

Main Session: Opening Ceremony + Keynote Speech

Location: Room 108, Qingqing Wenli Building

Wednesday Morning, 31st May 2023

Time (UTC/GMT +8.00)	Program	Speaker	Title	Affiliate	Moderator
8:30-9:00	Opening Ceremony	Gang Jin	Opening ceremony speech	South China University of Technology (Vice President), China	Xuehui Li
		Zhenlei Cao	Opening ceremony speech	China Technical Association of Paper Industry (Chairman), China	
		Huanbin Liu	Opening ceremony speech	South China University of Technology, China; Academician of the Russian Academy of Engineering	
		Group Photo			
9:00-9:30	Keynote speech	Lars Wågberg	Fundamental aspects on the action of chemical additives on the mechanical properties of papers from treated fibres	KTH Royal Institute of Technology, Sweden	Alain Dufresne
9:30-10:00	Keynote speech	Douglas W. Coffin (Remote)	Residual curl in paper resulting from wrapping around a cylinder	Miami University in Oxford, Ohio, USA	
10:00-10:30	Keynote speech	Wenhao Shen	Three-dimensional structure and permeation simulation of coated paper and filled paper	South China University of Technology, China	
10:30-10:50		Tea Break (20 min)			
10:50-11:20	Keynote speech	Wei Ge	Multiscale simulation of multiphase porous media	Institute of Process Engineering, Chinses Academy of Science, China	Lars Wågberg
11:20-11:50	Keynote speech	Alain Dufresne	Processing of cellulose reinforced polymer nanocomposites	Pagora-Grenoble-INP, France	
11:50-14:00		Lunch (Xihu Garden Hotel)			

Session 1: Paper physics, Simulation and Control

Location: Room 3A02, Qingqing Wenli Building

Wednesday Afternoon, 31st May 2023

Time (UTC/GMT +8.00)	Program	Speaker	Title	Affiliate	Moderator
14:00-14:20	Invited speech	Hongbin Liu	Tissue softness and the approaches for its improvement	Tianjin University of Science and Technology, China	Weibing Wu
14:20-14:40	Invited speech	Zhibin He (Remote)	Revisiting the Impact of Fiber Properties on Paper Qualities	University of New Brunswick, Canada	
14:40-15:00	Invited speech	Huiming Fan	Research progress of paper document conservation in Lingnan Document Conservation Research Center	South China University of Technology, China	
15:00-15:15	Oral speech	Elias Retulainen (Remote)	A papermaking approach to all-cellulose fiber-based composite manufacture	Fiber and Fibril, Finland	
15:15-15:30	Oral speech	Atsushi Tanaka (Remote)	Improved application of creping adhesive	VTT Technical Research Centre of Finland Ltd, Finland	
15:30-15:45	Oral speech	John M. Considine	A New Approach to Paperboard Heterogeneity Analysis	USDA, Forest Service, Forest Products Laboratory, Madison WI USA	
15:45-16:05 Tea Break (20 min)					
16:05-16:25	Invited speech	YanJun Tang	Cellulose nanofiber preparation via high-pressure homogenization and its film characteristics	Zhejiang Sci-Tech University, China	Hongbin Liu
16:25-16:45	Invited speech	Mark Martinez (Remote)	3D μ CT observations of aspen wood under compression	University of British Columbia, Canada	
16:45-17:00	Oral speech	Nadir Kopic-Osmanovic	An elasto-plastic material model for paper and paperboard at finite deformations	University of Wuppertal, Germany	
17:00-17:15	Oral speech	Greta Kloppenburg (Remote)	Analyzing the Fiber Distribution in Paper Using CT Scans	University of Wuppertal, Germany	
17:15-17:30	Oral speech	Jarmo Kouko (Remote)	Extensible paper webs for thermoforming applications	Technical Research Centre of Finland Ltd., Finland	
17:30-19:00 Banquet (Xihu Garden Hotel)					

