



sampe

Conference 24 Belfast

Date: 24th – 26th September 2024

Location: Titanic Museum, Belfast, Northern Ireland



TUESDAY 24 SEPTEMBER

Pre-Conference Plant Visits

14.00 - 17.00

Plant Tours

Excursions to Spirit AeroSystems, Artemis Technologies, Collins Aerospace, CCP Grandsden.
Transport by bus - departure Titanic Museum - 14.00 Hrs. - return time ± 17-18.00 Hrs

WEDNESDAY 25 SEPTEMBER

8.00 - 9.00

Registration

9.00 - 10.00

Plenary Opening Session - Titanic Suite

Welcome, by Tim Wybrow, Chairman SAMPE UK & Ireland
Opening, by Conchúr Ó Brádaigh, President SAMPE Europe
Key-note Speaker Kimberly Caldwell, Senior Director Global Research and Technology, Spirit AeroSystems, USA
Presentation Winners 39th Students Seminar, by Charlotte Salaün

9.15

9.45

10.00 - 10.30

Coffee Break - Sponsor Exhibition & Poster Presentations

10.30 - 12.30

Session 1 - 5/6 talks

Room 1 Titanic Suite

NO SESSION

Room 2 Olympic Suite

AEROSPACE MANUFACTURING/ PROCESSING

Session chair: Cedric Dupas, SAMPE France / DAHER

10.30 • *Large Complex Aircraft Skins Manufacturing by RTM* by André Bertin, Coexpair, Belgium

10.50 • *Analyzing the influence of process parameters on antistatic pipes produced by braiding pultrusion* by Cassandra Bauer, Fraunhofer IGCV, Germany

11.10 • *Manufacturing of Mono-Material Tunable Thermal Expansion Structures using Additive Extrusion* by Erik Johannsen, German Aerospace Center (DLR), Institute of Lightweight Systems, Germany

11.30 • *Investigation of the interactions in the melt impregnation process of yarn-based fibre semi-finished products* by Lars Wollert, ITA RWTH Aachen University, Germany

11.50 • *Potential for emission and cost reduction through tape technology integration in injection molding process* by Jan Petersen, AZL of RWTH Aachen University, Germany

12.10 • *Powder Epoxy Based Composites; Enabling Cost Effective, One-shot, Large, Composite Structures* by William Finnegan, University of Galway, Ireland

Room 3 The Bridge

RECYCLING THERMOPLASTIC COMPOSITES

Session chair: Peter Boer, Collins Aerospace

10.30 • *Recycling of Thermoplastic Composites, the route to implementation* by Hans Luinge, SPIRAL Recycled Thermoplastic Composites, Netherlands

10.50 • *Investigating the influence of additive polymer molecular weights on the mechanical performance of recycled thermoplastic composites* by Fausto Visser, TPRC / University of Twente, Netherlands

11.10 • *Development of Tailored Fiber Placement Technology Using the Hybrid Fiber consisted of Poly(xylylene sebacamide) PA-XD10 and Recycled Continuous Carbon Fiber* by Keisuke Ito, Mitsubishi Gas Chemical Company, Japan

11.30 • *Recycling of CF/PEEK prepreg offcut sheets: Influence of stacking sequence* by Aswani Kumar Bandara, University of Limerick, Ireland

Room 4 Britannic Suite

MECHANICAL PROPERTIES

Session chair: Prof. Aart van Vuure, SAMPE Benelux / Leuven University

10.30 • *Time-dependent shape change of carbon fibers-epoxy laminates* by Alfonso Maffezzoli, University of Salento, Italy

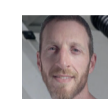
10.50 • *Measurement of Interfacial Shear Strength by Means of Micromechanical Single-Fibre Pull-Out Tests* by Dr. Stefan Fliescher, Textechno H. Stein, Germany

11.10 • *Predicting Compressive Behaviour in Fiber-Reinforced Composites through Micromechanical Damage Modelling* by Sudirja Sudirja, University of Bristol, United Kingdom

11.30 • *The case for macroscale through-thickness reinforcement for hybridised multifunctional composites* by Geoffrey Daniel Neale, Cranfield University, United Kingdom

