TECHNICAL PROGRAM

As of 5/15/18 - Subject to change – please check the conference app for updates.

Monday 11 June 2018	
9:00am-10:30am	**Forest Products Laboratory Tour #1**
9:00am 2:00pm	**Practical Safety Strategies for Bio/Nano Technology Commercialization Workshop** *Room: Hall of Ideas F*
12:00pm-1:30pm	**Student Committee Lunch** *Room: Hall of Ideas G*
1:00pm – 4:00pm	**Cellulose Nanomaterials Characterization Workshop – Primary Characterization** *Room: Hall of Ideas F*
2:00pm-3:30pm	**Forest Products Laboratory Tour #2**
4:00pm-5:30pm	**Session 1: OPENING SESSION AND KEYNOTE** *Driving the Automotive Industry Using Sustainable Materials* ***Alper Kiziltas**, Ford Motor Company* *Room: Ballroom ABCD*
5:30pm-7:00pm	**Welcome Reception** *Room: Grand Terrace*
6:30pm-7:30pm	**Young Professionals Mixer** *Room: Capitol Club @ Hilton Monona Terrace*

Tuesday 12 June 2018			
7:30am – 8:30am	Research Committee Meeting (Invitation Only) *Room: Doty @ Hilton Monona Terrace*		
8:30am – 10:00am	***Session 2: Particle Size Measurement*** *Session Chair:* ***Paul Russo****, Georgia Tech* *Room: Hall of Ideas EH*	***Session 3:*** **Nanolignin and Ligno-Nanocellulose: Production and Application Prospects** *Session Chair:* ***Nathalie Lavoine****, North Carolina State University* *Room: Hall of Ideas FI*	***Session 4: Responsive & Functional Materials I*** *Session Chair:* ***Emily Cranston,*** *McMaster University* *Room: Hall of Ideas GJ*
8:32	Proof-of-Concept of Gel Fractionation of Bleached Eucalyptus Kraft MFC ***Braz Demuner****, Fibria Cellulose*	Bio-Nanomaterials Development: Linking R&D Activities and Industrialization of Lignin Micro - and Nanoparticles ***Orlando Rojas****, Aalto University*	Cellulose Nanomaterial in High Performance Water-Based Drilling Fluid ***Qinglin Wu****, Louisiana State University*
8:54	Determining Nanocellulose Particle Size - A Comparative Study ***Valdeir Arantes****, Lorena School of Engineering, University of São Paulo*	Exploring the Interactions That Drive the Assembly of Cellulose Nanofibers Produced from Australian Spinifex Arid Grass ***Katarzyna Kepa****, University of Queensland, Australian Institute for Bioengineering and Nanotechnology*	Encapsulation of Phase Change Materials in Cellulose Nanocrystals-Reinforced Poly(urea-urethane) Microcapsules and Their Incorporation in Asphalt for Snow and Ice Melting ***Carlos Martinez****, Purdue University*
9:16	Characterization of Concentrated Aqueous CNC Suspensions By Static Multiple Light Scattering: Equivalent Particle Size and Suspension Stability ***Zygmunt Jakubek****, National Research Council of Canada*	Microfibrillated Cellulose Production from Various Lignocellulosic Fines ***Warren Batchelor****, Monash University*	Sensing Water Diffusion and Its Effects in CNC-Epoxy Composites Using Aquafluor ***Jeremiah Woodcock,*** *National Institute of Standards and Technology*
9:38	Investigation into Low Level Quantification Techniques for Cellulose Nanocrystals (CNC) in Aqueous Media ***Brian O'Connor****, FPInnovations*	Anisotropic Cellulose Nanofibers/Lignin Foams for Thermal Insulation ***Nathalie Lavoine****, North Carolina State University*	Unusual Approaches to Cellulose Nanocrystal Modification: Allomorph Transition and End-to-End Connections ***Eero Kontturi****, Aalto University*
10:00am-10:30am	**Break**		