Session 2: Novel Materials and Applications

Location: Room 3A01, Qingqing Wenli Building

Wednesday Afternoon, 31st May 2023

Time (UTC/GMT +8.00)	Program	Speaker	Title	Affiliate	Moderator
14:00-14:20	Invited speech	Junli Ren	Alkaline Nanoparticles for Anti-aging Performance of Acidified Paper	South China University of Technology, China	Yonghao Ni
14:20-14:40	Invited speech	Haiqiang Shi	Fabrication of cationized plant fiber-based test paper for the enzyme activity measurement	Dalian Polytechnic University, China	
14:40-15:00	Invited speech	Jiaqi Guo	Structure-color material from cellulose: mechanism, property regulation and application	Nanjing Forestry University, China	
15:00-15:15	Oral speech	Lei Wang	Structural and Interfacial Design of Fibers and Papers in Energy-related Applications	South China University of Technology, China	
15:15-15:30	Oral speech	Sha Wang	The construction of cellulose nanofiber-based nanofluidic membranes and their application in salinity gradient power generation	Nanjing Forestry University, China	
15:30-15:45	Oral speech	Xiaoqian Zhang	Flexible, waterproof, thermal-processable fully bio-based starch plastics	South China University of Technology, China	
15:45-16:05 Tea Break (20 min)					
16:05-16:25	Invited speech	Yonghao Ni	Asymmetrically patterned nanocellulose- based Film for humidity sensing and moist-electric Generation	University of New Brunswick, Canada	Junli Ren
16:25-16:45	Invited speech	Guangxue Chen	Efficient preparation and application of paper-based sensors based on printed manufacturing technology	South China University of Technology, China	
16:45-17:00	Oral speech	Ziyang Chang	Paper-based electrode material with modified cellulose fibers under metal-organic acid chelation	Zhejiang University of Science and Technology, China	
17:00-17:15	Oral speech	Alexander Maaß	Ink co-solvent migration and long-term curl of inkjet-printed paper	Graz University of Technology, Austria	
17:15-17:30	Oral speech	Jana Schaubeder	The effect of xylan degradation and adsorption on paper sheet properties	Graz University of Technology, Austria	
17:30-17:45	Oral speech	Yan Zhang	Liquefaction of Hemicellulose in the Presence of Polyhydric Alcohols and Analysis of its Liquefied Products	Zhejiang University of Science and Technology, China	
17:45-19:00 Banquet (Xihu Garden Hotel)					

Session 1: Paper physics, Simulation and Control

Location: Room 3A02, Qingqing Wenli Building

Thursday Morning, 1st June 2023

Time (UTC/GMT +8.00)	Program	Speaker	Title	Affiliate	Moderator
8:30-8:50	Invited speech	Jing Shen	Multifunctional thermoplastic paper enabled by aqueous cellulosic additives	Northeast Forestry University, China	Ulrich Hirn
8:50-9:10	Invited speech	Qingang Xiong	Particle- to reactor-scale CFD simulation of biomass pyrolysis and ML-based development of reduced-order models	South China University of Technology, China	
9:10-9:25	Oral speech	Chi Zhang	Molecular simulations of wood polymers	ETH Zurich, USA	
9:25-9:40	Oral speech	Christopher Oluwatobi Adeogun	The Influence of Thin Air Gap on the Electrical Parameters of a Meander Delay Line	Mountain Top University, Ogun, Nigeria	
9:40-9:55	Oral speech	Andrea Christine Pfennich	Water dispersability of papers–balancing material strength and dispersibility	Graz University of Technology, Austria	
9:55-10:15 Tea Break (20 min)					
10:15-10:35	Invited speech	Ulrich Hirn	Modeling Liquid Penetration into Paper Using Substrate and Liquid Surface Energies	Graz University of Technology, Austria	Jing Shen
10:35-10:55	Invited speech	Jaan-Willem Simon (Remote)	How to obtain contact properties for fiber-fiber bonds?	University of Wuppertal, Germany	
10:55-11:10	Oral speech	Xingyu Huang	Preparation of paper-based ultrafiltration membrane by thermal expansion curing method	Zhejiang University of Science and Technology, China	
11:10-11:25	Oral speech	Mossab Alzweighi (Remote)	On predicting moisture penetration history and curl response of bio-based materials based on machine learning approach	Solid Mechanics, Department of Mechanics, KTH Royal Institute of Technology, SE-100 44 Stockholm, Sweden	
11:25-11:40	Oral speech	Qixuan Lin	Application of molecular dynamics simulations in the conversion of biomass carbohydrates	South China University of Technology, China	
11:40-14:00 Lunch (Xihu Garden Hotel)					

