



Conference 22 Hamburg

Date: 15 - 17 November 2022  
Location: Handelskammer Hamburg – Germany



TUESDAY 15 NOVEMBER

PRE-CONFERENCE TUTORIAL on REPAIR

13.30 **Entrance Handelskammer Hamburg**  
Registration Tutorial

14.00 – 17.00 **Alber-Schäfer-Saal - 1st Floor**  
**Session chair: Henrik Schmutzler, Lufthansa Technik, Germany**  
**5 Presentations:**

- 1 Challenges in Composite Training and Repair by Andreas Meyer – Lufthansa Technical Training
- 2 Fuselage and wings by Thomas Kruse-Strack – Airbus Operations
- 3 Helicopter (Rotor and/or doors) by Hannes Schmid – Airbus Helicopters
- 4 Defence by Dr. Thomas Körwien – Airbus Defence and Space
- 5 Structures by Henrik Schmutzler – Lufthansa Technik

Length of presentations 30 min. Break after 3rd speaker.

WEDNESDAY 16 NOVEMBER

8.00 - 9.00 **Registration**

9.00 - 10.00 **Opening**

- Welcome by Prof Frank Henning, President SAMPE Germany
- Plenary Session Chair Christian Keun, Organizing Cie. Conference Hamburg 22
- Opening by Guy Larnac, President SAMPE Europe
- Keynote presentation by Claudio Dalle Donne, Head of Materials, Processes & Tests, Airbus Operations Bremen
- Presentation Winners 37<sup>th</sup> Students Seminar by Guy Larnac, President SAMPE Europe

9.15

9.45

10.00 - 10.30 **Coffee Break**

10.30 - 12.30 **Session 1 - 6 talks**



Room 1 Börsensaal	Room 2 Alber-Schäfer-Saal	Room 3 Elbe-Zimmer	Room 4 Alster-Zimmer
<b>37<sup>th</sup> STUDENTS SEMINAR WINNERS</b>	<b>AEROSPACE &amp; SPACE</b>	<b>ADDITIVE MANUFACTURING</b>	<b>TESTING, DESIGN &amp; SIMULATION I</b>
<p>Session chair: Charlotte Salaun, Vice Chairman Jury, France</p> <ul style="list-style-type: none"> <li>• Best Master Student</li> <li>• Best PhD Student</li> </ul>	<p>Session chair: Guy Larnac, Ariane Group, France</p> <ul style="list-style-type: none"> <li>• Sustainable Materials and Process Strategies for the Aircraft of Tomorrow by Lorenç Llopart, Boeing Research &amp; Technology, Germany</li> <li>• Rapid Cure Prepreg for Aerospace Applications by Jens ter Braak, Teijin Carbon Europe, Germany</li> <li>• Safety-relevant composite structures for future resource saving jet engines by Alrik Dargel, Rolls-Royce Deutschland \ TU dresden, Germany</li> <li>• Manufacturing study on CFRP rear pressure bulkhead using Vacuum Assisted Process (VAP) by Jan Faber, DLR, Germany</li> <li>• A digital process-data-assessment method for tailored fiber placement preforms by Jonas Kluger, TU Dresden, Germany</li> <li>• Release properties of plasma polymeric coated polymer films and adhesive strength of transferred polyurethane coatings to fiber-reinforced thermosets by Pascal Baur, Fraunhofer IFAM, Germany</li> </ul>	<p>Session chair: Simon Kaysser, CompriseTec, Germany</p> <ul style="list-style-type: none"> <li>• Hybrid Processing Advances Increase Versatility, Performance of Structural CFRTP Composites through Additive Manufacturing/Compression Molding by Yannick Willemin, 9T Labs, Switzerland</li> <li>• Innovative Thermoset Materials and Additive Manufacturing Processes to Eliminate Mechanical Anisotropy in Fused and Continuous Filament Fabrication by Björn Riecken, CompriseTec, Germany</li> <li>• Highly aligned discontinuous fibre composite filaments for fused deposition modelling: Layer investigation by Narongkorn Krajangsawadi, University of Bristol, UK</li> <li>• Determination of optimal process parameters for selective laser melting for metal additivemanufacturing by scanning path simulation by Joren Pelfrene, Flanders Make, Belgium</li> <li>• Functional and lightweight composites using additive manufacturing by Fidel Valega, Brightlands Materials Center, NL</li> </ul>	<p>Session chair: Prof. Bodo Fiedler, Hamburg University of Technology, Germany</p> <ul style="list-style-type: none"> <li>• Controlled delamination induced by symmetrical laser shock by Marine Scius-Bertrand, Rescoll, France</li> <li>• Analysis of transient response and failure initiation by impact demolding of composite parts by Johannes Stolz, Faserinstitut Bremen, Germany</li> <li>• Identifying design guidelines for inductive heaters in RTM process using numerical modelling by Gero Förster, Faserinstitut Bremen, Germany</li> <li>• Simulation-Driven Design (SFE) – A Concept for Forming Simulations by Muhammad Saeed, Stuttgart University &amp; TU Swinburne, Germany</li> <li>• Health monitoring of CFRP Laminates under cyclic loading via vibro-acoustic modulation based measurements by Erik Willmann, TU Hamburg, Germany</li> <li>• Impact of Automated Fibre Placement Technologies for Complex Shaped Parts by Andreas Friedel, TU Braunschweig, Germany</li> </ul>