11.50 • *Investigation of the significance of PPS Veils at the interface: A Study on bending, compression, and interlaminar fracture properties of carbon fiber reinforced Elium based PET sandwich composites* by Henry Start, University College Dublin, Ireland

12.10 • *A Consistent Framework for Evaluating Damage in Architected Joints* by Adrianos E. F. Athanasiadis, University of Edinburgh, United Kingdom



Tim Wybrow



Conchúr Ó Brádaigh



Kimberly Caldwell



Charlotte Salaün

12.15 - 13.30

Lunch - Sponsor Exhibition & Poster Presentations

13.30 - 15.30

Session 2 - 6 talks

Room 1 Titanic Suite

INDUSTRIAL INNOVATIONS

Session chair: Tim Wybrow, SAMPE UK & Ireland / SAEKI

13.30 • *Designing Tailored Sizing Agents for Enhanced Mechanical Properties in Benzoxazine Composites through Molecular Simulation*.by Elaheh Sedghamiz, Schrodinger, Germany

13.50 • *Recycling of Aramid Composites* by Walter Nijhuis, Teijin Aramid, Netherlands

14.10 • *Fast cure prepreg development to enable high-rate manufacture* by Matthew Cleaver, Hexcel, United Kingdom

14.30 • *3D Woven Composites for structural applications* by Julian Weber, Albany Engineered Composites, Germany

14.50 • *Development of Biobased Automotive Thermoset Composites* by Peter Wilson, Syensqo, United Kingdom

Room 2 Olympic Suite

HYDROGEN TANKS

Session chair: Marc Fette, CTC Airbus Germany

13.30 • *Cryogenic testing of composite materials for full composite LH2 Tank for commercial aircraft* by Alberto Lario Cabello, Toray Advanced Composites, Netherlands & Henri de Vries, NLR, Netherlands

13.50 • *Laminate optimization of a high-pressure hydrogen vessel (type 4) based on winding and patch placement technologies* by Luisa Kirsch, Technische Hochschule Augsburg, Germany

14.10 • *Endless Fibres from Hydrogen Tank Recycling by Innovative Carbon Fibre Sizing Techniques* by Oliver Deussen, Institut für Textiltechnik der RWTH Aachen University, Germany

14.30 • *Application of high-precision fibre-optic strain sensors to monitor the burst behaviour of composite pressure vessels* by Jannick Fuchs, Institute for Plastic Processing at RWTH Aachen University, Germany

14.50 • *Type V pressure vessel design with integrated SMC and prepreg bosses* by Gerrit Rehs, Bundeswehr University Munich, Germany

15.10 • *Innovative Mandrel Design and Development for Future-Ready Type V Hydrogen Pressure Vessels* by Akshay Mahadeo Deshmane, University of the Bundeswehr Munich, Germany

Room 3 The Bridge

RECYCLING ADVANCED FIBRES FROM THERMOSETTING RESINS

Session chair: Prof. Dipa Roy, University of Edinburgh, United Kingdom

13.30 • *Solvolyis as a methodology for the end of life of thermoset composite materials* by Julio Vidal, Aitiip Technology centre, Spain

13.50 • *Study of the flame protection properties of semi consolidated nonwovens made from recycled carbon fibers for aerospace components* by Christoph Klemm, ITA Augsburg, Germany

14.10 • *Hybrid Fibre Architecture Composites Manufactured Using Reclaimed Prepreg Manufacturing Waste* by Connie Qian, Sheffield University, United Kingdom

14.30 • *Influence of the Process Temperature in the Calendaring Process on the Mechanical Properties of rCF Staple Fiber Tapes* by Martin Detzel, Leibniz-Institut für Verbundwerkstoffe, Germany

14.50 • *Development and Industrialization of Composites Made from Waste Glass and Waste Mixed Polymers Diverted from Landfill* by Christopher Griffin, Johns Manville, USA

15.10 • *Exploring recycling solutions to address the growing challenge of wind turbine blade waste in China* by Fanran Meng, The University of Sheffield, UK