Session 2: Novel Materials and Applications

Location: Room 3A01, Qingqing Wenli Building

Thursday Morning, 1st June 2023

Time (UTC/GMT +8.00)	Program	Speaker	Title	Affiliate	Moderator
8:30-8:50	Invited speech	Yu Liu	Preparation of ultra-fine and highly loaded silver nanoparticle composites and their highly efficient applications	Qilu University of Technology, China	Long Bai
8:50-9:10	Invited speech	Shunxi Song	Fillers Innovations: From Design of Particles to Preparing Filler Composites	Shaanxi University of Science & Technology, China	
9:10-9:25	Oral speech	Yahui Meng	DES plasticized polysaccharide film for preservation and monitoring freshness of perishable food	Zhejiang University of Science and Technology, China	
9:25-9:40	Oral speech	Yali Liu	Nanocellulose based flexible composite functional materials	Shaanxi University of Science & Technology, China	
9:40-9:55	Oral speech	Bin Yang	Aramid Nanofiber (ANF): A Promising Building Block for Strengthening and Toughening Aramid Paper-Based materials	Shaanxi University of Science & Technology, China	
9:55-10:10	Oral speech	Xin Gao	A promotion strategy by parenchyma biomass to improve mechanical strength and restorability of cellulose materials via partial dissolution with inorganic salt	Kunming University of Science and Technology, China	
10:10-10:30 Tea Break (20 min)					
10:30-10:50	Invited speech	Long Bai	Assembly of Nanocelluloses in Confined Interfaces for Multiphase Materials	Northeast Forestry University, China	Shunxi Song
10:50-11:10	Invited speech	Shilin Cao	Preparation and characterisation of antibacterial and antiviral lignocellulosic fibers modified by chitosan oligosaccharide	Fujian Agriculture and Forestry University, China	
11:10-11:25	Oral speech	Haiping Wang	Preparation of Zn-BDC@TOCNF membrane and fluorescence detection of CIP	Zhejiang University of Science and Technology, China	
11:25-11:40	Oral speech	Xin Tong	Selective sensing and mechanism of cellulose-based sensors: synthesis, characterization and DFT studies	Zhejiang University of Science and Technology, China	
11:40-11:55	Oral speech	Sining Huang	Rice-leaf-mimetic paper as a substrate for designing rewritable or lubricant-infused Surfaces	Northeast Forestry University, China	
11:55-14:00 Lunch (Xihu Garden Hotel)					

Session 1: Paper physics, Simulation and Control

Location: Room 3A02, Qingqing Wenli Building

Thursday Afternoon, 1st June 2023

Time (UTC/GMT +8.00)	Program	Speaker	Title	Affiliate	Moderator
14:00-14:20	Invited speech	Tetsu Uesaka (Remote)	Fibre Impacts on Packaging Performance: What Paper Physics Sees	Mid Sweden University	Chengrong Qin
14:20-14:40	Invited speech	Kuizhong Shen	Novel Biomechanical pulping Strategies for Energy Saving & Strength Improving by Coupling Hi-temperature Aerobic Fermentation with Hi-consistency Refining	Institute of Chemical Industry of Forestry Products, CAF, China	
14:40-15:00	Invited speech	Shiyu Fu	Improvement of paper from recycled fibers with cellulose nanofibrils	South China University of Technology, China	
15:00-15:15	Oral speech	Yishan Kuang	Effect of lignin in Lignin-containing nanofibrils on the stability of Pickering emulsions	Changsha University of Technology, China	
15:15-15:30	Oral speech	Yin Liu	An Improved Spring-Mass Model for Fiber Modeling and Paper Tensile Strength Prediction	South China University of Technology, China	
15:30-15:50 Tea Break (20 min)					
15:50-16:10	Invited speech	Xuejun Zou	Understanding of Tissue Web Non-uniformity and Its Impact on Tissue Making and Converting Efficiency	Pulp and Paper Research Institute of Canada, Canada	Kuizhong Shen
16:10-16:30	Invited speech	Richard J. Kerekes (Video)	Fibre-Based Characterization of Pulp Refining	University of British Columbia, Canada	
16:30-16:45	Oral speech	Wei Li	Fiber swelling to improve cycle performance of paper-based separator for lithium-ion batteries application	Guangxi University, China	
16:45-17:00	Paper Physics Committee meeting				Jarmo Kouko
17:45-19:00 Dinner (Xihu Garden Hotel)					