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

14.00 - 15.20 **Session 2 - 4 talks**

Room 1 Börsensaal	Room 2 Alber-Schäfer-Saal	Room 3 Elbe-Zimmer	Room 4 Alster-Zimmer
<b>HYDROGEN STORAGE</b>	<b>THERMOPLASTICS IN AEROSPACE I</b>	<b>AUTOMATION</b>	<b>TEXTILES AND PREFORMING</b>
<p>Session chair: Volker Trappe, Bundesanstalt für Materialforschung und -prüfung (BAM), Germany</p> <ul style="list-style-type: none"> <li>• H2 meets Aviation – A presentation on hydrogen application in aircraft systems by Tobias Meyer, CTC, Germany</li> <li>• Novel structure-integrated hydrogen storage systems for aerospace applications by Nicole Motsch-Eichmann, Leibniz Institut, Germany</li> <li>• Sustainable composite H2 tanks: 15% material saving by automated dome reinforcements by Florian Lenz, Cevotec, Germany</li> <li>• Novel matrix materials and design concepts for high pressure hydrogen storage composite vessels by Markus Wolfarth, PCC Leoben, Austria</li> </ul>	<p>Session chair: Sebastiaan Wijskamp, TPRC, NL</p> <ul style="list-style-type: none"> <li>• Development of an Out-of-Autoclave Thermoplastic Composite Spar by Michael Wielandt, GKN Fokker, Netherlands</li> <li>• Automated Fibre Placement (AFP) Consolidation with LMPAEK-Based Uni-Directional Tape: Achieving Thermosets Layup Speeds &amp; Complex Large Parts Manufacturing by Gilles Larroque, Vitrex, France</li> <li>• Innovative multi-technology thermoplastic fuselage panel by Lucas Binsfeld, Airbus Atlantic, France</li> <li>• Thermoplastic Processing Technologies Towards Industrialization by Stefan Jarka, DLR, Germany</li> </ul>	<p>Session chair: Prof. Andrew Mills, Cranfield University, UK</p> <ul style="list-style-type: none"> <li>• Simulation of the placement behavior of fiber patches including draping effects with a foam-based gripper by Matthias Kormann, University of Applied Sciences Augsburg, Germany</li> <li>• Smart sensors for autonomous robotic panel assembly by Alfons Schuster, DLR, Germany</li> <li>• Influence of Powder-Epoxy Towpregging Line Processing Parameters on Towpreg Consolidation by Hanisa Hasrin, University of Edinburgh, UK</li> <li>• Application of a novel ultrafast manual and automatic joining process for thermoplastic aircraft brackets to metallic and thermoset fuselage components using ultrasonic technology by Philipp Köhler, CTC, Germany</li> </ul>	<p>Session chair: Florian Brillowski, RWTH Aachen, Germany</p> <ul style="list-style-type: none"> <li>• Determination of the shear angle on the basis of the geometric surface slope by Boris Manin, RWTH Aachen, Germany</li> <li>• Serial Process for Customized and Sustainable Semi-Finished Prepreg Products by Florian Brillowski, RWTH Aachen, Germany</li> <li>• Process window and weld strength analysis of ultrasonic spot welds on bindered dry-fibre carbon tapes by Nils Widmaier, TU Swinburne, Australia</li> <li>• Development of automated preform technologies for complex shaped parts by Henri de Vries, Royal Netherlands Aerospace Centre, NL</li> </ul>