10:30am-12:00pm	***Session 5: 3D Printing & Coatings*** *Session Chair:* ***Stephanie Beck****, FPInnovations* *Room: Hall of Ideas EH*	***Session 6: Industrial Applications*** *Session Chair:* ***Gordon Giles****,* *Alberta Innovates* *Room: Hall of Ideas FI*	***Session 7: Foams & Gels I*** *Session Chair:* ***Marc Dube****,* *University of Ottawa* *Room: Hall of Ideas GJ*
10:32	Interaction in Cellulosic Fiber-Fiber Joints at Humid and Wet Conditions by AFM and Confocal Raman Microscopy, ***Agne Swerin****, RISE Research Institutes of Sweden*	Towards Enhanced Durability and Sustainable Construction Through Tuned Cellulose Nanofibres ***Vivek Bindiganavile****,* *University of Alberta*	Towards Nano-Enabled Bio-Based Solutions by Foam Technologies ***Katariina Torvinen****, VTT Technical Research Centre of Finland Ltd.*
10:54	Towards 3D Printing of ABS-Cellulose Nanocrystal Composite Materials ***Matthew Hartings****, American University*	Cellulose Filament Reinforced Cement Board ***Xiaolin Cai****, FPInnovations*	Ultralight Weight Kapok Fiber Derived Aerogels for Oil Spill Cleaning ***Indu Chauhan****, Indian Institute of Technology Delhi*
11:16	Improved Wood Coatings via CNC Addition ***Jeffrey Youngblood****, Purdue University*	The Potential of TEMPO-Oxidized Cellulose Nanofibrils as a Rheology Modifier in Food Systems ***Ragnhild Aaen****, NTNU*	Fiber-Level Simulation of Nanofibrillated Cellulose Suspensions ***Jing-Yao Chen,*** *University of Wisconsin-Madison*
11:38	Filaments for 3D Printing Based on Polymeric Composite of Poly-Hydroxybutyrate / Bacterial Cellulose for Applications in Tissue Engineering ***Igor Tadeu Silva Batista,*** *UNIARA*	Hygiene Product Application Utilizing Cellulose Based Absorbent Material Made by Tempo Oxidation ***Jani Lehmonen****, VTT Technical Research Centre of Finland Ltd.*	Design Principles to Create Porous Light-Weight Materials, ***Anurodh Tripathi****, North Carolina State University*
12:00pm - 2:00pm	**Session 8: Lunch with Presentation Sponsored by Celluforce Inc.** *FogKicker from Nanocellulose A Journey from Lab to Market* Speaker: Yinyong Li Treaty, LLC. *Room: Ballroom CD*		

2:00pm-3:30pm	***Session 9: Industrial Production I*** *Session Chair:* ***Sean Ireland****, FiberLean® Technologies Ltd.* *Room: Hall of Ideas EF*	***Session 10: Transport Properties of Nanocellulose-Based Films and Membranes*** *Session Chair:* ***Warren Batchelor****, Monash University/BioPRIA* *Room: Hall of Ideas FI*	***Session 11: Tissue Engineering and Implants*** *Session Chair:* ***Avinav G. Nandgaonkar****, Suominen Corporation* *Room: Hall of Ideas GJ*
2:02	Use of Membrane to Recover Sulfuric Acid Used in CNC Production ***Emily Sharata****, Membrane Specialists*	Nanocellulose Functionalization Using Silsesquioxane Particles Sol Gel Formation in Aqueous Conditions and Their Application for Superhydrophobic Coated Paper ***Julien BRAS****, Univ. Grenoble Alpes, Grenoble INP, LGP2*	3D Printing of Nanocellulose Scaffolds with Tailored Mechanical Strength Towards Tissue Engineering Applications ***Xiaoju Wang****, Åbo Akademi University*
2:24	CNC Production at Dramatically Lower Acid Ratios ***Joel Kelly,*** *NORAM / BC Research*	Recyclability of Spray Coated Smooth Nanocellulose Films as a Potential Sustainable Alternative to Synthetic Packaging **Warren Batchelor**, *Monash University/BioPRIA*	Mechanically Adaptive Bio-Nanocomposites for Implantable Sensing ***Johan Foster****, Virginia Tech*
2:46	Cellulose Nano Crystals Production and Development of Innovative Products ***Shaul Lapidot****, Melodea, Ltd.*	Nanocellulose-Based Membrane with Antifouling Properties Prepared by Grafting of Zwitterionic Polymers ***Luis Alexandro Valencia Lopez****, Stockholm University*	Nanocellulose Reinforced Poly(propylene fumarate) Composites ***John Simonsen****, Oregon State University*
3:08	Cost Effective Production of CNC at InnoTech Alberta, ***Behzad Ahvazi****, InnoTech Alberta, Inc.*	Study of Structure Dependence of Barrier Properties in Nanofibrilated Cellulose Films for Intelligent Food Packaging Applications ***Vadim Kislitsin****, University of Alberta*	New Production Strategies for Tissue Scaffolds Containing Cellulose Nanocrystals and Their Fate in Vivo ***Emily Cranston****, McMaster University*
3:30pm-4:00pm	**Break**		