Session 2: Novel Materials and Applications

Location: Room 3A01, Qingqing Wenli Building

Thursday Afternoon, 1st June 2023

Time (UTC/GMT +8.00)	Program	Speaker	Title	Affiliate	Moderator
14:00-14:20	Invited speech	Weibing Wu	Cellulose paper-based materials for wastewater treatment	Nanjing Forestry University, China	Haisong Qi
14:20-14:40	Invited speech	Feng Xu	Novel cellulose solvents and cellulose-based functional materials for advanced applications	Beijing Forestry University, China	
14:40-15:00	Invited speech	Warren Batchelor (Remote)	Barrier Properties of Cellulose Nanomaterial Films	Monash University	
15:00-15:15	Oral speech	Haisong Qi	Preparation and properties of functional papers based on surface chemical modification	South China University of Technology, China	
15:15-15:30	Oral speech	Zaihua Duan	Flexible paper-based humidity and pressure sensors	University of Electronic Science and Technology of China, China	
15:30-15:45	Oral speech	Detao Liu	Cellulose Dissolution for Sustainable Paper and Wood materials	South China University of Technology, China	
15:45-16:05 Tea Break (20 min)					
16:05-16:25	Invited speech	Chunlin Xu (Remote)	Bio-based nanomaterials as aqueous dispersion coating for sustainable packaging	Åbo Akademi University	Detao Liu
16:25-16:45	Invited speech	Qinghua Feng	Direct dissolution of unbleached pulp in cold alkali urea and NMMO respectively for the construction of bioplastic	Hubei University of Technology, China	
16:45-17:00	Oral speech	Yimin Xie	Enhancement of paper properties by high-yield bio-pulping through screening of lignin-degrading fungus	Hubei University of Technology, China	
17:00-17:15	Oral speech	Sheng Chen	Lignocellulose-based sustainable functional materials	Beijing Forestry University, China	
17:15-17:30	Oral speech	Pengcheng Luan (For Qijie Chen)	Preparation and characterization of corn starch-based antimicrobial indicator films containing purple corn cob anthocyanin and tangerine peel essential oil for monitoring pork freshness	Changsha University of Technology, China	
17:30-19:00 Dinner (Xihu Garden Hotel)					

Main Session: Closing Ceremony + Keynote Speech

Location: Room 108, Qingqing Wenli Building

Friday Morning, 2nd June 2023

Time (UTC/GMT +8.00)	Program	Speaker	Title	Affiliate	Moderator
8:30-9:00	Keynote speech	Orlando Rojas (Remote)	Cellulose gelation and dissolution for material development	University of British Columbia, Canada	Huining Xiao
9:00-9:30	Keynote speech	Joel Panek (Remote)	The role of fundamental research in the paper industry	WestRock Company, USA	
9:30-10:00	Keynote speech	Chunyu Cao	The development of Chinese and Asian pulp and paper industry	China Technical Association of Paper Industry, China	
10:00-10:20		Tea Break (20 min)			
10:20-10:50	Keynote speech	Guang Chen	The development of high stretch paper and its application for plastic-alternative packaging	South China University of Technology, China	Ulrich Hirn
10:50-11:20	Keynote speech	Huining Xiao	Multi-barrier enhanced paper packaging: approaches, characteristics and mechanisms	University of New Brunswick, Canada	
11:20-11:50	Closing Ceremony	Closing ceremony speech and the next conference introduction video			Shiyu Fu
11:50-13:30		Lunch (Xihu Garden Hotel)			
13:30-17:30		Paper mill visit			

Poster Exhibition Catalogue

Time: 13:00-14:00 (31st May 2023)