15.20 - 15.50 **Coffee Break**

15.50 - 17.50 **Session 3 - 6 talks**

Room 1 Börsensaal	Room 2 Alber-Schäfer-Saal	Room 3 Elbe-Zimmer	Room 4 Alster-Zimmer
<b>INDUSTRIAL INNOVATION I</b>	<b>AEROSPACE MANUFACTURING I</b>	<b>AUTOMOTIVE &amp; TRANSPORT</b>	<b>MECHANICAL CHARACTERISATION</b>
<p>Session chair: Tim Wybrow, Neos International, UK</p> <ul style="list-style-type: none"> <li>• Link between innovation and control – the sensitive balancing of standards and technological progress via superordinate closed-loop control by Julia Beter, ENGEL Austria, Austria</li> <li>• Enable Revolutionary Developments Sustainably and Scalably by Max Schultes, RAMP Group, Germany / USA / Canada</li> <li>• Efficient manufacturing of composite components for aircraft interior applications by Sebastian Bühler, Biontec, Switzerland</li> <li>• Novel Composite Manufacturing Technologies for Green Mobility by Marcus Kremers, Airborne, UK / Netherlands</li> <li>• A novel thermoplastic rigid particle foam, meeting FST and Heat Release requirements of large (Interior) aircraft components by Denis Holleyn, Evonik, Germany</li> </ul>	<p>Session chair: Tamara Blanco Varela, SAMPE Ibérica, Spain</p> <ul style="list-style-type: none"> <li>• Investigating the Hybridization Effect of Towpreg on the Bending Properties of Sheet Molding Compound Part by Hao Wang, RWTH Aachen, Germany</li> <li>• Equipment and process for high-rate RTM production of large aerospace structures by André Bertin, Coexpair, Belgium</li> <li>• Design of Modular, CFRP-Encased Power Electronic Converters for More-Electric Aircraft Applications by Mark Higgins, University of Strathclyde, UK</li> <li>• Design optimization procedure of autoclave loading based on process simulation and neural network by Juhong Zhu, Faserinstitut Bremen, Germany</li> <li>• Tailored non-crimp fabric for eVTOL propellers - optimized fiber materials for high mechanical performance and efficient manufacturing by Rico Hubert, University of Applied Sciences Aachen, Germany</li> <li>• Innovative translucent Epoxy-SMC for Applications with Flame retardant properties by Simon Kaysser, CompriseTec, Germany</li> </ul>	<p>Session chair: Prof. Jyrki Vuorinen, Tampere University, Finland</p> <ul style="list-style-type: none"> <li>• High-speed compression of structural polymers by Siebe Spronk, Solvay, Belgium</li> <li>• Pathway Towards Inverse Design of Sandwich Panels: Equivalent Shell Model for Cellular Core Sandwich Panels by Dilum Fernando, University of Edinburgh, UK</li> <li>• Implementation of structural thermoplastic composites in a 45' intermodal container by Jan Verhaeghe, Agesia - Structural Composite Technology, Belgium</li> <li>• Ultrafast Terahertz Sensing for inline production control and automated inspection: Non-Destructive Testing and 3D Imaging of Composites and Bondings by Uli Schmidhammer, TeraTonics, France</li> <li>• Influence of compression behavior on skin formation in thermoplastic structural foams manufactured in a hot press process by Maximilian Salmins, Leibniz Institut, Germany</li> <li>• Analysis of the Fabrication and the Bending Strength of Bio-Based Sandwich Materials with Different Core Materials by Mathias Engelfried, Stuttgart University, Germany</li> </ul>	<p>Session chair: Henrik Schmutzler, Lufthansa Technik, Germany</p> <ul style="list-style-type: none"> <li>• Combined tensile and dynamic testing for the accurate measurement of mechanical properties of composite materials by Hugo Sol, Bytec, Belgium</li> <li>• Microplastic deformation behavior of epoxy resin by Janina Mittelhaus, TU Hamburg, Germany</li> <li>• Influence of the Boundary conditions on the low-velocity-impact behaviour of curved composites plates by Jannis Hüppauf, Leibniz Institut, Germany</li> <li>• Influence of processing parameters on matrix-dominated properties of CF/PEKK composites by Helena Pérez-Martin, University of Edinburgh, UK</li> <li>• Investigation into the mechanical and thermal properties of different powder epoxies for composites applications by Arun Alapati, University of Edinburgh, UK</li> </ul>