4:00pm-5:30pm	***Session 12 End User Panel*** *Moderator:* ***Hamdy Khalil****, Woodbridge Foam Corporation* *Room: Hall of Ideas EHFI*	***Session 13: Tissue Engineering, Implants and Drug Delivery*** *Session Chair:* ***Johan Foster****, Virginia Tech* *Room: Hall of Ideas GJ*	
4:02	***Dr. Alper Kiziltas****, Ford Motor Company* ***Dr. Toivo Kodas****, Cabot Corporation* ***Dr. Kent Nielsen****, 3M* ***Dr. Raj Wallajpet,*** *Kimberly Clark Corporation*	Shape-Memory 3D Printable Hydrogels with Anti-Microbial Properties ***Gilberto Siqueira****, Applied Wood Materials Lab. - Empa*	
4:22		Cellulose-Based Lateral Flow Devices for Low-Cost Point-of-Care Blood Coagulation Monitoring ***Hua Li****, University of Cincinnati*	
4:46		Evaluating Mucoadhesion Properties of Nanocellulose in Gastrointestinal Tract ***Yu-Ju Lin****, University of Georgia*	
5:02		Vitamin B complex encapsulated on baterial nanocellulose ***Diego Gomez-Maldonado,*** *Auburn University*	
5:30pm-7:30pm	**Session 14: Poster Session and Student Poster Competition** *Room: Ballroom A/Grand Terrace*		
Wednesday 13 June 2018			
8:30am-10:00am	***Session 15: Automotive & Other Manufacturing Processing*** *Session Chair:* ***Keith Gourlay****, Performance BioFilaments* *Room: Hall of Ideas EH*	***Session 16: Processing and Applications of Nanocellulose-Based Coatings*** *Session Chair:* ***Julien Bras****, Grenoble INP-LGP2* *Room: Hall of Ideas FI*	***Session 17: Responsive & Functional Materials II*** *Session Chair:* ***Elina Niinivara****, McMaster University* *Room: Hall of Idea GJ*
8:32	Role of Nanocellulose in Glass Fiber-Epoxy Interphase ***Ejaz S. Haque,*** *Georgia Institute of Technology*	Chitin and Cellulose Spray Coated Nanomaterials for Sustainable Barrier Applications ***Chinmay Satam****, Georgia Institute of Technology*	Mechanical Behavior of Polymer Conjugated Cellulose Nanocrystal Films ***Sinan Keten****, Northwestern University*
8:54	High Performance Nanocellulose – Polyamides Composites ***Fabiola Vilaseca****, University of Girona*	Roll-to-roll Fabrication of Transparent Cellulose Nanocrystal Coatings on a Flexible Substrate with Controlled Anisotropy ***Reaz Chowdhury****, Purdue University*	Development of Cellulose Fibre Yarns for Hormone Capture From Aqueous Matrices ***Hannes Orelma****, VTT Technical Research Centre of Finland*