Room 4 Britannic Suite

JOINING, INCLUDING THERMOPLASTIC WELDING

Session chair: Sebastiaan Wijskamp, TPRC, Netherlands

13.30 • *Repair of impact damages in thermoplastic composite structures via reconsolidation* by Arthur Haverkort, TPRC (ThermoPlastic composites Research Center), Netherlands

13.50 • *Thermal degradation of high performance thermoplastic composites during the manufacturing process and the challenges for structural adhesive bonding* by Oliver Pelz, Helmut-Schmidt-Universität der Bundeswehr, Germany

14.10 • *Induction welding of thermoplastic composites with lightning strike protection* by Senne Sterk, Royal NLR - Netherlands Aerospace Centre, Netherlands

14.30 • *Towards tool-less thermoplastic manufacturing processes using a cooperating robot system* by Lars Brandt, German Aerospace Center (DLR), Germany

14.50 • *Increasing Design Options and Product Performance for Composite Materials by using Adhesive Bonding* by Dr Antonio Pagliuca, 3M Aerospace and Automotive Division, United Kingdom

15.10 • *Physical Testing and Modelling of Steel bracket to Fibre Reinforced Polymer (FRP) Decommissioned Wind Turbine Blade (WTB) Connection* by Vesna Jakšic, MTU Cork, Ireland

15.30 - 16.00

Coffee Break - Sponsor Exhibition & Poster Presentations

16.00 - 17.20

Session 3 - 4 talks

Room 1 Titanic Suite

39TH STUDENTS SEMINAR WINNERS

Session chair: Charlotte Salaün, 39th Students Seminar

16.00 • *Best Master Student presentation*

16.30 • *Best PhD Student presentation*

Room 2 Olympic Suite

AUTOMATED FIBRE (TAPE) PLACEMENT I

Session chair: Prof Clara Frias, AMRC, United Kingdom

16.00 • *Use of Tailored Fibre Placement (TFP) and filament winding (FW) to manufacture electrical rotors for aerospace applications* by Samuel Furtado, University of Sheffield, United Kingdom

16.20 • *Process model calibration for laser-assisted thermoplastic automated fiber placement by process data* by Heiko Baumann, Fraunhofer IPT, Germany

16.40 • *Impact of tape characteristics on consolidation quality in laser-assisted automated fiber placement* by Kilian Seefried, Fraunhofer IGCV, Germany

17.00 • *Investigation of Machine Head Effects on Process Parameters in Automated Fiber Placement* by Ben Francis, University of South Carolina, USA

Room 3 The Bridge

SANDWICH CORES AND STRUCTURES I

Session chair: Tamara Blanco Varela, SAMPE Ibérica / Airbus, Spain

16.00 • *Analytical and Numerical Modeling of Aramid Honeycomb Cores* by Jens Bold, Aerospace and Space, Germany

16.20 • *Multifunctional "crushcore" technology for cockpit linings* by Gilles Andrieu, Airbus Atlantic, France

16.40 • *Liquid Composite Moulding of Healable Composites* by Bertrand Gresle, CompPair, Switzerland

Room 4 Britannic Suite

MATRIX SYSTEMS I

Session chair: Terry McGrail, Irish Centre for Composites Research, Ireland

16.00 • *Simulative cure optimization of ultra-thick laminates using multiple epoxy resin systems* by Hendrik Möllers, Clausthal University of Technology, Germany

16.20 • *Curing of RTM manufactured parts using microwave technology* by Maximilian Steinhardt, Technical University of Munich, Germany

16.40 • *Material Characterisation of an Infusible Thermoplastic Resin for Wind and Tidal Turbine Blades* by Anastasia Tsavea, University of Sheffield, United Kingdom

17.00 • *Bio-based recyclable epoxy-CFRP composites: UV, water, ageing and recycling* Radoslaw F. Walczak, The University of Sheffield, United Kingdom

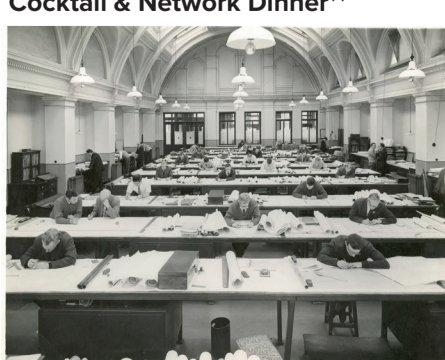
17.00 - 19.00

Visit of Titanic Galleries and experience the Shipyard Ride

The RMS Titanic is the "unsinkable" ship that was built in Belfast in the early 1900s and sailed on its maiden voyage in April 1912. The Shipyard Ride takes a closer look at the building of the RMS Titanic which at the time was the largest ship ever built.

