

Monday, June 1st

Time	Room	No.	Presentations
09:00-10:00 h Mo, June 1st	HG E5	AL	Wood cellulose nanomaterials: diverse and unique structures, morphologies, and characteristics Akira Isogai <i>University of Tokyo, Japan</i>
10:00-10:30 h Mo, June 1st	HG E5	PL1	Wood anatomy and (ultra)structure: the need for connecting scales and organs in plant hydraulics Veronica De Micco <i>Department of Agricultural Sciences, University of Naples Federico II, Piazza Carlo di Borbone n. 1, Portici, Naples, Italy</i>
11:00-11:30 h Mo, June 1st	HG E5	PL2	X-ray scattering and solid-state NMR reveal wheat straw cell wall architecture and pre-treatment disruption of lignin-carbohydrate interactions Feng Xu, Yucheng Hu <i>State Key Laboratory of Efficient Production of Forest Resources, Beijing Key Laboratory of Lignocellulosic Chemistry, Beijing Forestry University, China</i>
11:30-12:00 h Mo, June 1st	HG E5	PL3	Processing and tuning lignin/cellulose multiphase plastics Marie-Pierre Laborie <i>Luxembourg Institute of Science and Technology (LIST), Functional Polymeric and Particulate Materials</i>
13:00-15:00 h Mo, June 1st	HG E5	WA	Wood Anatomy and Structure
13:00-13:20 h Mo, June 1st	HG E5	WA1	Oversights in the study of wooden cultural heritages by wood anatomists Yoon Soo KIM, Jong-Sik KIM <i>Chonnam National University, Gwangju, South Korea</i>
13:20-13:40 h Mo, June 1st	HG E5	WA2	Node development and structure in monocots, the multi-layer phloem networks in corn (<i>Zea mays</i>) versus horizontal circular vascular patterns around the pith in rice (<i>Oryza sativa</i>) Roni Aloni¹, Jim Mattsson² <i>¹Tel Aviv University, Israel</i> <i>²Simon Fraser University, BC, Canada</i>

13:40-14:00 h Mo, June 1st	HG E5	WA3	Wood anatomy - from tradition into the digital future: Development of new methodological approaches for the identification of internationally traded timber Gerald Koch , Immo Heinz, Volker Haag, Andrea Olbrich <i>Thünen-Institut of Wood Research, Hamburg, Germany</i>
14:00-14:20 h Mo, June 1st	HGE5	WA4	Touch the history through wooden relics in China Yafang Yin ^{1,2,3} , Juan Guo ^{1,2,3} , Lichao Jiao ^{1,2,2} , Yang Lu ^{1,2,3} , Ren Li ^{1,2,3} , Chang Zheng ^{1,2,3} ¹ Research Institute of Wood Industry, Chinese Academy of Forestry, China ² Wood Collection, Chinese Academy of Forestry, China ³ Key Laboratory of Wood, National Forestry and Grassland Administration, China
14:20-14:40 h Mo, June 1st	HGE5	WA5	IAWS activities and emerging trends in wood anatomy and dendrochronology Katarina Čufar <i>University of Ljubljana, Biotechnical Faculty, Department of Wood Science and Technology</i>
14:40-15:00 h Mo, June 1st	HGE5	WA6	Beyond wood anatomy: a unifying framework for functional, historical, and applied wood science Alan Crivellaro <i>Department of Agricultural, Forest and Food Sciences. Università degli Studi di Torino, Italy & Forest Biometrics Laboratory, Faculty of Forestry, "Stefan cel Mare" University of Suceava, Romania</i>
15:25-16:25 h Mo, June 1st	HG E5	WA	Wood Anatomy and Structure
15:25-15:45 h Mo, June 1st	HG E5	WA7	Diverse wood anatomical responses of beech and oak to climatic variability in Slovenia Peter Prislan , Jernej Jevšenak, Domen Arnič, Gregor Božič, Luka Krajnc, Marjana Westergren, Hojka Kraigher, Polona Hafner, Jožica Gričar <i>Slovenian Forestry Institute, Slovenia</i>
15:45-16:05 h Mo, June 1st	HG E5	WA8	Insights from 4D Micro-CT: Does density fully govern compressive failure in wood? Bingrui Chen ^{1,2,3} , Matthieu Boone ^{2,4} , Wim Van Paepegem ³ , Joris Van Acker ^{1,2} , and Jan Van den Bulcke ^{1,2} ¹ UGent-Woodlab, Laboratory of Wood Technology, Department of Environment, Faculty of Bioscience Engineering, Ghent University, Belgium ² Ghent University Centre for X-ray Tomography - UGCT, Ghent University, Belgium ³ UGent-MMS, Mechanics of Materials and Structures, Department of Materials, Textiles and Chemical Engineering, Ghent University, Belgium ⁴ Department of Physics and Astronomy - Radiation Physics, Faculty of Sciences, Ghent University, Belgium

