



# CompWood 2019

JUNE 17–19, 2019 | VÄXJÖ | SWEDEN

*International Conference on*  
Computational Methods in Wood Mechanics –  
from Material Properties to Timber Structures



## Scope and Invitation

Wood is an excellent building material, due to its outstanding weight-performance characteristics, its sustainable availability and its appearance generally perceived as very pleasant. For all these reasons, wood as main building component is very well suited for a lot of engineering structures. Nevertheless, it is not used as extensively and efficiently as these properties would suggest. The inherent heterogeneous material structure and the great diversity of species make wood a challenging material as regards computational mechanical and engineering design models. Thus, the potential of wood, wood-based products, and timber building components is not fully exploited yet. Limits in existing design methods hamper a reliable and economically competitive design of timber structures. The use of modern computational methods is expected to complement experimental investigations and to enhance the predictive capability of design methods for wood and wood-based products as well as for timber engineering.

Challenges are for example the appropriate description of complex brittle and ductile failure modes (triggered by the anisotropic material behavior), the resulting load transfer mechanisms (specifically in the case of reinforcements), and a realistic determination of compliances of connections between timber components. For all this, the time-, moisture- and temperature-dependency of wood may be taken into account. To address these challenges, detailed knowledge of the mechanical behavior of wood on different length scales, from the 'cell wall material' over 'wood-based products' up to 'timber structures', must be gained, brought together in modern mechanical modelling strategies, and finally transferred to engineering practice.

The resulting goal of this ECCOMAS Thematic Conference is to establish a platform for knowledge exchange between scientists in the field of computational wood mechanics. Related experimental and theoretical research as well as applied research up to design solutions for practical examples are also welcome, to extend the knowledge base of this unique material.

Thus, the scientific and technical areas covered by this conference are numerical and analytical models, experimental investigations, and design concepts for wood at different length scales, wood-based products, building components, and timber structures.

## Conference Topics

The topics covered by CompWood 2019 are

- theoretical (design concepts, material modelling),
- numerical (nonlinear and stochastic simulations), and
- experimental investigations related to computational wood mechanics at different length scales, like the
  - wood microscale (cell behavior, fibers, pulp and paper)
  - wood macroscale (solid wood, wood products, laminated members, joints)
  - structural scale (building constructions, construction details, historical applications, ectetera).

## Call for Abstracts

We invite both oral presentations and poster presentations. Prospective authors are kindly invited to submit a one-page abstract related to the conference topics through the conference online system by January 31, 2019. The template is available for download at the conference webpage.

## Keynote Speakers

**Philipp DIETSCH,**

*Chair of Timber Structures and Building Construction,  
Technical University of Munich, Germany*

**Kjell Arne MALO,**

*Department of Structural Engineering,  
Norwegian University of Science and Technology, Norway*

**Patrick PERRÉ,**

*Laboratory of Chemical Engineering (LGPM) CentraleSupélec,  
Université Paris-Saclay, France*

**Erik SERRANO,**

*Division of Structural Mechanics, Lund University, Sweden*

**Falk WITTEL,**

*Chair of Computational Physics for Engineering Materials,  
ETH Zürich, Switzerland*

## Organizing Institutions

Linnaeus University, Sweden,  
*Department of Building Technology*

TU Wien, Austria,  
*Institute for Mechanics of Materials and Structures*

## Chairmen

Thomas K. BADER, *Linnaeus University, Sweden*

Josef FÜSSL, *TU Wien, Austria*

Anders OLSSON, *Linnaeus University, Sweden*

## Scientific Advisory Committee

Chairman Josef EBERHARDSTEINER, *Austria*

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Lech MUSZYŃSKI, *USA*

Peter NIEMZ, *Switzerland*

Sigurdur ORMARSSON, *Sweden*

Guillaume POT, *France*

Gerhard SCHICKHOFER, *Austria*

Erick I. SAAVEDRA FLORES, *Chile*

Staffan SVENSSON, *Sweden*

Jose XAVIER, *Portugal*

## Conference Venue

The conference will take place at Linnaeus University in Växjö. Växjö is the very heart of southern Sweden – in the middle of Småland. There is a lot to see, experience, and to do here – local handicraft, unique shops and world-class restaurants. If you just want to pick two things to see and do during your visit, we recommend The Swedish Glass Museum and the House of Emigrants. For more suggestions you can also visit Växjö's official visitors guide webpage [Vaxjoco.se/en](http://Vaxjoco.se/en). Midsummer, the most typical of Swedish traditions, will be celebrated the weekend after the conference.

## Accommodations

Block reservations at preferential hotel rates are arranged by the organizers. Detailed information is available on the conference website.

## Social Program

We recommend arrival on the Sunday before the conference. In the evening on Sunday, June 16, 2019, a welcome reception will be held at Lagerlunden Bistro & Bar at Elite Stadshotellet, where it will be possible to register. The conference Banquet at PM&Vänner restaurant will take place on Tuesday, June 18, 2019.



## Important Dates

Abstract submission deadline	January 31, 2019
Notification of acceptance	March 18, 2019
Early registration deadline	April 15, 2019
Presenter registration deadline	April 30, 2019
Registration deadline	June 1, 2019

## Registration Fees

Registration fee includes the Conference Proceedings, attendance to all scientific sessions, coffee breaks, lunch, the welcome reception and the banquet. The early registration fee applies to participants who complete the registration and pay the fee no later than April 15, 2019.

	Early registration	Late registration
ECCOMAS Members	3900 SEK	4100 SEK
Delegates	4300 SEK	4500 SEK
Students	2300 SEK	2500 SEK

The above listed registration fees do not include VAT and apply to all participants from organizations with a valid VAT identification number. Otherwise, 25% VAT will be added to the registration fees.