9:16	Toward the Applications of CNFs Materials for Automotive Parts ***Hiroyuki Yano**, Kyoto University*	Coatability of CNC Suspensions in a High-throughput Continuous Process ***Rajesh Koppolu**, Åbo Akademi University*	Singly Dispersed Gold Nanoshell-Bearing Cellulose Nanocrystals with Tailorable Plasmon Resonance ***Nikolay Semenikhin,** Georgia Institute of Technology*
9:38	Towards CNC-Enabled Lightweighting of Automotive Components ***Craig Clemons**, USDA Forest Products Laboratory*	Comparison of Coating Methods for the Application of Cellulose Nanofibrils (CNF) as Coating on Paperboard ***Doug Bousfield**, University of Maine*	Novel Tunable Amphiphilic to Hydrophobic Nanocelluloses Via a Multi-functional Reagent ***You-Lo Hsieh**, University of California, Davis*
10:00am-10:30am	**Break**		
10:30am-12:00pm	***Session 18: Melt & Dry Processing I*** *Session Chair: **Behzad Ahvazi**, Innotech Alberta* *Room: Hall of Ideas EH*	***Session 19: Self-and Directed Assembly of Nanocellulose*** *Session Chair: **Agne Swerin**, RISE Research Institutes of Sweden* *Room: Hall of Ideas FI*	***Session 20: Foams & Gels II*** *Session Chair: **Eero Konturri**, Aalto University* *Room: Hall of Ideas GJ*
10:32	Cellulose Nanocrystal — Thermoplastic Composites via Melt-Blending ***Douglas Fox**, American University*	Confinement Driven Organization of CNF and CNC ***Gustav Nyström**, Empa*	Fabrication and Functionalization of Advanced Nanomaterials with 3D-Network Structure from Cellulose and Whole Biomass Using LiBr Molten Salt Hydrate System ***Yang Liao**, University of Wisconsin-Madison*
10:54	Nanocellulose/Polylactic Acid Composites Delivered by Polyethylen Glycol ***Caitlyn Clarkson,** Purdue University*	Optimizing the Structure and Mechanical Properties of Chiral-Nematic Cellulose Scaffolds for Tough Bioinspired Polymer Composites ***Bharath Natarajan**, National Institute of Standards and Technology*	Ultralight, Highly Thermal Insulating and Fire Resistant Aerogel by Encapsulating Cellulose Nanofiber with Two-dimensional MoS_2 ***Hongli Zhu**, Northeastern University*
11:16	Embedding Cellulose Nanocrystals (CNCs) into Polymer Particles for Enhanced Processing ***Priya Venkatraman**, Virginia Tech*	Nanocellulose Biofabrication: A Versatile Toolbox for Self-Assembled Functional 3D Structures ***Orlando Rojas,** Aalto University*	Cellulose Nanocomposites: Vacuum Infusion of Cellulose Nanofiber Preforms with Bio-Based Epoxy ***Kristiina Oksman**, University of Oulu*
11:38	Improving Compatibility and Compounding of Cellulose Nanocrystals in Polymer Composites	Engineering the Self-assembly of Cellulose Nanocrystals on Complex Topography to Obtain Advanced Hybrid Materials ***Blaise Tardy**, Aalto University*	Cellulose Nanofibrils Aerogel: Development and Application in Water Treatment ***Feng Jiang**, The University of British Columbia*