16:05-16:25 h Mo, June 1st	HG E5	WA9	Automated wood identification on microscopic images of fibrous materials and μ CT of solid wood Stephanie Helmling ¹ , Jördis Sieburg-Rockel ¹ , Lars Nieradzick ² , Janis Keuper ² , Linghui Liu ² , Thomas Weibel ² , Petra Gospodnetić ² , Falco Hirschenberger ² , Stephanie Wrage ¹ , Henrike Stephani ² , Andrea Olbrich ¹ , Jannik Stebani ^{3,4} , Tim Lehne ¹ , Kilian Dremel ³ , Simon Zabler ^{3,5} , Volker Haag ¹ <i>¹Thünen Institute of Wood Research, Germany</i> <i>²Fraunhofer Institute for Industrial Mathematics ITWM, Germany</i> <i>³Development Center X-ray Technology EZRT, Fraunhofer Institute for Integrated Circuits IIS, Germany</i> <i>⁴Experimental Physics 5, Faculty of Physics, University of Würzburg, Germany</i> <i>⁵Deggendorf Institute of Technology (THD), Faculty of Computer Science, Germany</i>
13:00-15:00 h Mo, June 1st	HG E1.2	NM	Novel Materials Derived from Wood
13:00-13:20 h Mo, June 1st	HG E1.2	NM1	Mechanical properties enhancement of wood veneer by incorporating cellulose nanocrystals Dilpreet Bajwa ¹ , Ismat Ara ¹ , Lewis M Cox ¹ , Nicole Stark ² , Joseph Jakes ² , Rana M Arani ¹ <i>¹Montana State University, Bozeman, MT, USA</i> <i>²USDA Forest Products Laboratory, Madison, WI, USA</i>
13:20-13:40 h Mo, June 1st	HG E1.2	NM2	Transforming wood into functional materials via dissolution-regeneration processing with molten salt hydrates Xuejun Pan <i>University of Wisconsin-Madison, USA</i>
13:40-14:00 h Mo, June 1st	HG E1.2	NM3	Regulated construction of cellulose functional materials and their applications in energy and light/thermal management Sheng Chen, Feng Xu <i>School of Materials Science and Technology, Beijing Forestry University, China</i>
14:00-14:20 h Mo, June 1st	HG E1.2	NM4	Lignin reassembly and relocalization in wood: sustainable energy harvesting Xuetong Shi ¹ , Yi Lu ^{1,4} , Ran Bi ¹ , Yi Hu ¹ , Xin Shu ¹ , Peipei Wang ¹ , Yeedo Chun ¹ , Zhixiang Chen ⁵ , Chris Zhou ¹ , Orlando J. Rojas ^{1,2,3} <i>¹Bioproducts Institute, Department of Chemical & Biological Engineering, 2360 East Mall, The University of British Columbia, Canada</i> <i>²Department of Chemistry, University of British Columbia, 2036 Main Mall, Vancouver, Canada</i> <i>³Department of Wood Science, The University of British Columbia, 2424 Main Mall, Vancouver, Canada</i>

			⁴ <i>Institute of Process Engineering, Chinese Academy of Sciences, Beijing, China</i> ⁵ <i>Ju Long College, Shenzhen Technology University, Shenzhen, China</i>
14:20-14:40 h Mo, June 1st	HG E1.2	NM5	Solid-state adsorption for wood surface functionalization: from molecular conformation to mechanical energy generation Wenyang Xu ^{1,2,3} , Han Tao ² , Eric Tyrode ³ , Eero Kontturi ¹ ¹ <i>Sustainable and Bio-Inspired Materials Department, Max Planck Institute of Colloids and Interfaces, Potsdam, Germany</i> ² <i>Department of Chemistry, KTH, Stockholm, Sweden</i> ³ <i>Department of Bioproducts and Biosystems, School of Chemical Engineering, Aalto University, Finland</i>
14:40-15:00 h Mo, June 1st	HG E1.2	NM6	Towards continuous production of translucent wood films via calendering W. A. Barth ¹ , G. Bechstein ¹ , A. Wagenführ ² , S. Fischer ¹ ¹ <i>Institute of Plant and Wood Chemistry, University of Technology Dresden, Germany</i> ² <i>Institute of Natural Materials Technology, University of Technology Dresden, Germany</i>
15:25-16:45 h Mo, June 1st	HG E1.2	NM	Novel Materials Derived from Wood
15:25-15:45 h Mo, June 1st	HG E1.2	NM7	Re-engineering wood across scales: nanostructural control of mechanical, optical, and energy functionalities Orlando J. Rojas ^{1,2,3} ¹ <i>BioProducts Institute, Department of Chemical & Biological Engineering and Departments of ²Chemistry and ³Wood Science, University of British Columbia, Canada</i>
15:45-16:05 h Mo, June 1st	HG E1.2	NM8	Splitting wood fibres – Targeted liberation of cellulose fibrils from the wood cell wall Felicitas von Usslar, Büşra Ece Günaydın, Cordt Zollfrank <i>Chair for Biogenic Polymers – TUM Campus Straubing for Biotechnology and Sustainability – Technische Universität München</i>
16:05-16:25 h Mo, June 1st	HG E1.2	NM9	Topochemical control of lignin for biomass-based energy materials Ran Bi ¹ , Xuotong Shi ¹ , Tianyu Guo ¹ , Peipei Wang ¹ and Orlando Rojas ^{1,2,3} ¹ <i>BioProducts Institute, Department of Chemical & Biological Engineering and Departments of ²Chemistry and ³Wood Science, University of British Columbia, Canada</i>
16:25-16:45 h Mo, June 1st	HG E1.2	NM10	Suberin in birch bark: from extraction to application Xun Niu , Markus Antonietti <i>Max Planck Institute of Colloids and Interfaces, Germany</i>

