





## **Second Announcement**

### Joint ILL ESRF Workshop

# *"Chemical Engineering and Mechanics in Wood: X-ray and neutron scattering, microscopy and modelling"*

23-24 March 2017 Institut Laue Langevin, Grenoble, France

Wood swelling and related mechanical property variations are crucial problems for the durability and usage in construction and furniture and for the preservation of cultural heritage. There are several established methods for wood impregnation and chemical modification but none of them can be predictively modeled. A robust and comprehensive microstructural characterization preliminary to the modelling is based on combined real and indirect space studies. This joint ILL and ESRF workshop will present experimental possibilities to follow adsorption of water, salts or reactives in cellulose-based materials (techniques, sample-environments: humidity, temperature, pressure, mechanical stress) in link with open questions from theoreticians (success and failure of predictive models) to current limitations in commercial applications (process, properties enhancement, preservation).

#### Keywords / Thema:

- Microstructure and thermodynamics of wood and wood products

- Processes for increasing durability via controlled swelling
- Mechano-chemical processes and properties

# INVITED SPEAKERS

P. Baglioni (Italy)L. Bertinetti (Germany)F. di Renzo (France)W. Kunz (Germany)B. Medronho (Portugal)

## Organizing Committee

B. Demé (ILL) J.-C. Gabriel (CEA) I. Grillo (ILL) T. Grünewald (ESRF) S. Prévost (ESRF) T. Zemb (ICSM)



Registration open : 2 January 2017 Abstract submission deadline : 15 February 2017 Notification of accepted communications: 24 February 2017 Online registration deadline : 15 March 2017



Additional information about costs and accommodation can be found at the local website: https://indico.ill.fr/indico/event/63/

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