

# Program WSE 2023

## Tuesday 10 Oktober 2023

18:00 Welcome reception [Oslo Opera](#)

## Wednesday 11 October 2023

Registration and morning coffee 08:00

Erik Larnøy Opening of WSE 2023 and presentation of new database 08:30

Frode Lysantre Opening speech from Ministry of Agriculture and Food 09:00

### Session 1 Wood Protection, Chair Holger Militz

Ramunas Digaitis Natural durability of wood exposed above ground 09:15

Miriam Kellock Alkaline bark extract as an impregnation solution for wood protection 09:25

S Johannes Karthäuser In-Situ Synthesis of Gypsum in Scots Pine Wood 09:35

S Maik Slabohm Investigation of chemical composition and wood-moisture interaction of acetylated beech (*Fagus sylvatica* L.) veneer after heat treatment. 09:45

S Joshua Rabke Investigation of oil curing as an alternative curing procedure for Scots pine modified with sorbitol and citric acid 09:55

Adèle Chabert Preliminary analysis of the curing conditions of SorCA wood treated with catalysts 10:05

S Mariem Zouari Functional bark-based coatings for wood protection and healthy built environment 10:15

S Injeong Kim Durability of wood modified with maleic anhydride and sodium hypophosphite. 10:25

S Alexander Scharf Imidazole-based wood modification 10:35

Dennis Jones Water-leaching resistant fire-retardant and biological resistant wood achieved using ammonium dihydrogen phosphate and urea 10:45

### Coffee break

11:15

### Session 2 Post-consumer wood, Chair Lone Ross and Kristina B. Gedde

S Bahareh Nasiri Inspection of recoverable wood from building demolition 11:30

S Flore Lebreton EcoReFibre: removing fibreboard from waste wood and then using it to make new fibreboard products 11:40