Monday, June 1st

17:00-18:30 h Mo, June 1st	Foyer		Poster Session
		P1	Reinforcement of wood with partially bio-based fibre materials to improve its property profiles Mario Zauer , Lea Semmler, Tobias Dietrich, Alexander Pfriem <i>Wood Technology and wood-based Bioeconomy, Dresden University of Technology</i>
		P2	Mid- and high-rise timber buildings: Benchmarks in structural systems and design tendency Libo Yan ^{1,2} , Haoze Chen ² , Junaid Ajaz Dand ² ¹ <i>Fraunhofer Institute for Wood Research Wilhelm-Klauditz-Institut WKI, Germany</i> ² <i>Institute for Building Materials, Concrete Construction and Fire Safety, Technische Universität Braunschweig, Germany</i>
		P3	Wood substitution with oilseed pomaces as a tool for modulating mould resistance in Wood-Plastic Composites Karolina Lipska ¹ , Izabela Betlej ² , Piotr Boruszewski ¹ ¹ <i>Institute of Wood Sciences and Furniture, Department of Technology and Entrepreneurship in Wood Industry, Warsaw University of Life Sciences, Warsaw, Poland</i> ² <i>Institute of Wood Sciences and Furniture, Department of Wood Science and Wood Protection, Warsaw University of Life Sciences, Warsaw, Poland</i>
		P4	Bio-based adhesives for particleboard and MDF Marek Kalanin ^{1,2} , Wilfried Sailer-Kronlachner ^{1,2} , Catherine Rosenfeld ^{1,2} , Johannes Konnerth ² , Hendrikus W. G. van Herwijnen ^{1,2} ¹ <i>Wood K plus - Competence Centre for Wood Composites and Wood Chemistry, Kompetenzzentrum Holz GmbH, Austria</i> ² <i>BOKU University, Institute of Wood Technology and Renewable Materials, Department of Natural Sciences and Sustainable Resources, Vienna, Austria</i>
		P5	Computer vision-based prediction of quality and mechanical properties of wooden lamellae Julia Achatz ^{1,2} , Lukas Speigl ³ , Roman Elsener ¹ , Ingo Burgert ² , Andreas Rigling ³ and Mark Schubert ¹ ¹ <i>Empa Material Science & Technology, Cellulose and Wood Materials, Group WoodTec, Switzerland</i> ² <i>Wood Materials Science, Institute for Building Materials, ETH Zürich, Switzerland</i> ³ <i>ETH Zürich, Switzerland</i>

		P6	<p>Artificial intelligence for the discovery of bio-based assembled materials Botyo Dimitrov^{1,2}, Ingo Burgert^{1,2}, Gustav Nyström^{1,3}, Mark Schubert¹ ¹Cellulose and Wood Materials Group, Empa, Switzerland ²Wood Materials Science, Institute for Building Materials, ETH Zürich, Switzerland ³Institute of Food Nutrition and Health, ETH Zürich, Switzerland</p>
		P7	<p>Veneer pultrusion – continuous production of profiles Carolin Siegel¹, Eckart Kunze², Christian Korn¹ ¹TU Dresden, Chair of Wood Technology and wood-based Bioeconomy, Germany ²TU Dresden, Institute of Lightweight Engineering and Polymer Technology, Germany</p>
		P8	<p>Recyclable mineral binder for flame-retardant sawdust composites Ronny Kürsteiner¹, Dan Vivas Glaser¹, Maximilian Ritter^{1,2}, Annapaola Parrilli³, Jonas Garemark¹, Lorenza Maddalena⁴, Thomas Schnider¹, Christopher H. Dreimol^{1,2}, Federico Carosio⁴, Ingo Burgert^{1,2} and Guido Panzarasa¹ ¹Wood Materials Science, Institute for Building Materials, ETH Zurich, Switzerland ²WoodTech, Cellulose & Wood Materials, Empa, Switzerland ³Center for X-ray Analytics, Empa, Switzerland ⁴Dipartimento di Scienza Applicata e Tecnologia, Politecnico di Torino - Sede di Alessandria, Italy Recyclable Mineral Binder for Flame-Retardant Sawdust Composites</p>
		P9	<p>Norway spruce infested by the bark beetle (<i>Ips typographus</i>) and its suitability as coated façade cladding Tina Künniger, Markus Heeb Cellulose & Wood Materials, Empa, Switzerland</p>
		P10	<p>Polyphenolic plant extracts and their potential in the bioprotection of wood materials against xylophagous organisms Katia Ruel¹, Daouia Messaoudi² and Jean-Paul Joseleau¹ ¹Link Conseil, France ²Groupe BERKEM – Laboratoires R&D, France</p>
		P11	<p>Measurement of the mass diffusivity of a coating on wood Rémond R.¹, Perré P.², Duveau A.¹, Stephan A.¹ ¹Université de Lorraine, INRAE, LERMAB, France ²Université Paris-Saclay, CentraleSupélec, LGPM, France ²Université Paris-Saclay, CentraleSupélec, LGPM, Centre Européen de Biotechnologie et de Bioéconomie (CEBB), France</p>