19.00 - 21.30

Cocktail & Network Dinner**



Cocktail & Walking Dinner will be held in the Drawing Room of Titanic Hotel - opposite Titanic Museum. In this room all drawings for the Titanic were made.

**For delegates with DINNER badge only.



8.00 - 8.30 **Registration**

8.30 - 10.10 **Session 4 - 5 talks**

Room 1 Education Suite

AUTOMOTIVE & TRANSPORT

Session chair: Prof. Luigi Torre, SAMPE Italy / Perugia University

8.30 • *Advanced continuous fibre thermoplastic composite materials for light, efficient and sustainable mobility* by Guillermo Uldemolins De Olives, Aimplas, Spain

8.50 • *Feasibility Study of recycled Polyamide 6 as Liner Material for Type IV Hydrogen Pressure Vessels* by Niclas Richter, BMW Group, Germany

9.10 • *Unique Stress Concentration in Single Lap Joint between Unidirectional CFRP and Steel* by Kazutami Mitani, Kanazawa Institute of Technology, Japan

9.30 • *Additive Manufacturing of structural components with improved thermal management* by Tessa ten Cate, TNO - Brightlands Materials Center, Netherlands

9.50 • *Investigation of the Influence of Material Shrinkage on the Bond Strength of Cylindrical Thermoset-Metal-Hybrids* by Nils Schmeißer, Chemnitz University of Technology, Germany

Room 2 Olympic Suite

AUTOMATED FIBRE (TAPE) PLACEMENT II

Session chair: Matt Scott, NCC, United Kingdom

8.30 • *Optimization of Automated Fiber Placement Process Parameters Through a Surrogate Hybrid Quality Model* by Matthew Godbold, University of South Carolina, USA

8.50 • *Qualification methodology for automated fiber placement and concept for its industrialization* by Kevin Scheterlein, Fraunhofer IGCV, Germany

9.10 • *Induction heating for Automated Fibre Placement toolings* by Daniel Fricke, DLR - German Aerospace Center, Germany

9.30 • *3D characterisation of local deformation and damage development in Tailored Fibre Placement-manufactured composites under tensile loading* by Guowen Sun, University of Sheffield, United Kingdom

9.50 • *Effect of process parameters on the quality of carbon fibre preforms manufactured by automated dry fibre placement (ADFP)* by Shimin Lu, University of Nottingham, United Kingdom

Room 3 The Bridge

SUSTAINABILITY

Session chair: Sebastian Bühler, SAMPE Switzerland / Biontec

8.30 • *Sustainable composites development in Northern Ireland* by Sam Turner, AMIC - Advanced Manufacturing Innovation Centre Belfast, Northern Ireland

8.50 • *A comparative life cycle assessment of an aerospace part produced with recycled thermoplastic composites and baseline process-material combinations* by Thomas de Brijn, GKN Fokker, Netherlands

9.10 • *Comparative study on the application of carbon fiber reinforced thermoplastic and duroplastic components* by Jascha Schmied, BIONTEC - Bionic Composite Technologies, Switzerland

9.30 • *Energy consumption and distribution planning in early technical and manufacturing readiness level steps for sustainable CFRP manufacturing technologies* by Jannis Eckhoff, CTC (An Airbus Company), Germany

9.50 • *A Comprehensive Investigation of Strategies to Enhance the Sustainability of Advanced Composite and Plastic Components along their Life Cycle* by Sönke Detjen, CompriseTec, Germany