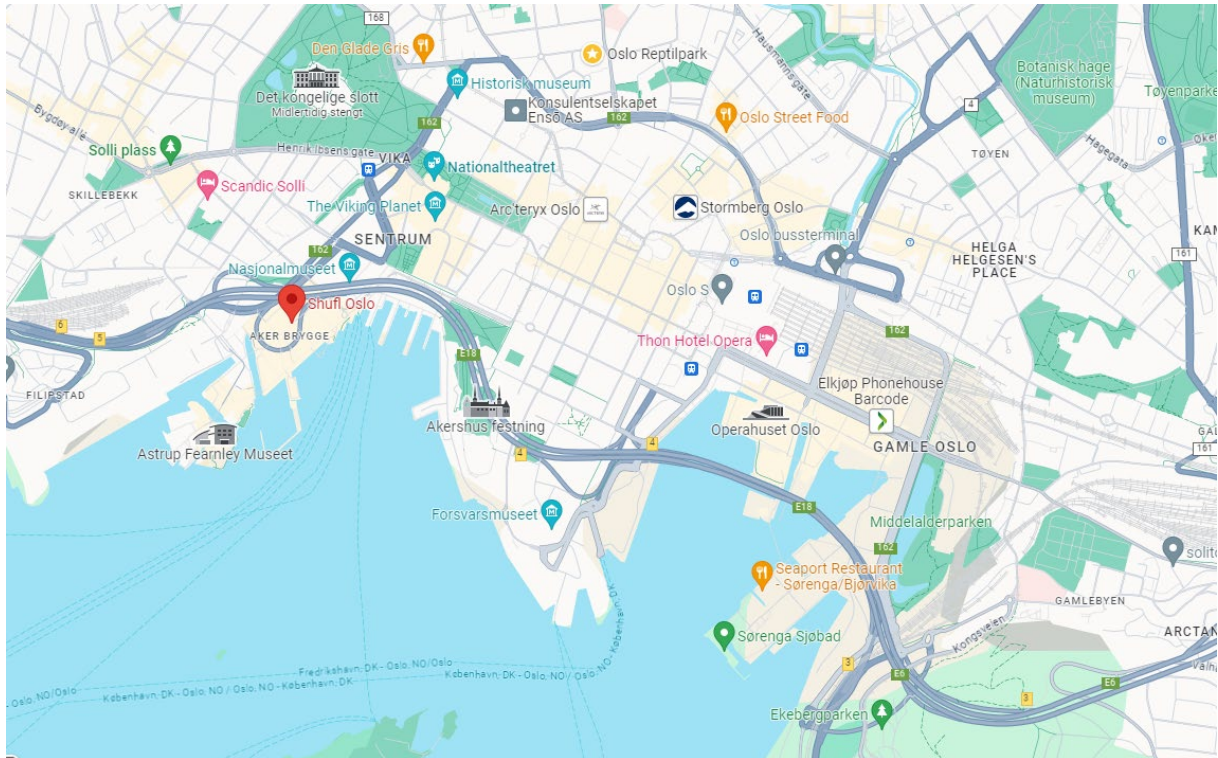
S	Hannes	Stolze	Finger-jointing of recycled wood – potential technology for improved circular use of wood	11:50
	Michael	Risse	More than fuel: an overview of recently finished and ongoing research projects on wood cascading and circular timber buildings	12:00
	Florian	Böhm	Material recovery rate for salvaged rafters from building demolition and selective deconstruction in southern Germany	12:10
S	Kristina	Bringedal Gedde	Classification of wood chips from recycling stations in Norway	12:20
S	Alisa	Resch	Reducing and reusing structural timber: Life cycle assessment on two structural systems	12:30
	Karl	Mahnert	Initial study on sorting of reclaimed timber with industrial state-of-the-art technology	12:40
<b>Lunch</b>				<b>13:00</b>
<b>Session 2 Post-consumer wood cont.</b>				
	Daniel	Ridley-Ellis	Notes on the resonance method for secondary timber	14:00
	Daniel	Ridley-Ellis	One more time - a case study of secondary wood glulam	14:10
	Arnaud	Bessere	Wood recycling: Evolution of the concern in France and cases study in the lab	14:20
<b>Session 3 Cellmat4ever, Chair Bart Mazela and Andreas Treu</b>				
	Waldemar	Perdoch	Cellmat4ever information + Hydrophobization of cellulose through silanized starch	14:40
	Wojciech	Grześkowiak	Panel cellulose composite with increased fire resistance	14:50
S	Karolina	Tomkowiak	Preparation of biopolymer-based coatings and films for use on cellulose substrates	15:00
	Tomasz	Nowak	Hydrophobization of corrugated board through silanized starch	15:10
<b>Poster Session, Chair Erik Larnøy</b>				
	Andreja	Pirc Barčič	Sustainable Resource Use in Northern Europe: An Analysis of FSC Recycled Certificates	15:30
S	Kyle	Aguilar	Mycocomposite's production from recycled wood	
S	Sarah	Troilo	MDF recycling by hydrothermal treatment	
	Hubert	Paluš	Contribution of wood products and residues utilisation to climate change mitigation	
S	Marta	Kaliszewicz	VOC emissions from wood-based composite panels	
S	Shiying	Zhang	Optmising wood densification via ionic liquid treatment	
S	Aline	Uldry	Comparison of the fire performance of timber beams of different ages, and the relevance of cracks due to shrinkage	
S	Andrea	Ponzecchi	Genetic and Chemical Insight into Heartwood formation in Quercus robur: Design of a Study	
	Kärt	Kängsepp	Designing a one-sided glue spreader for a lab-scale plywood production	
S	Hiljahenna	Tomminen	Moisture related stability characteristics of thermally modified wood of European Beech	

S	Emilia	Rosenborg	The effect of different building materials and surrounding nature on human well-being	
	Marc	Borrega	Alkaline bark extracts for wood protection	
S	Andreas	Buschalsky	Light microscopic studies on the variable uptake of impregnation fluids by poplar wood	
	János	Kneifel	Acoustic properties and damping behavior of thermally modified and contact pyrolyzed spruce wood compared to native spruce wood at different relative humidities	
	Janis	Rizikovs	Screening of birch bark suberinic acids for solid wood impregnation	
	Tom	Franke	The impact of various phosphor salts on the ignition and the flame spread of European beech ( <i>Fagus sylvatica</i> L.)	
	Elena	Nedelkoska	The impact of various heat post-treatments on the Brinell hardness and set recovery on densified fir and poplar	
			<b>Coffee break</b>	<b>16:15</b>
	Christian	Brischke	How moisture affects the structural integrity of wood under dynamic loads	<b>16:30</b>
	Christian	Brischke	Time-dependent moisture thresholds for fungal growth and decay of <i>Trametes versicolor</i>	
S	Carlo	Kupfernagel	How drying conditions can affect resin modified wood.	
	Dennis	Jones	Biobased adhesive derived from citric acid and sorbitol for wood-composite manufacture	
	Sascha	Brinker	Utilization of hardwoods to produce insulation panels	
S	Aaron Kilian	Mayer	Basalt grid reinforcement of wood-based panels	
	Pavlo	Bekhta	Properties of veneered lightweight particleboards with expanded polystyrene	
S	Marcus	Cordier	Innovative approaches to resource-efficient plywood production	
	Dennis	Jones	Fire-retardant phosphorus-containing silica gel modified particleboard	
	Anja	Kampe	The influence of chickens droppings and high pressure cleaning on the modulus of elasticity of wood	
	Jure	Žigon	The potential of selected consolidation agents to improve the mechanical and physical properties of beech wood (preliminary results)	
	Jan	Sedliacik	Keratin modifiers of UF resin for wood-based panels with low formaldehyde emission	
S	Inger	Bakke	Emission of volatile organic compounds from Norway Spruce ( <i>Picea abies</i> ) building materials at ambient and increased temperature conditions	
S	Marlene	Cramer	What are the most undervalued timber resources in Europe?	
	Daniel	Cordes	Remote monitoring of moisture entry in buildings using NB-IoT radio technology	
	Peter	Jurkovic	The use of discharge plasma at atmospheric pressure for wood surface modification	
			<b>End of day 1</b>	<b>17:00</b>