		P12	Wood luminescent solar concentrator Dan Vivas Glaser , Simon Clemens, Guido Panzarasa <i>Wood Materials Science, Institute for Building Materials, ETH Zurich, Switzerland</i>
		P13	Alternative high-temperature techniques for wood surface charring: Comparative evaluation Jozef Rahel ¹ , Jakub Domyeny ¹ , Lucie Zárybnická ² , Petra Macova ² , Barbora Mayer ¹ , David Prusa ¹ , Petr Cermak ¹ ¹ <i>Department of Wood Science and Technology, Mendel University in Brno, Czech Republic</i> ² <i>Institute of Theoretical and Applied Mechanics of the Czech Academy of Sciences, Prague, Czech Republic</i>
		P14	In-situ laser-induced chemical formation of hexagonal boron nitride coatings on wood Mélanie Rouèche ¹ , Jonas Garemark ¹ and Ingo Burgert ^{1,2} ¹ <i>Wood Materials Science, Institute for Building Materials, ETH Zurich, Switzerland;</i> ² <i>WoodTec Group, Cellulose & Wood Materials, Empa, Switzerland</i>
		P15	The role of moisture gradients and time scales in wood mechanosorption Júlio Amando de Barros , Falk K. Wittel <i>Institute for Building Materials, ETH Zurich, Switzerland</i>
		P16	Water-resistant structural colour coatings from cellulose nanocrystals on wood surfaces Bharathan Govindarajan , Celia Lointier, Johannes Konnerth, Claudia Gusenbauer <i>Institute of Wood Technology and Renewable Materials, BOKU University, Vienna, Austria</i>
		P17	Species-dependent super-black wood formation following CF ₄ and O ₂ plasma etching Xiaowei Xu ¹ , Kenneth J. Cheng ¹ and Philip D. Evans ^{1,2} ¹ <i>Department of Wood Science, University of British Columbia, Vancouver, Canada</i> ² <i>Department of Materials Physics, The Australian National University, Canberra, Australia</i>
		P18	Living UV and moisture-protecting coating for wood surfaces Elena Passaretti ^{1,2} , Francis Schwarze ¹ , Gustav Nyström ¹ , Ingo Burgert ² ¹ <i>Cellulose and Wood Materials, Empa, Swiss Federal Laboratories for Materials Science and Technology, Switzerland</i> ² <i>Wood Materials Science, ETH Zurich, Switzerland</i>
		P19	Native wood membranes for nanoplastic filtration Ritter, M. ^{1,2} , Pradel, A. ³ , Mitrano, D.M. ³ , Wenqing, Y. ^{1,2} ¹ <i>Wood Materials Science, ETH Zurich, Switzerland</i> ² <i>Cellulose and Wood Materials, Empa, Switzerland</i> ³ <i>Environmental Systems Science Department, ETH Zürich, Switzerland</i>

		P20	<p>Multifactorial analysis of properties governing gluability in hybrid engineered wood products Roman Elsener¹, Ingo Burgert^{1,2}, Mark Schubert¹ ¹Laboratory for Cellulose & Wood Materials, Empa–Swiss Federal Laboratories for Materials Science and Technology, Ueberlandstrasse 129, Dübendorf 8600, Switzerland ²Wood Materials Science, Institute for Building Materials, ETH Zurich, Laura-Hezner-Weg 7, Zurich 8093, Switzerland</p>
		P21	<p>Leaching of copper-based preservative from traditional wood shingle roofing Patricia Granado Sanzovo Bern University of Applied Sciences- Architecture, Wood and Civil Engineering, Solothurnstrasse 102, CH-2504, Biel, Switzerland</p>
		P22	<p>Temporal dynamics of wood life cycle assessment: Over a decade of retrospective on inventory evolution and impact prediction amidst standard transitions Stephan Ott Thünen Institute of Wood Research</p>
		P23	<p>Wood as an Active Humidity Sensor: Integrated Environmental Monitoring via Iron-Catalyzed Laser-Induced Graphitization Christopher H. Dreimol^{1,2} ¹ Wood Materials Science, Institute for Building Materials, ETH Zurich, 8093 Zurich, Switzerland ² WoodTech, Cellulose & Wood Materials, Empa, 8600 Dübendorf, Switzerland</p>
		P24	<p>Hierarchically Architected Wood-Derived Xerogels: Toward Absorption-Dominant EMI Shielding Sara Rostami^{1,2}, Ahmadreza Ghaffarkhah^{1,2}, Lukas Alexander Bauman², Orlando J. Rojas^{2*}, Mohammad Arjmand^{1*} ¹Nanomaterials and Polymer Nanocomposites Laboratory, School of Engineering, University of British Columbia, Kelowna, BC, V1V 1V7, Canada ²Bioproducts Institute, Department of Chemical & Biological Engineering, The University of British Columbia, 2360 East Mall, Vancouver, BC, V6T 1Z3, Canada</p>