Room 4 Britannic Suite

MATRIX SYSTEMS II

Session chair: Colin Robert, University of Sheffield, United Kingdom

8.30 • *An innovative sample preparation strategy to visualize the crystalline structure of fiber reinforced thermoplastic composites by polarized optical microscopy* by Yuki Yoshida, Toray Industries Europe GmbH Toray Automotive Center Europe, Germany

8.50 • *The application of a partially co-curing process on toughened epoxy resin system* by Ayca Ozkan Keles, Turkish Aerospace Industry, Turkey

9.10 • *Effects of wet aging and drying cycles on thermal and mechanical properties of carbon fiber reinforced advancedly toughened aerospace grade epoxy composites* by Naime Akbaşoğlu Ünlü, Turkish Aerospace Industry, Turkey

9.30 • *The effect of modifying anhydride structures on the thermomechanical behaviour of cured epoxy* by Moses Yibowei, University of Sheffield, United Kingdom

9.50 • *Development of Carbon-Polyimide powder coated semi-preg for high temperature composite applications* by Ronald Klomp - de Boer, Royal NLR - Netherlands Aerospace Centre, Netherlands

10.10 - 10.30 **Coffee Break - Sponsor Exhibition & Poster Presentation**

10.30 - 12.30 **Session 5 - 6 talks**

Room 1 Education Suite

CIVIL ENGINEERING & BUILDING STRUCTURES

Session chair: Vesna Jaksic, Munster Technological University, Ireland

10.30 • *CNN-based Reconstruction of Sub-surface Defects in Composites from Thermal Images* by Christian Eitzinger, Profactor, Austria

10.50 • *Recycled Carbon Fibres in the construction industrie - potentials, processes and future prospects for sustainable resource utilisation* by Vanessa Overhage, Institut für Textiltechnik of RWTH Aachen University, Germany

11.10 • *Improving Tensile Properties of Concrete Through Embedded Carbon Fibre Helical Bands* by Jasotharan Siharan, The University of Edinburgh, United Kingdom

Room 2 Olympic Suite

ARTIFICIAL INTELLIGENCE

Session chair: Guy Larnac, SAMPE France/ Ariane Group

10.30 • *Fiber Volume Content Characterization of Flax Fiber Reinforced Plastics Using Deep Learning* by Ava Chavoshi & Paul Baudach, Technical University of Chemnitz - Professorship of Textile Technologies, Germany

10.50 • *AI-based Inspection of Recycled Carbon Fibre Fabric* by Denis Krajnc, Profactor, Austria

11.10 • *Machine Learning based Classification of Lay-up Defects in the Automated Fiber Placement Process with Artificial Image Data* by Fabian Diemar, Technical University of Munich, Germany

11.30 • *Model-based Design for Manufacturing of Automated Fiber Placement (AFP) Composite Structures* by Maximilian Holland, Fraunhofer IGCV, Germany

11.50 • *Machine Learning Implementation to improve the automation of Finite Element-Based Simulations* by Muhammad Saeed, Swinburne University and University of Stuttgart, Australia

Room 3 The Bridge

SANDWICH CORES AND STRUCTURES II

Session chair: Emer McAleavy, Artemis, Northern Ireland

10.30 • *Development of sustainable thermoplastic near-net-shape lightweight sandwich structures using folding cores and organic sheets made from recycled carbon fibers* by Benedikt Auernhammer, ITA Augsburg, Germany

10.50 • *New design for mass reduced load introduction elements supported by spider web reinforcement in FRP sandwich structures: Structural behavior analysis using a combined virtual-physical building block approach* by Eckart Kunze, University of Technology Dresden, Germany

11.10 • *Directionality influence in sandwich core materials from natural sources* by Mikko Kanerva, Tampere University, Finland

11.30 • *Influence of boundary conditions on the processability of functionalized sandwich composites for application as underbody structures* by Aaditya Pradeep Suratkar, Fraunhofer ICT, Germany

Room 4 Britannic Suite

INDUSTRY 4.0 AND CASE STUDIES

Session chair: Alberto Lario Cabello, Toray Advanced Composites, Netherlands

10.30 • *A wide-ranging perspective on sustainability research at the NCC* by Matt Scott, National Composites Centre (NCC), United Kingdom