	***Ronald Sabo**, USDA Forest Service, Forest Products Laboratory*		
12:00pm - 2:00pm	**Session 21 - Lunch with Presentation Sponsored by NanoCellulose Forum** *Present Situation and Future Prospects of Nanocellulose R&D in Japan* Speaker: Akira Isogai University of Tokyo *Room: Ballroom CD*		
2:00pm-3:30pm	***Session 22: Photonics and Optical Applications*** *Session Chair: **Joel Kelly**, BC Research Inc.* *Room: Hall of Ideas EH*	***Session 23: Nanocellulose Based Composites*** *Session Chair: **Xiaolin Cai**, FPInnovations* *Room: Hall of Ideas FI*	***Session 24: Nanocellulose For Enhancing Paper*** *Session Chair: **Nathalie Lavoine**, North Carolina State University* *Room: Hall of Ideas GJ*
2:02	Circularly Polarized Light Detection on Transistors Using Cellulose Photonic Dielectrics ***Luis Pereira**, CENIMAT/I3N and CEMOP/UNINOVA*	Controlling Cellulose Nanocrystal Location Within Latex Systems by Tuning Interfacial Compatibility ***Elina Niinivaara**, McMaster University*	The Benefits of Using MFC (Microfibillated Cellulose) in Coated Papers ***David Cowles**, GL&V USA Inc.*
2:24	"Patchy" Modification of CNCs with a Thermoresponsive Polymer for a "Switchable" Liquid Crystal ***Bailey Risteen**, Georgia Institute of Technology*	Dry-Spun neat Cellulose Nanofibril Filaments: Effect of Process Variables and Additives on Filament Properties ***Shokoofeh Ghasemi**, University of Maine*	Enhancing Coating Holdout with Cellulosic MicroFibrils ***Donna Johnson**, University of Maine*
2:46	UV-blocking Hybrid Nanocellulose Films Containing Ceria and Silica Nanoparticles ***Tiffany Abitbol**, RISE Research Institutes of Sweden*	Understanding the Impact of Cellulose- and Chitin-Based Nanomaterials in Various Polymer Matrix Constructs ***Cameron Irvin**, Georgia Institute of Technology*	Life Cycle Assessment of Packaging Containing Microfibrillated Cellulose From Spruce ***Ellen Soldal**, Ostfold Research*
3:08	Electrophoretic Deposition of CNC-Containing Photonic and Semi-Conductive Films ***Wadood Hamad**, FPInnovations*	Surface Modifications of Nanocellulose for Assembly of a Stable Organogel Support for Drug Crystallization ***Manali Banerjee**, Georgia Institute of Technology*	Industry Adopted Production of Nanocellulosic Material Optimized for Increased Strength of Packaging and Printing Paper ***Anna Svedberg**, MoRe Research*
3:30pm-4:00pm	**Break**		

4:00pm-5:30pm	***Session 25: Flexible Electronics*** *Session Chair:* ***Wadood Hamad****, FPInnovations* *Room: Hall of Ideas EH*	***Session 26: Characterization Methods*** *Session Chair:* ***Linda Johnston****, National Research Council of Canada* *Room: Hall of Ideas FI*	***Session 27: Processing and Properties of Nanocellulose-based Films for Packaging Application*** *Session Chair:* ***Maria Soledad Peresin****, Auburn University* *Room: Hall of Ideas GJ*
4:02	Cellulose Nanocrystals (CNC) Derived Mo_rC@Sulfur-doped Carbon Aerogels for Hydrogen Evolution ***Yun Lu****, Research Institute of Wood Industry Chinese Academy of Forestry*	Investigating the Influence of Fibril Size on Microfibrillated Cellulose (MFC) Suspension Morphology Under Flow: A Rheological Approach ***Michel Schenker****, FiberLean Technologies Ltd.*	All-Cellulosic Packaging From Cellulose Nanofibrils and Fatty Acid Esters ***Heli Kangas****, VTT Technical Research Centre of Finland Ltd.*
4:46	Launderable Conductive Fabrics with Nanocellulose Coating ***Yunsang Kim****, Mississippi State University*	Comparison of Supramolecular Structures of CNCs of Different Origins ***Umesh Agarwal****, USDA Forest Products Laboratory*	Hybrid Nanopaper of Cellulose Nanofibrils and PET Microfibers with High Tear Resistance ***Emil Gustafsson****, Université Grenoble Alpes, LGP2*
4:46	AlGaN/GaN HEMT Based RF Power Amplifier on CNF Substrate for Environment-Friendly Flexible Electronics ***Huilong Zhang****, University of Wisconsin-Madison*	Chemically Labeling of Cellulose For Quantitative Tracking ***Jeremiah Woodcock****, NIST*	Structure-Property Relationships In Physical, Mechanical, and Barrier Properties of Hybrid Cellulose Nanofibril/Bentonite Films for Packaging Applications ***Mehdi Tajvidi****, University of Maine*
5:02	SEE CONFERENCE APP	Rheological Characterization and Testing Standards for Nanocellulose Materials ***Jianshan Liao****, Renewable Bioproducts Institute, Georgia Institute of Technology*	SEE CONFERENCE APP
6:30pm-10:00pm	**Conference Dinner** **6:30-10:00** **Orpheum Theater** **Bus Transportation picks from the Monona Terrace Community and Convention Center at 6:00pm.**		