Tuesday, June 2nd

Time	Room	No.	Presentations
08:30-09:00 h Tue, June 2nd	HG E5	PL4	Transparent protection: The elusive quest for durable exterior clear coatings for wood Philip D. Evans ^{1,2} <i>¹Department of Wood Science, University of British Columbia, Vancouver, Canada</i> <i>²Department of Materials Physics, The Australian National University, Canberra, Australia</i>
09:00-09:30 h Tue, June 2nd	HG E5	PL5	Reflections on wood as a raw and construction material based on selected projects at TU Graz Gerhard Schickhofer <i>Institute of Timber Engineering and Wood Technology, Graz University of Technology</i>
09:30-10:00 h Tue, June 2nd	HG E5	PL6	Wood durability and innovative wood protection Holger Militz <i>Georg-August-University Göttingen, Germany</i>
10:30-11:00 h Tue, June 2nd	HG E5	PL7	Wood material properties and mechanics Andreja Kutnar <i>InnoRenew CoE, UP IAM & UP Famnit, University of Primorska, Titov trg 4, 6000 Koper, Slovenia</i>
11:00-11:30 h Tue, June 2nd	HG E5	PL8	Wood processing of Chilean hardwoods Rubén A. Ananias, Víctor Sepúlveda-Villarroel, Linette Salvo-Sepúlveda <i>Department of Process and Bioproduct Engineering, Research Laboratory of Wood Drying and Heat Treatments, Faculty of Engineering, University of Bío-Bío, Concepción, Chile</i>
13:00-15:00 h Tue, June 2nd	HG E5	TE	Timber Engineering
13:00-13:20 h Tue, June 2nd	HG E5	TE1	A damage accumulation approach to the strength of new, in-situ and recovered wood J.W.G. van de Kuilen ^{1,2} <i>¹Technical University of Munich, Germany</i> <i>²Delft University of Technology, Netherlands</i>
13:20-13:40 h Tue, June 2nd	HG E5	TE2	Engineered bamboo and timber structures Xiao Yan <i>Zhejiang University-University of Illinois Institute, Zhejiang University, China</i>

13:40-14:00 h Tue, June 2nd	HG E5	TE3	Ductile load redistribution in dowelled steel-to-timber connections under a column removal scenario Katharina Sroka ^{1,2} , Pedro Palma ¹ , Andrea Frangi ² <i>¹Empa - Swiss Federal Laboratories for Materials Science and Technology, Switzerland</i> <i>²ETH Zurich, Institute of Structural Engineering, Switzerland</i>
14:00-14:20 h Tue, June 2nd	HG E5	TE4	From life-cycle optimization to joint strategy: Adaptive design of sustainable timber lattice shells Firas Hawasly ¹ , Chi-tathon Kupwiwat ² <i>¹Institute of Wood Technology, Akita Prefectural University, Noshiro, Japan</i> <i>²Department of Architecture, Chulalongkorn University, Bangkok, Thailand</i>
14:20-14:40 h Tue, June 2nd	HG E5	TE5	Bending performance of dowel-laminated timber made of reclaimed beams Mohammad Derikvand , Andreja Kutnar <i>InnoRenew CoE, UP IAM & UP FAMNIT, University of Primorska, Slovenia</i>
14:40-15:00 h Tue, June 2nd	HG E5	TE6	Long-term marine exposure and durability assessment of wooden piles: Findings from a 10-year study Ryu Noda ¹ , Noboru Fujimoto ² , Tomoya Murano ³ <i>¹Institute of Wood Technology, Akita Prefectural University, Japan</i> <i>²Tohoku Professional University of Agriculture and Forestry, Japan</i> <i>³Forestry and Forest Products Research Institute, Japan</i>
15:25-16:25 h Tue, June 2nd	HG E5	TE	Timber Engineering
15:25-15:45 h Tue, June 2nd	HG E5	TE7	Non-destructive detection of degradation in urea formaldehyde structural wood adhesive bonds by NMR relaxometry Philippe Grönquist ^{1,2} , Maximilian Mehl ^{1,2} , Maximilian Henning ² , Sabina Haber-Pohlmeier ^{2,3} , Gerhard Dill-Langer ² , and Jürgen Frick ² <i>¹Institute of Construction Materials, University of Stuttgart, Germany</i> <i>²Materials Testing Institute, University of Stuttgart, Germany</i> <i>³Institute of Bio- and Geosciences, Forschungszentrum Jülich GmbH, Germany</i>

