



59th SWST International Convention

FOREST RESOURCE AND PRODUCTS: MOVING TOWARD A SUSTAINABLE FUTURE

In Cooperation with APRE (Associação Paranaense de Empresas de Base Florestal),
II Expo Wood & Construction, and EBRAMEM (Encontro Brasileiro em Madeiras e em
Estruturas de Madeira) XV Symposium Wood & Construction

MARCH 6-10, 2016 ▶ CURITIBA, BRASIL



Sunday, March 6

- 17:00-18:00 Registration - Hotel Bourbon
- 18:00-20:00 Evening Welcome Reception, Opening Ceremony and Awards Presentation
Bourbon Curitiba Convention Hotel, All Seasons Room
(All technical presentations, March 7-10, held at Salão de Atos, Parque Barigüi)

Monday, March 7

- 7:00-8:00 Registration - Salão de Atos, Parque Barigüi
- 8:00-8:15 Welcome to the Conference by Conference Co-Chairs - Sudipta Dasmohapatra,
North Carolina State University, USA; and Carlos Mendes, APRE, Brasil
- 8:15-9:00 Keynote - Juscelino Portela, Portela Woods, Brasil
Wood Business in the Amazon
-
- 9:00-12:00 **Lignocellulosic Materials Science Session**
Moderators David DeVallance, West Virginia, USA; and Andreja Kutnar, University of Primorska, Slovenia
-
- 9:00-9:20 José Couceiro, Luleå University of Technology, Sweden
In situ CT-scanning of Checking and Collapse Behaviour of Eucalyptus nitens during Drying
- 9:20-9:40 David DeVallance, West Virginia University, USA
Influence of Processing Parameters on the Piezoresistivity of Bio-based Carbon Sensor Material
- 9:40-10:00 Benedikt Neyses, Luleå University of Technology, Sweden
Development of a Continuous Wood Surface Densification Process - The Roller Pressing Technique
- 10:00-10:20 Gloria Oporto, West Virginia University, USA
Nanofibrillated Cellulose from Appalachian Hardwoods: Red Oak (*Quercus rubra*) and Yellow Poplar (*Liriodendron tulipifera*) as Template for Copper Nanoparticles
- 10:20-11:00 COFFEE BREAK
- 11:00-11:20 Ilona Peszlen, North Carolina State University, USA
Two-stage Fungal Pretreatment of Genetically Modified *Populus trichocarpa* with White-rot Fungus, *Ceriporiopsis Subvermispora*, and Brown-rot Fungus, *Postia Placenta*

59th SWST International Convention, March 6–10, 2016
FOREST RESOURCE AND PRODUCTS: MOVING TOWARD A SUSTAINABLE FUTURE



Monday, March 7 *continued*

- 11:20–11:40 Morwenna Spear, Bangor University, United Kingdom
Mild Thermal Modification to Add Value to UK Grown Larch: Monitoring Quality, Physical Properties, and Benefits
- 11:40–12:00 H. Michael Barnes, Mississippi State University, USA
Properties of Southern Pine Modified with Melamine Formaldehyde Resin
- 12:00–13:00 LUNCH
-
- 13:00–14:45 **Bio-Composites Session**
Moderators Jerrold Winandy, University of Minnesota, USA; and Rupert Wimmer, BOKU Vienna, Austria
-
- 13:00–13:20 Paige McKinley, Oregon State University, USA
Multi-scale Investigation of Adhesive Bond Durability
- 13:20–13:40 Jerrold Winandy, University of Minnesota, USA
Development of a New ASTM Standard Testing Method for Laboratory Manufactured Fire-Retardant-Treated Strandboard
- 13:40–14:00 Divino Eterno Teixeira, Brazilian Forest Service, Brasil
Recycling Wood Waste from Construction Sites: Part 1: Manufacture and Characterization of Blockboard
- 14:00–14:20 Rupert Wimmer, BOKU Vienna, Austria
Connecting Wood and 3D printing
- 14:20–14:30 Discussion
- 14:30–14:45 COFFEE BREAK
-
- 14:45–16:45 **Marketing, Policy & Strategy Session**
Moderators Henry Quesada-Pineda, Virginia Tech, USA; and Marcelo Wiecheteck, STCP Engenharia de Projetos Ltda, Brazil
-
- 14:45–15:05 Karen Bayne, New Zealand Forest Research Institute (SCION), New Zealand
The Environment for Innovation within the New Zealand Forest Sector
- 15:05–15:25 Kendall Conroy, Oregon State University, USA
Roadblocks, Hurdles, and Glass Ceilings: The Female Executive Perspective
- 15:25–15:45 Eric Hansen, Oregon State University, USA
Lingering Impacts of the Global Financial Crisis: Innovativeness of US Forest Sector Manufacturers
- 15:45–16:05 Andreja Kutnar, University of Primorska, Slovenia
Public Perceptions of Wood as Building Material
- 16:05–16:25 Henry Quesada-Pineda, Virginia Tech, USA
Measuring Effectiveness of Kaizen Events within the Wood Products Industry
- 16:25–16:45 Discussion and Questions

