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Workshop Venue

The workshop will be held in the Geosciences building of the UTAD, which is located in Vila Real, a city in the north of Portugal, about 100 km from the Oporto airport.

Accommodation

A sufficient number of hotel rooms will be reserved in the vicinity of the workshop venue. Details will be available soon in the Registration Form and on the Action's website (<http://COST-FP0802.tuwien.ac.at>). Participants are asked to make their hotel reservation directly with the hotel by referring to "COST".

Registration

Deadline for registration is March 11, 2011. Participants will be asked for a fee of € 70 covering costs for lunches, conference dinner, coffee breaks and abstract booklet. Please use the Registration Form which will be also available on the Action's website.

Important Dates

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|------------------------------|-----------------------|
| Abstract submission deadline | February 11, 2011 |
| Notification of acceptance | before March 11, 2011 |
| Registration deadline | March 11, 2011 |
| Workshop dates | April 27-28, 2011 |

Supporting Organisations

COST - European Cooperation in the field of Scientific and Technical Research

CITAB – Centre for Research and Technology of Agro-Environmental and Biological Sciences



UTAD – University of Trás-os-Montes e Alto Douro



Action FP0802

Experimental and Computational Micro-Characterization Techniques in Wood Mechanics

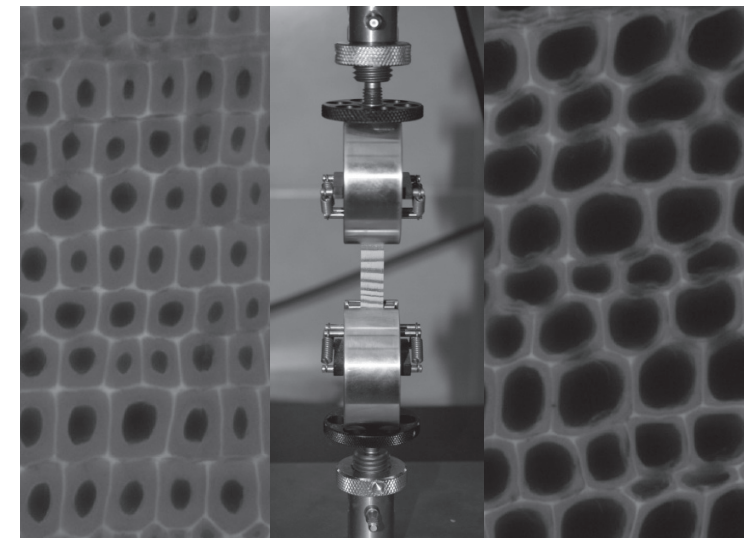
<http://COST-FP0802.tuwien.ac.at>

Thematic workshop

Mixed numerical and experimental methods applied to the mechanical characterization of bio-based materials

April 27-28, 2011

Vila Real, Portugal



COST Action FP0802

The main objective of the COST Action FP0802 “*Experimental and Computational Characterization Techniques in Wood Mechanics*” is to increase the understanding of the wood microstructure and micromechanics by exploring and evaluating emerging techniques in the fields of physics, chemistry, materials and computer science in order to provide a strong basis for the development of innovative wood-based products in the future and for enhancing the use of the natural resource wood.

About COST

COST – European Cooperation in the field of Scientific and Technical Research – is one of the longest-running European instruments supporting cooperation among scientists and researchers across Europe. COST is also the first and widest European intergovernmental network for coordination of nationally funded research activities.

More information on COST can be found at the COST website (<http://www.cost.esf.org>).

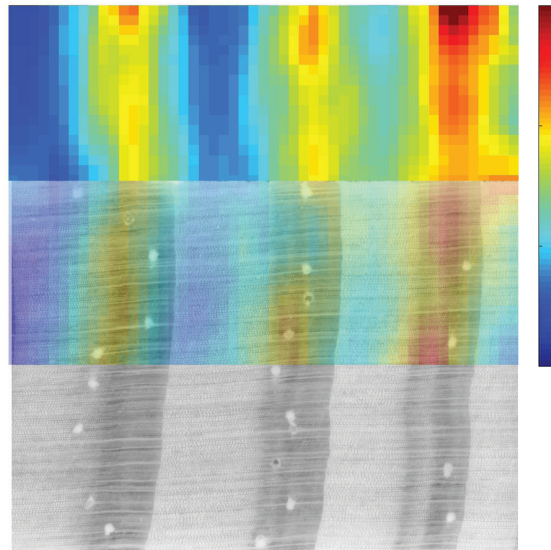
Workshop Objectives

The objective of the workshop is to present and discuss the benefits and problems of combined numerical/experimental methods for the study of wood and possibly also more general to bio-based materials (e.g. micro-spectroscopy, mechanical tests in ESEM, full-field measurements of deformation, Finite Element simulation and optimization methods). The workshop will provide a forum to communicate current ideas and strategies in this field.

Workshop Topics

Topics of interest include, but are not limited to:

- tomography
- spectroscopic techniques
- mechanical testing and properties at different length scales
- full-field measurement techniques
- multi-physics modeling
- multiscale modeling and homogenization
- optimization methods
- finite element simulation and virtual testing
- parameter identification and inverse modeling
- experimental and numerical hybrid methods
- structural investigations and molecular mechanisms
- transport behaviour and properties
- hygro-thermo-mechanical couplings at different length scales
- biomimetic applications



Call for Papers

Authors are kindly invited to submit an abstract related to the topics of the workshop by February 11, 2011. The Abstract Submission Form will be available on the Action’s website.

Scientific Programme

The scientific programme will comprise

- oral presentations (20 min. incl. discussion) and
- poster presentations (3 min.).

There are no parallel sessions.

Programme at a glance

Wednesday, April 27:

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| 09:00-18:00 | Workshop |
| 20:00 | Dinner |

Thursday, April 28:

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|-------------|----------|
| 09:00-18:00 | Workshop |
|-------------|----------|