15:45-16:05 h Tue, June 2nd	HG E5	TE8	Recent advances in assessing the behaviour of wooden bond lines in fire – relating laboratory to full scale testing approaches Aaron Münzer , Simon Aicher <i>Materials Testing Institute, University of Stuttgart, Germany</i>
16:05-16:25 h Tue, June 2nd	HG E5	TE9	Adhesively bonded timber-concrete composite decking system: experimental studies, long-term and fire performance and practice recommendations Libo Yan ^{1,2} , Ali Nemat Giv ² and Haoze Chen ² ¹ <i>Fraunhofer Institute for Wood Research, Germany</i> ² <i>Technische Universität Braunschweig, Germany</i>
16:25-17:45 h Tue, June 2nd	HG E5	WP	Wood processing
16:25-16:45 h Tue, June 2nd	HG E5	WP1	Intergraded research and collaboration on forest-wood value chain in the S-P-F species in East Canada Tony Zhang ^{1,2} ¹ <i>International Centre for Bamboo and Rattan, China</i> ² <i>FP Innovations, Canada</i>
16:45-17:05 h Tue, June 2nd	HG E5	WP2	Engineered bamboo for sustainable construction: Science, technology and the path forward Chunping Dai <i>Department of Wood Science, Faculty of Forestry and Environmental Stewardship, The University of British Columbia</i>
17:05-17:25 h Tue, June 2nd	HG E5	WP3	Integrating biobased materials into modern boat building: A sustainable wood infusion approach Alexander Pfriem ¹ , Anja Kampe ² and Jan Brügge ³ ¹ <i>TUD Dresden University of Technology, Chair of Wood Technology and wood-based Bioeconomy</i> ² <i>Eberswalde University for Sustainable Development, Germany,</i> ³ <i>Jan Brügge Bootsbau GmbH</i>

17:25-17:45 h Tue, June 2nd	HG E5	WP4	Laser-drilled wood with improved pore accessibility and dimensional stability as a modification scaffold Yong Ding ^{1,2} <i>¹Wood Materials Science, ETH Zürich, Switzerland</i> <i>²WoodTec Group, Cellulose & Wood Materials, Empa, Switzerland</i>
13:00-15:00 h Tue, June 2nd	HG E1.2	WPM	Wood Protection and Mycology
13:00-13:20 h Tue, June 2nd	HG E1.2	WPM1	Carbon quantum dots as multifunctional nano-enhancers for wood protection and restoration Jinzhen Cao , Xiaoqi Zhao, Yanan Dong, Xinyi Chen <i>State Key Laboratory of Efficient Production of Forest Resources & Beijing Key Laboratory of Wooden Material Science and Application, Beijing Forestry University, China</i>
13:20-13:40 h Tue, June 2nd	HG E1.2	WPM2	Efficacy of Arnica-based wood preservatives from Berkem Biosolutions® against subterranean termites and basidiomycete fungi: A comprehensive laboratory and field evaluation Jean-Paul Joseleau ¹ , Daouia Messaoudi ² , Katia Ruel ¹ <i>¹Link Conseil, France,</i> <i>²Groupe BERKEM – Laboratoires R&D, France</i>
13:40-14:00 h Tue, June 2nd	HG E1.2	WPM3	Assessing natural durability and its variability: the specific case of Cryptomeria japonica from Reunion Island J. Vuillemin ¹ , A. Bastide ² , F. Davrieux ^{3,4} , M.F. Thévenon ^{5,6} <i>¹Qualitropic, La Réunion, France</i> <i>²Department of Sustainable Built Environment, University of Reunion, France</i> <i>³CIRAD, UMR Qualisud, La Réunion, France</i> <i>⁴Qualisud, Avignon Université, Université de Montpellier, Université La Réunion, Montpellier, France</i> <i>⁵CIRAD, UPR BioWooEB, France</i> <i>⁶BioWooEB, CIRAD, Université de Montpellier, Montpellier, France</i>
14:00-14:20 h Tue, June 2nd	HG E1.2	WPM4	Wood2Wood project: Decontamination and material recovery of post-consumer wood by coupling thermochemical and biological processes Coline Giustiniani , Arnaud Besserer, Nicolas Brosse <i>Université de Lorraine, LERMAB, France</i>

