
Continuum Micromechanics



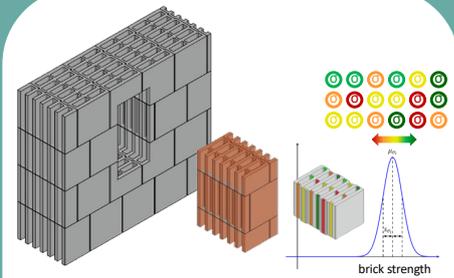
Stochastics & Structures



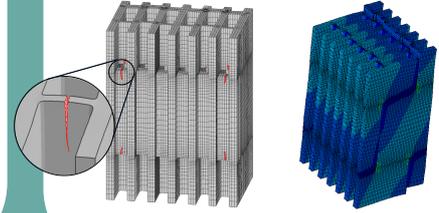
Phase-Field Approach



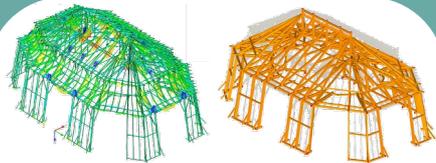
Discrete Crack Modelling



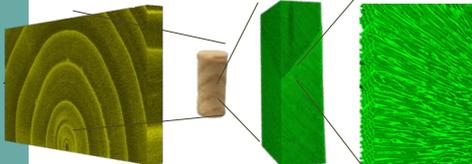
Unit Cell Approach & Stochastics



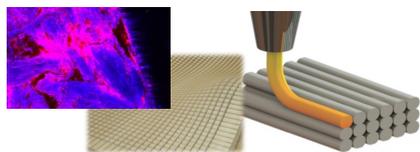
FEM-based Simulations



Timber Engineering



Micro-computed Tomography

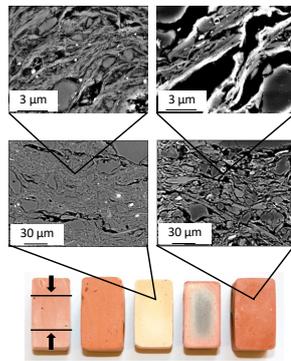


Material Development

Virtual Ceram Lab

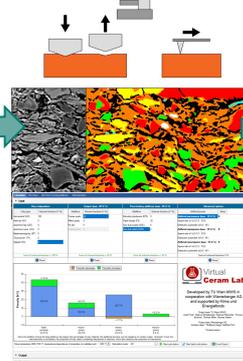
“Mechanics-based optimization of fired clay material and brick geometries”

Brick morphometry



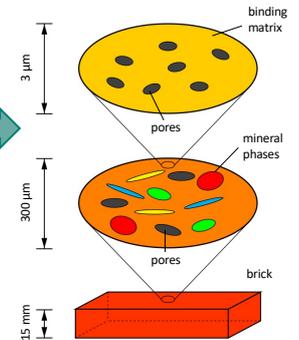
Experiments

Phase Properties



Validated Webtool

Multiscale Model



Prediction