18.30 - 21.30 **Happy Hour & Network Diner in Handelskammer Hamburg** >>>>



8.00 - 8.30  
8.30 - 10.00

Registration  
Session 4 - 5 talks

Room 1 Börsensaal

SUSTAINABILITY & RECYCLING I

Session chair: Prof. Ralf Schledjewski, Montanuniversität Leoben, Austria

- Hygrothermal ageing and durability of bio-based composites and structures by Aart van Vuure, KU Leuven, Belgium
- Multi-level circular process chain for carbon and glass fibre composites by Christian Eitzinger, Profactor, Austria
- Influence of Additives on the Properties of Recycled Sheet Moulding Compound (SMC) by Vera Austermann, RWTH Aachen, Germany
- Microwave technology for energy-efficient heating and drying in composite production by Andreas Bündgens, RWTH Aachen, Germany
- Bio-based fiber-reinforced composites – an approach to decarbonize by Stephan Sprenger, Evonik, Germany

Room 2 Alber-Schäfer-Saal

CTC

Session chair: Marc Fette, CTC, Germany

- Lightweight production 4.0 - requirements from Airbus perspective to enable the future of connected manufacturing by Jan-Patrick Kalckhoff, Airbus, Germany
- An Artificial Intelligence Approach for Creating Automatic Semantic Device Descriptions for Brownfield Industrial Robots by Jonas Ehrhardt, Helmut-Schmidt-Universität Hamburg, Germany
- Impact of alignment of the sonotrode on the quality of thermoplastic composite joints in continuous ultrasonic welding by Maryam Ahanpanjeh, Helmut-Schmidt-Universität Hamburg, Germany
- Potentials and future applications for direct embedded sensor technology by using Additive Manufacturing by Marc Florian Meyer, Helmut-Schmidt-Universität Hamburg, Germany
- Automated stress-constrained manufacturing process for 3D Fiber Layup by Pezhman Pourabdollah, Airbus, Germany

Room 3 Elbe-Zimmer

SPORTS & LEISURE

Session chair: Hans Jürg Gysin, XYLOSH, Switzerland

- Dry fiber placement and sustainability for sporting goods by Joerg Kaufmann, TU Chemnitz, Germany
- Mechanical performances of innovative healable composites by Cohades Amaël, CompPair Technologies Ltd, Switzerland
- Moulding of thermoplastic nonwoven sheet materials in a vacuum membrane press. - Web Based Composites for sport and medical parts by Felix Teichmann, ITA Augsburg, Germany
- AFT, and How Does it Cut the Weight & Costs of Bike Components? by Hannes Schütte, 9TLabs, Switzerland