14:20-14:40 h Tue, June 2nd	HG E1.2	WPM5	Fluorescence of mycelium-based composites from the genus Ganoderma – chemical origin, biological triggers and use cases Henrik-Alexander Christ <i>Fraunhofer Institute for Wood Research, Wilhelm-Klauditz-Institut (WKI), Germany</i>
14:40-15:00 h Tue, June 2nd	HG E1.2	WPM6	Mycocomposites for reducing the weight of concrete structures Paul Langlois¹ , Marie-Laure Antoine ^{1,2} , Christelle Perrin ¹ , Julien Lallemand ¹ , Ximena Walerstein ⁴ , Jean-Michel Mechling ⁴ , Nicolas Brosse ¹ , Arnaud Besserer ¹ ¹ <i>Université de Lorraine, LERMAB, Epinal, France</i> ² <i>ENSTIB, Epinal, France</i> ³ <i>Modulatio, Auxerre, France</i> ⁴ <i>IJL, Nancy, France</i>
15:25-17:45 h Tue, June 2nd	HG E1.2	MP	Material Properties
15:25-15:45 h Tue, June 2nd	HG E1.2	MP1	Monitoring the long-term stability of classical guitar necks: evaluating the potential of European-grown wood species in musical instrument manufacturing Jan Van den Bulcke ¹ , Bingrui Chen ¹ , Pieter Goovaerts ¹ , Stijn Willen ¹ , Jacky Walraet ² , Victor Deklerck ³ , Wim Van Paepegem ⁴ , Joris Van Acker¹ ¹ <i>UGent-Woodlab, Laboratory of Wood Technology, Ghent University, Belgium</i> ² <i>Center for Musical Instrument Building, Puurs, Belgium</i> ³ <i>Meise Botanic Garden, Meise, Belgium</i> ⁴ <i>UGent-MMS, Department of Materials, Textiles and Chemical Engineering, Ghent University, Belgium</i>
15:45-16:05 h Tue, June 2nd	HG E1.2	MP2	How do we look upon moisture sorption Lennart Salmén <i>KTH, Stockholm, Sweden</i>
16:05-16:25 h Tue, June 2nd	HG E1.2	MP3	Long-lasting pine: Pinosylvin distribution in a 850 year old tree and in waterlogged archaeological shipwrecks Paraskevi Charambalous ¹ , Jiabao Chen ^{1,2,3,4} , Michael Grabner ⁵ , Yafang Yin ^{2,3,4} , Notburga Gierlinger¹ ¹ <i>BOKU University, Institute for Biophysics, Vienna</i> ² <i>Research Institute of Wood Industry, Chinese Academy of Forestry, Beijing, China</i>

			<p>³Wood Collection, Chinese Academy of Forestry, Beijing, China</p> <p>⁴Key Laboratory of Wood, National Forestry and Grassland Administration, Beijing, China</p> <p>⁵BOKU University, Institute of Wood Technology and Renewable Materials, Vienna</p>
16:25-16:45 h Tue, June 2nd	HG E1.2	MP4	<p>Synchrotron-based in-situ analysis of stress transfer from macro to nano in native and delignified wood at different relative humidities</p> <p>Sophie Marie Koch^{1,2,3}, Maximilian Ritter^{1,2}, Julio Ortiz Amando de Barros^{1,2}, Friedrich Reppe⁴, Christopher Hubert Dreimol^{1,2}, Robert Oswin Kindler^{1,2}, René Verel⁵, Michaela Eder⁴, Peter Fratzl⁴, Ernesto Scoppola⁴, and Ingo Burgert^{1,2}</p> <p>¹Wood Materials Science Group, Institute for Building Materials, ETH Zurich, Switzerland</p> <p>²WoodTec Group, Cellulose & Wood Materials, Empa, Switzerland</p> <p>³Institute of Wood Technology and Renewable Materials, BOKU University, Austria</p> <p>⁴Adaptive Fibrous Materials, Biomaterials, Max Planck Institute of Colloids and Interfaces, Germany</p> <p>⁵Department of Chemistry and Applied Biosciences, ETH Zurich, Switzerland</p>
16:45-17:05 h Tue, June 2nd	HG E1.2	MP5	<p>New insights on mechanosorptive creep in Norway Spruce across the scales</p> <p>Falk K. Wittel, Júlio Amando de Barros, Jonas M. Maas, Alessia Ferrara</p> <p>ETH Zürich, Institute for Building Materials, Switzerland</p>
17:05-17:25 h Tue, June 2nd	HG E1.2	MP6	<p>Wettability of bioadhesives on the aged wood surface</p> <p>Cong Chen¹, Reza Hosseinpourpia^{1,2}</p> <p>¹Department of Forestry and Wood Technology, Linnaeus University, Sweden</p> <p>²College of Forest Resources and Environmental Science, Michigan Technological University, United States</p>
17:25-17:45 h Tue, June 2nd	HG E1.2	MP7	<p>Assessment of various minerals for the reaction-to-fire performance of wood</p> <p>Tom Franke¹, Johannes Karthäuser², Erik Larnøy³ and Thomas Volkmer¹</p> <p>¹Bern University of Applied Sciences, Biel, Switzerland</p> <p>²Georg-August-University Göttingen, Germany</p> <p>³Norwegian Institute of Bioeconomy Research (NIBIO), Ås, Norway</p>