Thursday 14 June 2018			
8:30am – 10:00am	***Session 28: Safety in Applications*** *Session Chair:* ***Heli Kangas****, VTT Technical Research Centre of Finland* *Room: Hall of Ideas EH*	***Session 29: Applications of Nanocellulose/Inorganic Composites*** *Session Chair:* ***John Simonsen****, Oregon State University* *Hall of Ideas FI*	***Session 30: Emulsions & Colloids*** *Session Chair:* ***Carl Houtman****, USDA Forest Products Laboratory* *Hall of Ideas GJ*
8:32	What Do We Know About the Safety of Cellulose Nanomaterials: Environmental Health and Safety Roadmap, Knowledgebase and Uncertainties ***Jo Anne Shatkin****, Vireo Advisors, LLC*	Aligned and Stable Metallic MoS2 on Plasma Treated Mass Transfer Channels for Hydrogen Evolution Reaction ***Hongli Zhu****, Northeastern University*	Medium and High Internal Phase Oil-in-Water Pickering Emulsions Stabilized by Cellulose Filaments ***Chuanwei Miao****, FPInnovations*
8:54	Toxicological Evaluation of Nanocellulose in Experimental Models of Occupational Respiratory Exposure ***Jenny Roberts****, NIOSH*	Modification of Cellulose Nanocrystals (CNC) for Fire Retardant Applications ***TriDung(TD) Ngo****, InnoTech Alberta*	Surprising Adhesive Property Modifications Using Cellulose Nanocrystals ***Marc Dube****, University of Ottawa*
9:16	Physicochemical Characterization of Novel Cellulose Materials: Challenges and Opportunities for Environmental Health Science ***Christie Sayes****, Baylor University*	Processing and Performance of Clay-Nanocellulose Hybrids ***Lars Berglund****, KTH Royal Inst. of Technology*	Tuned Multifunctional Cellulose Nanocrystal Acid-Base Cooperative Organocatalysts For Upgrading Biomass-Derived Platform Molecules ***Nathan Ellebracht****, Georgia Institute of Technology*
9:38	An Update on the Science of Demonstrating the Safety of Cellulose Nanomaterials for Food Related Uses ***James Ede****, Vireo Advisors, LLC*	Retardation Effects of Cellulose Nanocrystals (CNCs) in Portland Cement Pastes ***Francisco Montes****, Purdue University*	SEE CONFERENCE APP
10:00am-10:30am	**Break**		
10:30am-12:00pm	***Session 31: Industrial Production II*** *Session Chair:* ***Kim Nelson****, American Process Inc.* *Room: Hall of Ideas EH*	***Session 32: Solvent Based Processing*** *Session Chair:* ***Douglas Fox****, American University* *Room: Hall of Ideas FI*	***Session 33: Foams & Gels III*** *Session Chair:* ***Chuanwei Miao****, FPInnovations* *Room: Hall of Ideas GJ*
10:32	Mineral/Microfibrillated Cellulose Composite Materials: High Performance Products, High Solids Product Forms and Applications ***David Skuse****, FiberLean® Technologies Limited*	Counterion Design Of TEMPO-Nanocellulose Used as Filler to Improve Properties of Hydrogenated Acrylonitrile-Butadiene Matrix ***Akira Isogai****, The University of Tokyo*	Novel Method to Produce Cellulosic Lightweight Materials ***Camila Alves Rezende****, University of Campinas*