10.50 • *New hybrid design of carbon fibre composite rotor shafts with improved thermal conductivity in transverse direction for high-performance electric machines* by Michael Schiffer, Technische Universität Dresden, Institute of Lightweight Engineering and Polymer Technology, Germany

11.10 • *Fan Impellers made of continuous fibre-reinforced polymer in modular design for improved performance in sustainable energy applications* by Alik Dargel, Technische Universität Dresden, Institute of Lightweight Engineering and Polymer, Germany

11.30 • *Investigation of Composite Materials for Morphing Structures* by Brian Bautz, Airbus 1XRM2, Germany

11.50 • *End to end manufacturing simulation of composite components* by Juan Manuel González Cantero, Airbus Operations S.L., Spain

12.10 • *Navigating Industry 4.0: A Case Study in Composite Manufacturing* by Lu Sun, Airborne, United Kingdom

12.30 - 14.00 **Lunch - Sponsor Exhibition & Poster Presentations**

14.00 - 16.00 **Session 6 - 6 talks**

Room 1 Education Suite

MARINE

Session chair: Edward Archer, Ulster University Belfast

14.00 • *Investigating the effect of surface topography towards antifouling* by Sara Nasr, School of Engineering, Ulster University, Northern Ireland

14.20 • *Utilisation of ultrasound technology on carbon fibre reinforced polymer and its potential to mitigate marine biofouling* by Mary Josephine McIvor, School of Engineering, Ulster University, Northern Ireland

14.40 • *3D printing cornering limitations and curvature stiffness of continuous stainless steel fibre polymer composites* by Alison Clarke, University College Dublin, Ireland

15.00 • *Non-destructive Testing Of Thick Marine Composites Using Ground Penetrating Radar* by James Quinn, The University of Edinburgh, United Kingdom

Room 2 Olympic Suite

ADDITIVE MANUFACTURING

Session chair: Mikko Kanerva, SAMPE Finland / Tampere University

14.00 • *Lean, Green, and Fast: Revolutionising Composite Tooling with Additive Manufacturing Innovations* by Tim Wybrow, SAEKI Robotics, Switzerland

14.20 • *"Investigation of Compressive Isotropy in 3D Printed C-PEEK Gyroid Structures"* by Valentina Trimini, Politecnico di Bari, Italy

14.40 • *Mechanical testing of 3D-printed HPTP for cryogenic applications: Evaluation of processing parameters and test set-up* by Florian Fuchs, Helmut-Schmidt-University, Germany

15.00 • *Annealing 3D Printed PEKK: Investigating the Impact of Annealing on the Mechanical, Physical, and Thermal Properties in Additively Manufactured PEKK* by Aaron Maloney, Technological University of the Shannon, Ireland

15.20 • *Induction heating of additively manufactured carbon fibre composites* by Michael Flanagan, University of Galway, Ireland

15.40 • *Development of 4D Printed Photocurable Resin Modified with Functionalised Graphene Nanoplatelets for Biomedical Applications* by Mohamad Alsaadi, University of Limerick, Ireland

Room 3 The Bridge

DURABILITY

Session chair: Christian Keun, SAMPE Germany / CompriseTec

14.00 • *Reducing the environmental knock-down in composite structures design* by Alberto D'Amore, Università della Campania "Luigi Vanvitelli", Italy

14.20 • *An extended 3D shear lag model for understanding the influence of the fibre-matrix interface in microstructural damage of UD-FRP: a dynamic-cyclic fibre-parallel loading case* by Nicolas Roza Lopez, Institute for Plastics Processing (IKV), RWTH Aachen University, Germany

14.40 • *Influence of Stacking Sequence and Exclusion Diameter on Mechanical Performance of Notched Angle-Ply CF-Epoxy Laminates* by James Robert Davidson, The University of Sheffield, United Kingdom

15.00 • *Potential Study: Direct Induction Heating System as Energy and Time Optimised Technology for CFRP Structures* by Lukas Sauerland, Faserinstitut Bremen, Germany

15.20 • *Comparative Study on Influence of Seawater Ingress on the Mechanical Properties of 2D and 3D Woven Composites* by Anto Antony Samy & Alistair McIlhagger, School of Engineering, Ulster University, Northern Ireland