Tuesday, March 8

-
- 8:00–12:00 **Chemistry and Forest Products Utilization Session**
Moderators Gloria Oporto, West Virginia University, USA; and Flavio Geraldo, Lonza, Brasil
-
- 8:00–8:20 Flavio Geraldo, Lonza - Arch, Brasil
Wood Protection in Brasil - An Overview

59th SWST International Convention, March 6–10, 2016
FOREST RESOURCE AND PRODUCTS: MOVING TOWARD A SUSTAINABLE FUTURE



Tuesday, March 8 *continued*

- 8:20–8:40 Charles Frihart, US Forest Products Laboratory, USA
Potential for Biobased Adhesives in Wood Bonding
- 8:40–9:00 Jerrold Winandy, University of Minnesota, USA
Relating Wood Chemistry and Strength
- 9:00–9:20 Svetka Kuljich, Laval University, Canada
Chip Formation Studied by High Speed Photography during Log Fragmentation by a Chipper-canter
- 9:20–9:40 Sudipta Dasmohapatra, North Carolina State University, USA
Biomass to Energy Utilization - Sustainability Metrics
- 9:40–10:00 Discussion and Questions
- 10:00–10:20 COFFEE BREAK
- 10:20–10:40 Andrea Cardoso, Universidad ORT, Uruguay
Proposal of Visual Grading Rules for Uruguayan Loblolly and Slash Pine Timber
- 10:40–11:00 Leandro Domenech, Universidad de la República, Uruguay
Advances on Structural Design with Timber in Uruguay: Towards a Proposal for a National Annex to Eurocode 5
- 11:00–11:20 Tâmara Suely Filgueira Amorim França, Mississippi State University, USA
Visual and Mechanical Properties of Southern Pine No.2 Lumber
- 11:20–11:40 Frederico José Nistal França, Mississippi State University, USA
Assessing Southern Pine 2 x 4 Lumber
- 11:40–12:00 Richard D. Bergman, US Forest Products Laboratory, USA
Gate-to-gate GHG Emissions for Carbon Activation of Biochar
- 12:00–13:00 LUNCH
- 13:00–13:30 Business Meeting
-
- 13:45–16:00 Biomass and Bioenergy Session**
Moderators Jingxin Wang, West Virginia University, USA; and Alex Berg, Universidad de Concepción, Chile
-
- 13:45–14:05 Alex Berg, Universidad de Concepción, Chile
Biomass as an Energy Source in Chile
- 14:05–14:25 Richard Bergman, US Forest Products Laboratory, USA
Estimating GHG Emissions from the Manufacturing of Field-Applied Biochar Pellets
- 14:25–14:45 Jingxin Wang, West Virginia University, USA
Integrated Techno-Economic and Life Cycle Analyses of Biomass for Bioproducts
- 14:45–15:05 Eini Lowell, USDA Forest Service, PNW Research Station, USA
Biofuels from Forest Residuals – What is on the Minds of Stakeholders?
- 15:05–15:25 Robert Smith, Virginia Tech, USA
Sustainability Factors Impacting United States Advanced Biofuel Projects
- 15:25–15:45 Discussion and Questions
- 15:45–16:00 COFFEE BREAK
-
- 16:00–18:30 Poster Session and Student Poster Competition**
Moderator Manja Kuzman, University of Ljubljana, Slovenia
-

59th SWST International Convention, March 6–10, 2016
FOREST RESOURCE AND PRODUCTS: MOVING TOWARD A SUSTAINABLE FUTURE



Tuesday, March 8 *continued*

****Stephen Amiandamhen, University of Stellenbosch, South Africa**

Effect of Barks on the Physical and Mechanical Properties of Phosphate Bonded Wood Composites of Black Wattle (*Acacia mearnsii*)

****Kendall Conroy, Oregon State University, USA**

Roadblocks, Hurdles, and Glass Ceilings: The Female Executive Perspective

****Victor Almeida De Araujo, University of São Paulo, Brasil**

Problems and Possible Solutions to the Wood Waste from the Wooden Housing Production in Brasil

****Jennifer DeBoer, University of British Columbia, Canada**

Typology of Sustainable Forest Certifications

****Tâmara Suely Filgueira Amorim França, Mississippi State University, USA**

Natural Durability of Two Species of African Mahogany Planted in Brasil Against Termite Attack

Charles Frihart, US Forest Products Laboratory, USA

Soy Products for Wood Bonding

****Annika Hyytiä, University of Helsinki, Finland**

Sustainable Development - International Framework - Overview and Analysis in the Context of Forests and Forest Products - Ecosystem Services and Competitiveness in the Bio-economy with Stakeholders