Number	Name	Affiliate	Title
1	Jianguo Li	Fujian Agriculture and Forestry University	Recyclable and eco-friendly cellulose cooling material
2	Zongwei Zhang	Fujian Agriculture and Forestry University	Coupling Laccase/PHB and Ca ²⁺ treatment enable high-strength straw chemi-mechanical pulp
3	Chao Li	Dalian Polytechnic University	Waterproof and ultrasensitive paper-based wearable strain/pressure sensor from carbon black/multilayer graphene/carboxymethyl cellulose composite
4	Jianfeng Xi	Nanjing Forestry University	Smart gating cellulose-based membranes showing selectivity separation and self-cleaning performance
5	Liucheng Meng	Nanjing Forestry University	Nanocellulose/natural latex composite film with high barrier and preservation properties
6	Wen Bin	Zhejiang University of Science & Technology	Research on three-dimensional structure model and performance simulation of carbon paper base paper
7	Yi Wang	South China University of Technology	3D structure characterization of coated paper based on X-ray CT
8	Qiuxia Zou	Fujian Agriculture and Forestry University	Preparation of Bio-oil by Zeolite-catalyzed Pyrolysis of Lignin and Its Molecular Size Distribution Characteristics
9	Zaohao Lu	South China University of Technology	Multi-objective Optimization of Papermaking Wastewater Treatment Process Based on Deep Reinforcement Learning
10	Shixu Yu	Hubei University of Technology	Lignin self-assembly for the hydrophobic modification of cellulose film
11	Shizhong Li	South China University of Technology	Deep learning models for predicting and analyzing full-scale greenhouse gas emissions from papermaking wastewater treatment plant
12	Guojian Chen	South China University of Technology	Fault prediction of papermaking process based on Gaussian mixture model and Mahalanobis distance
13	Lei Guo	South China University of Technology	Functional papers based on surface chemical modification
14	Heli Cheng	Hubei University of Technology	An ultrastretchable, self-healing ionic conductive nanocellulose hydrogel for flexible strain sensor
15	Tian Chang	Nanjing Forestry University	A Novel Fault Detection Method for Wastewater Treatment Processes
16	Tong Hu	Nanjing Forestry University	A Novel Prediction Method of Effluent Quality Indices in Wastewater Treatment Processes Using Deep Learning and Metric Learning

17	Sheng Mi	Tianjin University	Bubble formation in step-emulsification devices with two parallel microchannels
18	Wenhua Gao	South China University of Technology	Distribution analysis of cellulose nanofibrils in paper handsheets: visualization approach
19	Cheng Xu	Guangxi University	Study on High-Ratio Chlorine Dioxide Synergistic Peroxide Bleaching
20	Jiayong Gao	Kunming University of Science and Technology	An attractive attempt: facile and direct adhesive of cellulose substrates using inorganic metal salt through partial welding
21	Jinlong Wang	Guangxi University	Highly Sensitive Self-powered Pressure Sensors over a Wide Pressure Range Enabled by Tailoring Free Volume of Cellulosic Triboelectric Materials
22	Yanhua Liu	Guangxi University	Control of the triboelectric charge density of cellulose nanofibrils by chemically tailored molecular surface modification
23	Bin Luo	Guangxi University	A superhydrophobic cellulose based triboelectric material for liquid energy harvesting
24	Chenchen Cai	Guangxi University	Integration of a conductive wood-based triboelectric nanogenerator and gas sensor for real-time wireless food-quality assessment
25	Mingchao Chi	Guangxi University	Aramid nanofiber aerogel paper based triboelectric nanogenerator for self-powered sensing
26	Song Zhang	Guangxi University	Bioinspired asymmetric amphiphilic cellulose-based surface for triboelectric enhanced efficient water harvesting
27	Rui Cheng	South China University of Technology	Multifunctional nanopapers-based composites
28	Wenchao Zeng	Fujian Agriculture and Forestry University	Electrospun chitosan nanofiber constructing superhigh-water-flux forward osmosis membrane
29	Pinle Zhang	Guangxi University	Properties and functionalization of nanocellulose-Cu (II) materials
30	Zicheng Du	Guangxi University	Rapid and mild fractionation of hemicellulose through recyclable mandelic acid pretreatment
31	Tao Liu	Guangxi University	Nanocellulosic triboelectric materials for moisture-resisting wearable sensors
32	Wenguang Zhao	Changsha University of Technology	Design of a novel starch-based synergistic flame retardant and its application in the insulating paper
33	Xin Wang	Guangxi University	Regulation of sodium ion in the cellulose lattice and its influence electrical properties
34	Jinxin Lan	Fujian Agriculture and Forestry University	Totally-green cellulosic fiber with prominent sustained antibacterial and antiviral properties for potential use in spunlaced non-woven fabric production
35	Juanli Shen	South China University of Technology	A β -cyclodextrin-based hydrogel with low-temperature rapid gelation and reverse for wound dressings

36	Xuedi Yang	South China University of Technology	Doped Carbon Quantum Dots /CNF Nanocomposites as a Platform for the Detection of Nitrite Ions in Food
37	Pengcheng Luan	Changsha University of Technology	Robust ionic gel derived from wood for biosensing