10:54	Scaling up the CNC Production: Optimizing Cellulose Degradation with Gaseous HCl ***Timo Pääkkönen**, Aalto University*	Effect of Cellulose Nanofibril Addition on Gel Spinning of Continuous Polyacrylonitrile Fiber, and Their Corresponding Properties ***Jeffrey Luo**, Georgia Institute of Technology*	Nanocellulose Aerogels and Air Filters ***Junji Nemoto**, Hokuetsu Kishu Paper*
11:16	Phosphorylated Cellulose Nanofibers: Effect of Concentration and Phosphorous Salt ***Fleur Rol**, Univ. Grenoble Alpes, CNRS, Grenoble INP*	Acrylic-CNC Composites Formed by CNC Functionalization with Acryloyl Isocyanate and In Situ Copolymerization ***Carson Meredith**, Georgia Institute of Technology*	Tunable Cellulose Nanocrystal Structured Thin Film Hydrogels ***Kevin DeFrance**, McMaster University*
11:38	Using Solid Organic Acids for Sustainable, Economic, and Tailored Production of Cellulose Nanomaterials ***J. Y. Zhu**, USDA Forest Products Lab*	Nanocellulose in Formable, Strong and Lightweight Structures For Interior Construction ***Hannes Orelma**, VTT Technical Research Centre of Finland Ltd.*	Tailoring the Interactions Between Aminosilane and Cellulose Nanofibrils for the Processing and Drying of Hybrid Siliceous Foams ***Korneliya Gordeyeva**, Stockholm University*
12:00pm-2:00pm	**Session 34: Keynote Presentation and Lunch** *Beyond Nano: Why Tiny Bits of Trees Make a Big Difference for Forests* Keynote Speaker: Michael Goergen U.S. Endowment for Forestry & Communities, Inc. *Room: Ballroom CD*		

2:00pm-3:30pm	***Session 35: LCA Manufacturing, Life Cycle & Product Safety*** *Session Chair: **Brian O'Connor**, FPInnovations* *Room: Hall of Ideas EH*	***Session 36: Adhesive and Bonding Properties of Nanocellulose*** *Session Chair: **Greg Schueneman**, USDA Forest Products Lab* *Room: Hall of Ideas FG*	***Session 37: Films and Suspension Properties*** *Session Chair: **Tiffany Abitbol**, RISE Research Institutes of Sweden* *Room: Hall of Ideas GJ*	***Session 38: Student Session: Career Roundtable*** *Moderator: **Nathan Ellbracht**, Georgia Tech* *Room: MNQR*
2:02	Microfibrillated Cellulose in Products: Calculation of Environmental Costs and Benefits using Life Cycle Assessment ***Ingunn Saur Modahl**, Ostfold Research*	Development of Resin Free Filters Using Cellulose Nanofibres ***Aysu Onur**, Monash University*	Characteristics of TEMPO-Oxidized Cellulose Nanofiber/Water Dispersions and Their Applications ***Yohsuke Goi**, DKS Co. Ltd., the University of Tokyo*	***Feng Jiang**, The University of British Columbia* ***Kim Nelson**, American Process Inc.* ***Shaul Lapidot**, Melodea, Ltd.* ***Jo Anne Shatkin**, Vireo Advisors, LLC*
2:24	Proof-of-Concept of Gel Franctionation of Bleached Eucalyptus Kraft MFC **Fernando Aquinoga Mello**, *Fibria Celulose S.A.*	Binderless Cellulose Filament-Based Product Made by Compression Molding ***Natalie Pagé**, FPInnovations*	Fractionation of Cellulose Nanocrystal Reference Material by Asymmetric Flow Field Flow Fractionation (A4F) ***Maohui Chen**, National Research Council Canada*	

