

PTF BPI 2010

1st International Conference on Processing Technologies for the Forest and Biobased Products Industries

October 7-8, 2010
Campus Kuchl, Austria

The 1st International Conference on Processing Technologies for the Forest and Bio-based Products Industries, taking place on October 7 - 8, 2010 at Salzburg/Kuchl, AUSTRIA is dedicated to the exchange of information and ideas about research on process technologies, quality control and process improvement. The Conference provides a forum for discussions among researchers, producers, and consumers of forest and bio-based products and acts as a catalyst for new research on process technologies, quality control and process improvement and on new concepts for use by technical managers, operations managers, and business managers.

The conference will be of direct benefit to anyone involved in processing technologies for the forest and bio-based products industries. As the first international conference in this field it offers a forum and sessions for technical managers, plant managers, production managers, product development engineers, process engineers, scientists, academics and students in the forest and bio-based products industries.

October 7th

8:00 – 9:00 Registration

9:00 – 10:30 Plenary Session I: Innovation in Industry
Chair: Dr. Alexander Petutschnigg (E17)

9:00

Doris Walter, Alexander Petutschnigg
Welcoming & Organizational Issues

9:20

Hans Scharfetter
Federal Government of Salzburg

9:40

Laszlo Döry
President of the European Panel Federation

10:00

Biorefineries for Eco-efficient Processing of Biomass – Classification and Assessment of Biorefinery Systems in IEA Bio-energy Task 42 “Biorefineries”
Johanna Pucker

SESSION 1A (E17):

Wood processing technologies and strategies
Chair: Dr. Alexander Petutschnigg

11:00

Saving Resources by Advanced Vision-Based Automatic Patching of Wood Based Panels
Robert Massen

11:30

Superior Processing of Small Diameter Hardwood
Hermann Huber

12:00

Increase of Material Yield in Plywood Production with New Veneer Processing Technologies
Burkhard Plinke

SESSION 1 B (E13):

Process modeling technologies
Chair: Dr. Timothy Young

11:00

Real-time Process Modeling of Wood Composites Panels
Nicolas Andre

11:30

On-Line Determination of Material Properties in Laminates Manufacture by NIR Spectroscopy
Andreas Kandelbauer

12:00

Speed Otimization of CT-Based Microstructure Determination using Matrix Decomposition
Simon Bernd Kranzer

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12:30 - 13:30 Lunch (E 15, E 16)

SESSION 2A (E17):

Wood modification processes

Chair: Dr. Holger Militz

13:30

The Influence of Heat Treatment on the Set Recovery of Compressive Deformation

Andreja Kutnar

14:00

LbL Treatment of Wood Surfaces to Improve Bondline Performance

Csilla Mária Csiha

14:30

Impact of Heat Treatment on the Wettability of Wood

Milan Sernek

SESSION 2B (E13):

New adhesive technologies

Chair: Dr. Antonio Pizzi

13:30

Use of Valuable By-Products from Leather Production for New Applications

Stefanie Wieland

14:00

AsWood™ Adhesive Systems for Furniture and Flooring Applications

Astrid Pedersen

14:30

Comparison of Formaldehyde Emission Potentials for Binders and Additives

Florian Dorner

SESSION 3A (E17):

Glued laminated lumber and components

Chair: Dr. Alfred Teischinger

15:30

Branch Wood, from Secondary Wood Resource to Value Added Eco-Products

Lidia Gurau

16:00

Wood I-Joists Made of Corrugated Veneer Web Panels

Levente Denes

16:30

Gluing of European Hardwoods for Load Bearing Timber Structures

Michael Schmidt

SESSION 3B (E13):

Characterization of wood-based panels

Chair: Dr. Manfred Dunky

15:30

Advances in the NMR Based Characterization of Wood and Wood Products

Gerhard Zuckerstätter

16:00

3D Microstructure Characterization of Wood Based Panels

Gernot Standfest

16:30

Tangential Penetration of Urea-Formaldehyde Adhesive Resins into Beech (*Fagus Moesiaca*) and Fir (*Abies Alba*, Mill.)

Ivana Gavrilović-Grmuša

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17:00 – 18:30 Organizational Issues

Poster Session (E15, E 16)

Assessing the Particle Structure of Wood Based Panels through Mode 1 Fracture Testing

Jörn Bernhard Rathke, Jürgen Follrich, Michael Harm, Martin Weigl, Ulrich Müller

Quality Control of Impregnated Films with a Multiple Regression Model

Philipp Oberkirchner, Alexander Petutschnigg

Post Industrial Wooden Raw Material as Natural Fiber base for Wood Plastic Composites (WPC) based on PVC and PP Matrix Material

Peter Hausberger, Sven Wolf, Mihaly Szakaci

Enhancing Southern Pine Plantation Timber Value Yields via Integration of Lumber Production Systems