Wednesday, June 3rd

Time	Room	No.	Presentations
09:00-09:30 h Wed, June 3rd	HG E5	PL9	Wood-based panels in the bioeconomy transition: Scientific pathways toward circular and fossil-free materials Stergios Adamopoulos <i>Swedish University of Agricultural Sciences, Department of Forest Bioeconomy and Technology, Box 7008, 750 07 Uppsala, Sweden</i>
09:30-10:00 h Wed, June 3rd	HG E5	PL10	The future of wood science: Circular value creation from processing to bio-based materials Rupert Wimmer <i>Department of Wood Science and Wood Technology, Faculty of Forestry & Wood Technology, Mendel University Brno, Czech Republic</i>
10:00-10:20 h Wed, June 3rd	HG E5	PhD	Thermal dehydration reactions of cellulose in the context of bio-based carbon fiber production Lukas Fliri ^{1,2} , Michael Hummel ¹ <i>¹Institute of Chemistry of Renewable Resources, Department of Natural Sciences and Sustainable Resources, BOKU University, Austria</i> <i>²Department of Bioproducts and Biosystems, Aalto University, Finland</i>
10:20-10:40 h Wed, June 3rd	HG E5	PhD	Innovative lignin nanoparticle manufacturing and applications in sustainable packaging solutions Zhongjin Zhou , Siqun Wang <i>The University of Tennessee, Knoxville</i>
11:15-12:35 h Wed, June 3rd	HG E5	MP	Material Properties
11:15-11:35 h Wed, June 3rd	HG E5	MP8	Nanotomography and modeling as complementary tools for assessing the role of anatomy in wood properties Patrick Perre ^{1,2} <i>¹Université Paris-Saclay, CentraleSupélec, LGPM, Gif-sur-Yvette, France</i> <i>²Université Paris-Saclay, CentraleSupélec, LGPM, CEBB, Pomacle, France</i>

11:35-11:55 h Wed, June 3rd	HG E5	MP9	Assessment of spiral grain on wood quality of Black spruce grown in Labrador, Canada Meng Gong ¹ , Anne LeBrun Ruff ² , Zizhen Gao ¹ , and Xinzhi Qiu ¹ ¹ Wood Science and Technology Centre, University of New Brunswick, Canada ² FPIInnovations, Montreal, Canada
11:55-12:15 h Wed, June 3rd	HG E5	MP10	Impacts of fire severity on wood quality and biotic degradation in boreal forests: insights from Canada's 2023 wildfire season and beyond Cyriac Mvolo ¹ , Jennifer Klutsch ¹ , Emmanuel Boakye ¹ , Ahmed Koubaa ² ¹ Canadian Forest Service, Natural Resources Canada, Canada ² Forest Research Institute, Université du Québec en Abitibi-Témiscamingue, Canada
12:15-12:35 h Wed, June 3rd	HG E5	MP11	Influence of elevation on wood density of trees of different porosity groups Iza Petek , Jožica Gričar, Luka Krajnc Slovenian Forestry Institute, Slovenia
11:15-11:55 h Wed, June 3rd	HG E1.2	WAI	Wood AI
11:15-11:35 h Wed, June 3rd	HG E1.2	WAI1	The use of high-throughput X-ray tomography, a new paradigm for analysing the relationships between the growth conditions of the trees and their resulting wood properties Jean-Michel Leban ¹ , Tojo Ravoajanahary ² , Philippe Jacquin ³ , Renaud Daquitaine ² , Enrico Ursella, ⁴ and Romain Rémond ⁵ ¹ BEF, INRAE, Champenoux, France ² Groupe Siat, Urmatt France ³ SILVA, INRAE, Champenoux, France ⁴ MiCROTEC, Bressanone, Italy ⁵ LERMAB, INRAE, Université de Lorraine, France
11:35-11:55 h Wed, June 3rd	HG E1.2	WAI2	AI-enabled wood technology: Driving efficiency, sustainability, and innovation Julia Achatz ¹ , Roman Elsener ^{1,2} , Botoyo Dimitrov ^{1,2} , Mark Schubert ¹ ¹ Empa Material Science & Technology, Cellulose and Wood Materials, Group WoodTec, Switzerland ² ETH Zürich, Wood Materials Science Group, Switzerland

11:55-12:35 h Wed, June 3rd	HG E1.2	SU	Sustainable Utilization
11:55-12:15 h Wed, June 3rd	HG E1.2	SU1	Hardwood biorefinery planted in Social forestry in Bangladesh Sharmin Islam, M. Mostafizur Rahman, M. Sarwar Jahan <i>Pulp and Paper Research Division, BCSIR Laboratories, Bangladesh</i>
12:15-12:35 h Wed, June 3rd	HG E1.2	SU2	Split wooden rods for structural wood products: Enhancing resource efficiency in hardwood utilization Sandro Stucki ^{1,2} , Julia Achatz ² , Roman Elsener ^{1,2} , Mark Schubert ² , Ingo Burgert ^{1,2} ¹ <i>Wood Materials Science, Institute for Building Materials, ETH Zürich, Switzerland</i> ² <i>Cellulose & Wood Materials, Empa, Swiss Federal Laboratories for Material Science and Technology, Dübendorf, Switzerland</i>