Claudia Ibañez, Universidad de la República, Uruguay

Natural Durability of Wood from Two Species of Eucalyptus: *E. bosistoana* and *E. sideroxylon*

Gaurav Kakkar, Virginia Tech, USA

Assessment of Pre-fabricated Wooden Homes as an Affordable Housing Alternative for Low Income Households

Manja Kitek Kuzman, University of Ljubljana, Slovenia

Understanding Eco-innovation in Slovenia

Jin Heon Kwon, Kangwon National University, Republic of Korea

Three Grades of Liquid Urea-formaldehyde (UF) Resins with Different Formaldehyde Emission Levels such as Super EO (SEO)

****Paige McKinley, Oregon State University, USA**

Multi-scale Investigation of Adhesive Bond Durability

****Priscilla Morris, North Carolina State University, USA**

Ecosystem Services: Providing Economically Sustainable Options for Forest-Based Industries in Rural Coastal Communities

****Frederico José Nistal França, Mississippi State University, USA**

Nondestructive Assessment of *Eucalyptus grandis* vs *Eucalyptus urophylla*

Ilona Peszlen, North Carolina State University, USA

Characterization and Enzymatic Hydrolysis of Genetically Modified *Pinus taeda* with Decreased Lignin Content and Incorporated Syringyl Lignin

Henry Quesada-Pineda, Virginia Tech, USA

Sustainability Factors Leading to Advanced Biofuel Cellulosic Project Success

*** indicates participation in Student Poster Competition*

schedule continues on next page

59th SWST International Convention, March 6-10, 2016
FOREST RESOURCE AND PRODUCTS: MOVING TOWARD A SUSTAINABLE FUTURE



Wednesday, March 9

Conference Tour - Sustainable Wood Structures and Culture in Curitiba (Separate \$50 charge - not included in registration fee)

Thursday, March 10

8:00-12:00 Sustainable Wood Construction Session - Moderators Sudipta Dasmohapatra, North Carolina State University, USA; and Carlito Calil, Universidade de São Paulo, Brasil

8:00-8:30 Victor Almeida De Araujo, University of São Paulo, Brasil
Wood Waste Generated by the Wooden Housing Manufacturers in the Brazilian State of São Paulo

8:30-9:00 Jorge Daniel De Melo Moura, Londrina State University, Brasil
Facing Some Challenges on Wooden Construction in Paraná State - Brasil

9:00-9:30 Manja Kitek Kuzman, University of Ljubljana, Slovenia
Comparison of Timber House Technologies in Slovenia and Sweden

9:30-10:00 Andreja Kutnar, University of Primorska, Slovenia
InnoRenew CoE - Renewable Materials and Healthy Environments Research and Innovation Centre of Excellence - Innovative Renewable Material Uses Living Laboratory (LL InnoRenew)

10:00-10:30 Katharina Lehmann, Blumer-Lehmann AG, Switzerland
Welcome to the World of Wood

10:30-11:00 COFFEE BREAK

11:00-11:30 Pedro Moreira, Tecverde, Brasil
Pre-manufactured Light Wood Frame House Construction in Brasil

11:30-12:00 Vini Barreto, ITA, Brasil and Neto Calil, REWOOD, Brasil
Glued Laminated Timber in Brasil

12:00-13:00 LUNCH

13:15-15:15 **Early Stage Researcher Session**
Moderator Paige McKinley, Oregon State University, USA

13:15-13:30 Stephen Amiandamhen, University of Stellenbosch, South Africa
Effect of Barks on the Physical and Mechanical Properties of Phosphate Bonded Wood Composites of Black Wattle (*Acacia mearnsii*)

13:30-13:45 Annika Hyytiä, University of Helsinki, Finland
Sustainable Development - International Framework - Overview and Analysis in the Context of Forests and Forest Products - A Policy Point of View with the CSR

13:45-14:00 Priscilla Morris, North Carolina State University, USA
Ecosystem Services: Providing Economically Sustainable Options for Forest Industries in Rural Coastal Communities

14:00-14:15 COFFEE BREAK

59th SWST International Convention, March 6–10, 2016
FOREST RESOURCE AND PRODUCTS: MOVING TOWARD A SUSTAINABLE FUTURE



Thursday, March 10 *continued*

- 14:15–14:30** Roger Moya, Instituto Tecnológico de Costa Rica, Costa Rica
Improving of Drying Time and Color of Juvenile Wood of *Tectona grandis* in Kiln Dry
- 14:30–14:45** Jennifer DeBoer, University of British Columbia, Canada
Systematic Review of the Environmental Performance and Sectoral Competitiveness of Canada's Forest Industry
- 14:45–15:00** Paige McKinley, Oregon State University, USA
Early Stage Researcher Committee Report on Activities
- 15:00–15:15** Discussion and Questions
- 15:15–17:00** II Expo Wood and Construction - Renault Expo Center, Parque Barigüi
-
- 18:30–20:00** **Closing Ceremony and Banquet - KF Grill Churrascaria**
-