Room 4 Alster-Zimmer

JOINING & BONDING

Session chair: Henrik Schmutzler, Lufthansa Technik, Germany

- Susceptor Aided Induction Welding of UD Peek/Carbon Fiber Composites by Alfonso Maffezzoli, University of Salerno, Italy
- Continuous ultrasonic welding of carbon fiber reinforced thermoplastic thin plies by Saber Maamri, University of Salamanca, Spain
- Robust Assembly - Quality Assured Welding Technologies for Full-Scale Applications by Manuel Endrass, DLR, Germany
- Analyzing of matrix hybrid composite joints by Tobias Karrasch, University Augsburg, Germany
- Implementation of the structural bonding process from the laboratory to the industrial application of aviation by Samir Abdul, Helmut-Schmidt-Universität, Germany

10.10 - 10.30  
10.30 - 12.10

Coffee Break  
Session 5 - 5 talks

Room 1 Börsensaal

SUSTAINABILITY & RECYCLING II

Session chair: Prof. Aart van Vuure, KU Leuven, Belgium

- Composites sustainability – Manufacturing, repair, and recycling are challenging by Ralf Schledjewski, Montanuniversität Leoben, Austria
- Effects of different environmental exposures on the properties of natural fibre reinforced biocomposites by Hom Dhakal, University of Portsmouth, UK
- Permeability, Compressibility and Relaxation Characteristics of Knitted Cellulose Regenerated Fibre Textiles by Marcel Bender, Montanuniversität Leoben, Austria
- Interfacial Characterisation of Natural Fibril/Polypropylene Composites Using Single Fibre Fragmentation Test (SFFT) by Ross Minty, University of Strathclyde, UK
- Mono-Material Sandwich Structures – An Overview by Sascha Kilian, Fraunhofer ICT, Germany

Room 2 Alber-Schäfer-Saal

THERMOPLASTICS IN AEROSPACE II

Session chair: Arnt Offringa, GKN Fokker, NL

- Assembly of the lower half of a Thermoplastic Multifunctional Fuselage Demonstrator by Gabriele Ridolfi, GKN Fokker Aerospace, NL and Abhas Choudhary, SAMIXL, NL
- Aircraft structural parts based on thermoplastic UD-tapes – A comprehensive processing approach including tape laying and injection overmolding using the example of an aircraft door outer skin by Mathias Muehlbacher, Neue Materialien Bayreuth, Germany
- Co-consolidation of metal-thermoplastic composite joints: analysis and optimisation of the interface by Vanessa Marinosci, TPRC, NL
- Innovating towards large scale Implementation of TPC's in Aerospace by Tjitse Slange, Toray Advanced Composites, UK
- Integrated solutions for large, complex stiffened thermoplastic composite structures by Peter Boer, Collins Aerospace, NL

Room 3 Elbe-Zimmer

CIVIL AND MARINE ENGINEERING

Session chair: Prof. Conchúr Ó Brádaigh, University of Edinburgh, UK

- Development and validation of a gravity independent inline impregnation method for multi-tow robotic coreless fiber winding by Marko Szesny, TU Stuttgart, Germany
- An Innovative Light-Weight FRP Composite Bridge Deck Panel by Dilum Fernando, University of Edinburgh, UK
- Exploration of composite materials application on noise mitigation systems by Duo Zou, Royal IHC, NL
- Coextruded Polymeric Bicomponent Fibers for Concrete Reinforcements by Jonas Herz, Rosenheim Technical University of Applied Sciences, Germany
- Investigation of Recyclable Acrylic Monomer Resins for Marine and Renewable Energy Composite Applications by Machar Devine, University of Edinburgh, UK