2:46	Cellulose Nanomaterials in Products - Risk Assessment According to European Commission's Guideline ***Heli Kangas,*** *VTT Technical Research Centre of Finland Ltd.*	Cellulose Nanofibrils-Bonded Particleboards: Production, Property Evaluation and Dewatering Process Assessment ***Ezatollah Amini****, University of Maine*	Modified Cellulose Nanocrystal Production Routes for Increased Performance of Aqueous Suspensions at High Temperatures ***Oriana Vanderfleet****, McMaster University*	***John Simonsen****, Oregon State University* ***Y. Y. Zhu****, USDA Forest Products Lab*
3:08	Overview of NIOSH Field Studies for the Assessment and Control of Nanocellulose Materials ***Kevin Dunn****, NIOSH*	Enhancement of the Physical and Mechanical Properties of Mycelium-Bonded Composite Panels by Cellulose Nanofibrils ***Wenjing Sun****, University of Maine*	Spray Drying of Cellulose Nanocrystals: Dried Granular Particle Morphology and Redispersion in Aqueous Solutions ***Yussef Esparza****, University of Alberta*	
3:30pm-4:00pm	**Break**			

4:00pm-5:30pm	***Session 39: Energy Storage Applications*** *Session Chair:* ***J. Y. Zhu****, USDA Forest Products Lab* *Room: Hall of Ideas EH*	***Session 40: Functional Materials*** *Session Chair:* ***Robert Moon****, USDA Forest Products Lab* *Room: Hall of Ideas FI*	***Session 41: Characterization and Quantification of Cellulose Nanomaterials*** *Session Chair:* ***Jo Anne Shatkin****, Vireo Advisors, LLC* *Room: Hall of Ideas GJ*
4:02	Structure and Eectrochemical Performance of Cellulose Nanocrystal Derived Carbon Anodes for Lithium and Sodium Batteries ***Kyungho Kim****, Purdue University*	Application of Cellulose Nanocrystal (CNCs) Coatings on Polymers - A Pathway for Enhancement of Barrier Properties of Polymers ***MD Nuruddin****, Purdue University*	Meeting Global Regulatory Requirements: Overview of Nanomaterial Safety Testing ***Kimberly Ong****, Vireo Advisors*
4:22	Heavy Metal-Free Tannin from Bark for Sustainable Energy Storage ***Hongli Zhu****, Northeastern University*	Development of a Chitosane-Nanocellulose Based Biosorbent for an Efficient Adsorption of Copper Ions in Aqueous Solutions ***Ilse Cardenas****, Université du Québec à Trois-Rivières*	Metrology Challenges for Characterization of Cellulose Nanocrystals ***Linda Johnston****, National Research Council Canada*
4:46	Nanocrystalline Cellulose Based Electroactive Polymer ***Maobing Tu****, University of Cincinnati,*	Preparation of Polypropylene Nanocomposites with Amphiphilic Janus ACC-Nanocellulose Created by Aqueous Counter Collision ***Tetsuo Kondo****, Kyushu University*	The Effect of Pretreatment on Key Properties of Cellulose Nanofibers from Hybrid Aspen ***Simon Jonasson****, Luleå University of Technology*

5:02	Robust Paper-Based Electrochromic Devices Enabled by Nanocellulose-Coated Paper and Chitin Nanofiber Barrier Layers ***Augustus Lang,*** *Georgia Institute of Technology*	SEE CONFERENCE APP	Application of Cellulose Nanocrystal (CNCs) Coatings on Polymers - A Pathway for Enhancement of Barrier Properties of Polymers ***M. Jonathan Leboucher,*** *Normandie Univ/CNRS*

Friday **15 June 2018**	
9:00am – 12:00pm	Producers Committee Meeting (Invitation Only) *Room: Doty @ Hilton Monona Terrace*
1:00pm – 3:00pm	2019 Nano Conference Planning Meeting (Invitation Only) *Room: La Follette @ Hilton Monona Terrace*