Honorio F. Carino, Catalino A. Blanche

Tannin Based Foams and ist Derived Carbon Foams

Gianluca Tondi, Antonio Pizzi, Alain Celzard

Determination of some Influencing Parameters in the Rotational Wood Dowel Friction Welding Process for Handcrafted Solid Wood Furniture

Anton Trainotti, Stefanie Wieland, Gianluca Tondi

Thermal Modification of Particles and Particle Board for Dimensional Stable Product

Sergej Medved

Estimation of Firewood Usage in Kosovo – Perspectives for Future Development

Agron Bajraktari, Bujar Pira, Alexander Petutschnigg, Michael Ebner

A Simple Model to Predict Bond Strength Development during the Hot-Pressing of Particle Board

Jorge Manuel Martins, João Pereira, Luisa Hora de Carvalho, Carlos Costa

Characterization of Reinforced Adhesives for Particle Boards

Claudia Pretschuh, Uwe Müller, Clemens Schwarzinger, Ulf Panzer

Use of Lupin Proteins as Bio-Based Product

Emilio Vergara, Mario Núñez, Aldo Ballerini, Marcia Vidal, Esteban Ramirez, Nazmy Reyes, Mohamed Dahrouch

Automated Grading, Upgrading and Cuttings Prediction of Surfaced Dry Hardwood Lumber

Philip Arthur Araman, S. M. Lee, A. L. Abbott, M. F. Winn

Effect of Recycled Wood and Alternative Species on Particle Board Machining

Luisa Maria Carvalho, Nuno Garrido, Jorge Martins, Joaquim Mendes, Carlos Costa, João Pereira

Improving with Reinforcement the Deflection of Shelves Made of Particle Board and MDF

Vassil Jivkov, Yordan Yordanov, Assia Marinova

U.S. Wood Pallet Material Use Trends

Philip Arthur Araman, R. J. Bush, E. B. Hager

20:00 Cocktail, Dinner Banquet in Salzburg

Visit to the "Stiegl Brauwelt" in Salzburg City (www.brauwelt.at)

Aperitif + guided evening tour through the Stiegl Brewery

Dinner with a range of typical Austrian specialities

(Bus transfer from Kuchl to Salzburg is organized)

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October 8th

9:00 – 10:30 Plenary Session II

Chair: Dr. Marius Barbu (E17)

9:00

Wood for Good - Serving the Needs of Industry

Reinhard Lackner

9:30

IUFRO - Highlights of Organisation

Marius C. Barbu

Innovative Production of Wood Based Lightweight Panels

Marius C. Barbu

10:00

Thermo-Hydro-Mechanical Wood Behaviour and Processing, COST Action FP0904

Parviz Navi

SESSION 4A (E17):

Integrated bioenergy

Chair: DI(FH) Johanna Pucker

11:00

Characterization and Potential Recycling of Home Building Wood Waste

Philip Arthur Araman

11:30

Extraction of Nutrients from Biomass Ashes with Varying Extraction Times

Michaela Kröppl

12:00

Bio-Ethanol Potential from Lignocelluloses

Alexander G. Jäger

SESSION 4B (E13):

WPC – Processes

Chair: Dr. Alfred Teischinger

11:00

Markets, Applications and Processes for Wood Polymer Composites (WPC) in Europe

Andreas Haider

11:30

Effect of Finishing and Sizing Agents on the Mechanical Performance of Wheat and Flax Pulp Fibre-PP-Composites

Eva Sykacek

12:00

Post Industrial Wooden Raw Material as Natural Fiber Base for Wood Plastic Composites (WPC) Based on PVC and PP Matrix Material

Sven Wolf

12:45 – 13:00 Organizational Issues, Closing (E17)

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Conference fee:

Early registrant (until May 31, 2010)

Regular € 220,--

Student € 190,--

Normal registrant (June 01, 2010 - Oct. 08, 2010)

Regular € 250,--

Student € 220,--

Venue

Salzburg University of Applied Sciences
Campus Kuchl
Markt 136 a
5431 Kuchl/Salzburg
AUSTRIA

Accommodation

For your accommodation we have made a selection of some hotels which are situated near the main station "Salzburg-Hauptbahnhof" as well as two guesthouses in Kuchl. On our conference website <http://conference.fh-salzburg.ac.at/index.php?id=17> you may find further helpful information. Please notice the rooms are not pre-booked. So make your booking by referring to our conference to get the special arrangements.

Program committee

Dr. Alexander Petutschnigg (Salzburg University of Applied Sciences)

Dr. Timothy M. Young (University of Tennessee)

Dr. Maurizio Musso (University of Salzburg)

Dr. Alfred Teischinger (BOKU University, Vienna)

Organizing chair

Dr. Stefanie Wieland

Salzburg University of Applied Sciences

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