Room 4 Britannic Suite

PROCESS MEASUREMENT AND MONITORING

Session chair: Marcus Kremers, Airborne, Netherlands

14.00 • *Inline Fiber Damage Detection During Production of Towpregs* by Youssef Mraidi, Technische Universität München LCC, Germany

14.20 • *Space Composite Structures Life-Cycle Monitoring* by Thibault Juwet, Com&Sens/Ghent University, Belgium

14.40 • *Ultrasonic Injection and Cure Process Monitoring: Enhancing Efficiency and Quality Assurance* by Nico Liebers, German Aerospace Center, Germany

15.00 • *Measuring Fibre Volume Fraction of Woven Carbon Composite using the Eddy Current Method* by Christopher Silva, M Wright & Sons, United Kingdom

15.20 • *The Science & Practice of Resin Infusion - Touching the Voids* by Tim Searle, Composite Integration, United Kingdom

15.40 • *Evaluate the Moldflow Rotational Diffusion (MRD) Fiber Orientation Model Parameters for Improved Accuracy in Thermoplastic Injection Molding Simulation: A Design of Experiments (DoE) Approach with 40% Glass Fiber Reinforced Polypropylene* by Thomas Willerer, Technical University of Munich / Webasto, Germany

16.00 - 16.30 **Farewell drink & Closure**

FRIDAY 27 SEPTEMBER

9.00 - 12.00 **Plant Tours**

Excursions to Spirit AeroSystems, Artemis Technologies, Creative Composites. Transport by bus - departure Titanic Museum - 9.00 Hrs. - return time ± 12-12.30 Hrs

POSTER PRESENTATIONS WEDNESDAY 25 & THURSDAY 26 SEPTEMBER

- *3D printing of recycled polymer composites from mixed polyolefin blends and nanoadditives* by Ranji Vaidyanathan, Oklahoma State University, USA
- *Exploring Natural Fiber Reinforcements in High-Density Polyethylene Composites: Towards Cost-Effective and Eco-Friendly Materials* by Nitin Kumar Arya, IIT Bombay, India
- *Modern Measurement Techniques for Evaluation of Composite Materials* by Berrin Degirmenci, Alpha Technologies, Italy
- *Composite Injection Overmoulding: Computational Advances In Interface Simulation* by Ali Aravand, Queens University Belfast, Northern Ireland
- *Developments in Xenon Flashlamp Heating of Composite Material humm3® Technology* by Ross Kitson, Excelitas Noblelight, United Kingdom
- *Recycling of material waste into thermoplastic composites* by Dr. ir. Richard Janssen, TNO - Brightlands Materials Center, Netherlands
- *Experimental analysis of fiber characteristics and their expected effects on a novel laser sintering process for additively manufactured continuous carbon fiber reinforced polymer parts* by Simon Zeidler, Karlsruhe Institute of Technology, Germany
- *Megatrends in society and their impact on next-generation products and production processes using the example of the hybrid molding process* by Matthias Froning, Institut für Textiltechnik Augsburg, Germany
- *High-Density Thermochemical Energy Storage Using CaCl2-Loaded Biocarbon Composites* by Maryam Yazdani McCord, Aalto University, Finland
- *Monitoring the network formation in structural isomers of multifunctional epoxies* by Matt Whittaker, University of Sheffield, United Kingdom
- *Failure modeling and crack propagation of discontinuous laminates based on peridynamics* by Matthias Kormmann, Technical University of Applied Sciences Augsburg, Germany
- *Airborne radome: An Use-case for Application of Natural Fibre Composites in Aerospace* by Samudra Dasgupta, Bristol Composites Institute, University of Bristol, United Kingdom
- *Structural simulation and alternative fabrication of a rear suspension fork link using composite materials for electrical vehicle applications* by Maria Lasheras, NAITEC, Spain
- *AI/10Mg additively manufactured anchors for a novel multimaterial hybrid joining for aerospace* by Sara Varetto, Leonardo, Italy
- *Textile technologies for the valorization of carbon fiber and other reinforcement fibers from recycled composites* by Ivan Domenech, AITEC - Research and Innovation Center, Spain
- *A comparison of the mechanical and EMI shielding properties of PC/ABS and PC/ABS/CNT polymer nanocomposites manufactured using the Arborg plastic freeformer* by Caolan Jameson, Technological University of the Shannon, Ireland
- *Development Of Sustainable Composite Materials With Reduced Carbon Footprint For Automotive Industry* by Javier Alias, NAITEC, Spain

