

15 – 16th December, 2025

Workshop **Wood and Fibers @ Grenoble**

CERMAV, 601 rue de la chimie, Gières
Amphi Kilian, 1381 Rue de la Piscine, Gières

– Transport and Morphology –

Day 1 (15 Dec)

9:00-9:50 Campus tour (CERMAV / 3SR / FCBA / LiPhy?)

I : Water and heat transport @CERMAV conference room

10:00 – 10:30 Philippe MARMOTTAN, *Laboratoire Interdisciplinaire de Physique (LiPhy)*
Solving the mystery of embolism repair in the xylem of plants after a period of drought using biomimetic leaves"

10:30 – 10:50 Yoshiharu NISHIYAMA, *Centre de Recherche sur les Macromolécules Végétales*
Molecular origin of wood swelling

11:00 – 11:40 Philippe COUSSOT, *Laboratoire NAVIER (Champs-sur-Marne)*
Water diffusion in wood and plant cell walls from MRI studies

11:40 – 12:00 Arthur Bontemps, *INSA Lyon*
Development and applications of a 1D model of moisture diffusion in wood

12:00 – 13:30 Lunch

13:45 – 14:00 reunion des membre des jury @3SR

14:00 – 14:45 Présentation de thèse de Romain BORDAGE @ l'amphithéâtre Kilian
L'étude du transport spontané et mécaniquement assisté d'eau dans le bois de hêtre par microphotographie aux rayons X et corrélation numérique de volumes"-

14:45 – discussion / pot

Day 2 (16 Dec)

II : Morpholgy and light transport and shaping @CERMAV conference room

9:00 – 9:30 Vincent PLACET, *FEMTO-ST Institute (Besançon)*
Fidelity and Accuracy of the 3D Reconstructed Morphology of Elementary Flax Fiber Using Optical Projection and X-ray Micro-tomography: a Comparative Study

9:30 – 10:00 Bin CHEN, *KTH (Sweden)*
Optical scattering study of transparent wood: from 3D microstructure generation to optical scattering simulation

10:00 – 10:30 coffee break

10:30 - 10:50 Xiaoyi Wei, *Tokyo University of Agriculture and Technology (Japan)*
Delignification of softwood and hardwood under room-Temperature sodium chlorite treatment after alcoholysis

10:50 – 11:20 Jérémie VIGUIE, *LGP2*
Shaping paper through patterned polysaccharide hydrogel printing and drying-induced actuation