Room 4 Alster-Zimmer

TESTING, DESIGN & SIMULATION II

Session chair: Maria Dolores Vázquez-Navarro, SAMPE Ibérica, Spain

- Reduction of emissions by means of improved materials testing and exploitation on basis of a digital twin by Jan Seidel, Applus+ Laboratories and Jens Bold, Boeing Research and Technology Europe, Germany
- Estimation of the permeability tensor based on machine learning approach by David Droste, Faserinstitut Bremen, Germany
- Towards a three-dimensional compact model for non-planar geometries by Dennis Bublitz, TU München, Germany
- Simulation Based Forecast of Critical Quality Metrics for Thermoplastic Automated Fiber Placement by Lars Brandt, DLR, Germany
- A Novel Method to Obtain Smearred Properties of a Fiber-Matrix System Including Stress Concentration by Cihan Talebi, METU (Middle East Technical University) / Roketsan, Turkey

12.10 - 13.50  
12.15 - 14.00  
17.00 - 18.00

Lunch  
Plant Tours Leaving  
Plant Tours back at Handelskammer Hamburg

POSTER PRESENTATIONS

- Co-Consolidation of Tape-Preforms to realize local reinforcements in stamp-forming by Julian Weber, Leibniz Institut, Germany
- Investigation of high performance elastic textile reinforcements for drapability to fabricate doublecurved textile reinforced concrete (TRC) elements by Shantanu Bhat, RWTH Aachen, Germany
- Development of a Continuous Manufacturing Process for Wound Tubular Structural Elements Based on Thermoplastic Hybrid Yarns by Dominik Granich, RWTH Aachen, Germany
- Novel through-thickness reinforcement of foam-core sandwich composite panels by Mohamed Saleh, Technology Innovation Institute, United Arab Emirates
- Introducing Fibrarforce Technology – Revolutionizing the high-volume production of customized multi-axial thermoplastic cross-ply by Lars Linnemann, Fibraworks, Germany
- A comparative study on using BESO and SIMP to optimize the design of laminated carbon fiber reinforced plastics using topology optimization by Vinay Nagaraj, Leibniz Institut, Germany

- New Particle Foam Core for automated high volume mass Production of Sandwich Aerostructures by Alexander Roth, Evonik, Germany
- Sustainable compression-molded composites using recycled polyester carpets and bottling discards by Ranji Vaidyanathan, Oklahoma State University, USA
- Development of an Insert Connection for Sandwich Structures under Localised Load by Stefanie Zimmermann, Hochschule Mittweida, Germany
- Test setup investigations for faster FE-calibration via advanced measurement techniques by Christoph David, DLR, Germany
- 100% thermoplastic and recyclable sandwich panel for Aerospace by Thomas Poumadere, DIAB, Sweden
- Development of composites using waste mixed plastic and waste glass fibres for value-added products by Kit Orourke, University of Edinburgh, UK
- High barrier epoxy resin We developed epoxy resin for TypeV vessels that can retain gases well by Kousuke Ikeuchi, Mitsubishi Gas Chemical, Japan

- Modeling and simulation of the fabrication of glass/Elium® acrylic thermoplastic resin composites by the infusion process by Nihad Siddiq, IRT Jules Verne, France
- Variable Angle Composite Plate's Thermal Buckling Analysis by Fatih Baran, Istanbul Technical University, Turkey
- Aerodynamic high-pressure hydrogen CFRP vessels with increased storage energy density for green aviation: Novel design and dimensioning method by David Schlegel, Technische Universität Dresden, Germany

- Study on edge resin outflow during prepreg CFRP cure by Yusei Kondo, Mitsubishi Heavy Industries, Japan
- Induction welding of recycled UD tape compounds by Maarten Labordus, DAHER / KVE, France / Netherlands

The poster with the most votes wins

SCAN and VOTE for your favourite poster presentation(s)

There is a Delegates Award, to be selected by online voting, for the best poster presentation.

The prize for the lead author is an invitation to attend SAMPE Europe Summit 2023, Paris and a free ticket to JEC World 2023.

To vote, use the camera on your mobile, SCAN the QR code of your favourite posters.