39TH STUDENTS SEMINAR 2024

- Jury 39th SE Students Seminar 24**
- Chairman*
Christian Weimer, SAMPE Germany
- Vice Chairman*
Charlotte Salau, SAMPE France
- Members*
Carwyn Ward, SAMPE UK & Ireland
Matthias Geistbeck, SAMPE Germany
Markus Zogg, SAMPE Switzerland
Adrie Kwakernaak, SAMPE Benelux
Jim Johnson, SAMPE USA
Norm Wereley, SAMPE Global
- Assistant*
Edward Archer, Ulster University, Northern Ireland
- *A multiscale study of UV treatment and its effect on UV-irradiated PAEK composites and epoxy composites co-cured joints* by Liran Katz, University of Twente/TPRC, Netherlands
- *Optimisation of a MXene-based thermoplastic carbon-fibre reinforced composite for structural capacitive energy storage* by Marion Cardous Catholic University of Leuven, Belgium
- *Polymeric nonwovens systems for recycled glass fibre nonwovens* by Jesse Savolainen Tampere University, Finland
- *Comportement et mécanisme de la solidification et mécanisme de recristallisation dynamique et post dynamique de superalliages base nickel monogranulaire* by Louise Grau, Institut Prime, ENSMA, Ecole doctorale IMTME, France
- *Développement de matériaux composites architecturés bio-inspirés à partir de ressources partiellement lunaires* by Pierre-Louis Pichard, Université de Bretagne Sud, France
- *Recyclierbare Epoxydharze für die Herstellung nachhaltiger Faserverbundwerkstoffe als Leiterplattensubstrate* by Anna-Lena Seibel, Bayreuth University, Germany
- *Experimentelle und numerische Analyse der Oberflächenwelligkeit von endlosfaserverstärkten uroplastischen Faserverbundwerkstoffen* by Niclas Lorenz, WITM Aachen, Germany
- *Multifunctional interphases for structural composites* by Laura Simonini, University of Trento, Italy
- *Multiple repair cycles of Kevlar Reinforced Vitrimer Composites* by Gianmarco Colella, Politecnico di Milano, Italy
- *Characterization of Thermal and Mechanical Effects on Lamb Waves in Aeronautics* by Jesús Sesé Enriquez de Aleranaca, Polytechnic University of Madrid, Spain
- *Novel Spatial Winding Process for the Production of Ultra-Lightweight Components for Aviation*, by Philipp Locher, ZHAW Winterthur, Switzerland
- *Advanced processing of needed thermoplastic intermediate materials*, by Lukas Sprig, ETH Zürich, Switzerland
- *Investigation on the manufacture of hierarchical composites and their mechanical compressive performances* by Nicholas Darras, University of Bristol, United Kingdom
- *Life Cycle Assessment Lessons from Composite Product Manufacturing: A Case Study of Large-Scale Yacht Manufacture* by Badr Moutik, University of Plymouth, United Kingdom
- *Continuous Carbon Nanotube Yarn Scaled-up High-Strength Composite Laminates* by Cecil Evers, Florida State University, United States

Final Programme September 20 2024 - Subject to later Changes -

SUPPORTER
We would like to thank Belfast City Council, Tourism Northern Ireland and Visit Belfast for their support of the SE Conference 2024.

MAIN SPONSOR CONFERENCE BELFAST 2024
SPIRIT AEROSYSTEMS

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TABLE TOPS BELFAST 2024
BIONTEC, HITACHI, Hitachi Energy, Schrödinger, kraffton, Johns Manville, Fontijne, TORAY, HEATCON, PINETTE PEI, OCGNET, texklimp, airborne, OUPONT, SAEKI, Bindatex, Textechno, MITSUBISHI GAS CHEMICAL, bayab

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