## 1900- Dinner in Oslo at Shufl:

<https://maps.app.goo.gl/Fc56a4hw26KZn9pz5>

Velkommen til SHUFL Oslo



Thursday 12 October 2023

Coffee and good morning

08:30

Session 4 Chair Maria Fredriksson

	Edgars	Kuka	Wood plastic composites as a potential source of microplastics	09:00
S	Mattia	Debertolis	Investigation on mechanical connections with birch plywood gusset plates	09:10
S	Yong	Ding	Passive Indoor Climate Regulation: Investigating the Hygrothermal Performance, Energy Saving Potential, and Environmental Impact of Wood Composites	09:20
	Maria	Fredriksson	Controlling amount and location of water at high well-defined moisture states by targeted wood modification	09:30
	Roberto	Tomasi	Experimental Investigations on timber connections with birch plywood and wood dowels	09:40
S	Sebastian	Svensson Meulmann	Temperature distribution within claddings of different coating colors	09:50
Session 5 Ulrich Hundhausen & Edgars Kuka				
S	Fengyang	Wang	A waterborne wood protective coating from fractionated tree bark	10:00
S	Robbe	Heyvaerts	Moisture buffering capacity and water vapor permeability – A contribution to explain the hygrothermal properties of CLT	10:10
S	Tolgay	Akkurt	The effect of using densified low-quality veneers in plywood production as an alternative to birch plywood production	10:20
Coffee break				
Session 5 cont.				
S	Catherine	Kilumets	Effect of lignin on veneer densification and set-recovery	10:45
S	Paul	Gollee	Artificial irradiation (indoors) of wood species growing in Central Europe with different irradiation intensities and at different temperatures.	10:55
	Jaka	Levanič	On the use of alternative wood species and discarded wood in window production (REWinnUSE project)	11:05
	Gry	Alfredsen	Challenges with mycological studies of wooden cultural heritage	11:15
S	Jan-Frederik	Trautwein	The use of bark beetle infested wood in Germany	11:25
	Rosie	Sargent	Densification plus Thermal Modification of Eucalyptus nitens: effect on set-recovery and surface hardness	11:35
S	Kiia	Roininen	Dynamic moisture content of CLT wall elements from manufacture through construction	11:45
Session 6 Chair Marlene Cramer & Carlo Kupfernagel				
	Heikko	Kallakas	Potential causes of the differences in wood bonding strength between soluble and insoluble soy protein fractions	11:55
	Awais	Muhammad	Multivariate analysis of near-infrared hyperspectral imaging for identification of moisture content in wood under static load	12:05
S	Tobias	Bender	On the Mechanic Behaviour of Scots Pine and how it is affected by specific climatic events	12:15

	Matthew	Schwarzkopf	Flexible adhesives for timber-based construction	12:25
S	Marlene	Cramer	Strength grading options for unusual resources	12:35
S	Yue	Wang	Preliminary experimental investigations on frame corner joints built of glulam beams, birch plywood via mechanical connectors	12:45
			<b>Lunch</b>	<b>13:00</b>
			<b>Session 7 Dennis Jones and Alexander Scharf</b>	
	Callum	Hill	Determining the Organisational Carbon Footprint of a Sawmilling Enterprise – A Case Study of Vastern Timber	14:00
	Emil	Thybring	Highly filled and recycled wood-fibre composites	14:10
	Jaka	Pecnik	Enhancement of protein-based adhesives for advanced timber applications	14:20
	Kristiina	Lillqvist	Opportunities of wood science online courses	14:30
			<b>Student awards</b>	<b>15:00</b>
			<b>Closing of WSE 2023</b>	<b>15:15</b>
			<b>Laboratory visits NIBIO</b>	<b>15:45</b>