You may vote for all the posters you like. Voting closes at 12.00 Hrs 17<sup>th</sup> November 2022.

37<sup>TH</sup> STUDENTS SEMINAR 2022

Jury 37<sup>th</sup> SE Students Seminar 22

Chairman  
Christian Weimer, SAMPE Germany

Vice Chairman  
Charlotte Salaun, SAMPE France

Members  
Adrie Kwakernaak, SAMPE Benelux  
Matthias Geistbeck, SAMPE Germany  
Markus Zogg, SAMPE Switzerland  
Carwyn Ward, SAMPE UK  
Jim Johnson, SAMPE USA  
Scott Beckwith, SAMPE Global

- Exploring biaxially oriented polypropylene laminates for suitcase application: a time-dependency analysis of mechanical performance by Arianna Tavano, KU Leuven, Belgium
- Evaluation of the mechanical performance of short straw flax fiber reinforced poly(lactic-acid (PLA) composites by Sofie Verstraete, KU Leuven, Belgium
- Viscoelastic material model for nanocomposite by Pradeep Ramanan, Tampere University, Finland
- Vitrimer composites for Aeronautics by Vincent Schenk, Université Toulouse III Paul Sabatier, France
- Damage modeling of plasma sprayed ceramics under dynamic stresses using a discrete/continuous multi-scale approach by Vincent Longchamp, Arts et Métiers Paritech, France

- Investigation of the frequency influence on the fatigue behaviour of short glass fibre reinforced plastics using quasi-isothermal tests by Daniel Fritsche, IKV - RWTH Aachen University, Germany
- Design and Modeling of the ceramic femoral component of knee prototypes by Anna Rita Terrizzi, University of Salento, Italy
- Inorganic matrix composite strengthening systems: bond behaviour and durability in alkaline environments by Giuseppe Bramato, University of Salento, Italy
- Working on the development of thermoset recyclable resins by Isaac Loreto Gomez, University Rey Juan Carlos, Spain
- Composites - CFRP for cryogenic application in LH2 tanks for commercial aircraft by Eduardo Gonzalo Miguel, University Carlos III, Spain

- Machine learning based data-driven automated fibre placement by Philip Druff, University of Bristol, UK
- Inter-ply friction in dry composite preforming by Guy Lawrence, University of Nottingham, UK
- Lightweight hip module for the "Enhanced Hybrid" exoskeleton by Luca Keller, IWK Ost, Switzerland
- 3D printing from phenoxy – filament production, process parameters and potential application by Delal Arslan, FHNW, Switzerland

SAMPE GERMANY INNOVATION AWARD 2022

- Extension of the Test Bench for the Investigation of the Fused Filament Fabrication of High-Performance Polymers by Margarita Etchegaray Bello, Technical University Munich, Germany

- Investigation of the frequency influence on the fatigue behaviour of short glass fibre reinforced plastics using quasi-isothermal tests by Daniel Fritsche, IKV - RWTH Aachen University, Germany

- Analysis of the influence of compaction during the Automated Fiber Placement process on the mechanical properties of composite laminates by Sylvester Vogl, Technical University Munich, Germany

MAIN SPONSOR CONFERENCE HAMBURG 2022: TEIJIN

EVENT SPONSOR: HITACHI Inspire the Next, Hitachi Energy, AIRBUS

PARTNERS 2022/2023: JEC GROUP, Fokker, TPRC, TEIJIN, AIRTECH, BOEING, LEICHTBAU, coexpair, Collins Aerospace, AIRBUS

STUDENT SEMINAR SPONSORS: JEC GROUP, AIRBUS, BOEING

TABLE TOPS HAMBURG 22: EVONIK, 9T LABS, BIONTEC, CEVOTEC, RON, AIRBORNE, DIA-STRON, RAMPF, SAMXL, COMPRISETEC, xylash, dataphysics, TORAY, Eddytec

MEDIA PARTNERS: ELEMENTS, CW CompositesWorld, ITHC, JEC COMPOSITES MAGAZINE