

TeXComp

9–11 September

2026

Bristol, UK

Draft Programme



University of
BRISTOL



**Bristol
Composites
Institute**

Welcome to



9-11 September

2026

Bristol, UK

Wednesday, 9 September 2026			
	Room 1	Room 2	Room 3
09:00	Welcome and Housekeeping		
09:20	Plenary 1		
10:00	Conference opening		
10:10	3D Textile Architecture: Process and Product		
11:10	Coffee		
11:40	3D Textile Architecture: Process and Product	Fatigue of Textile Composites	Life-cycle Assessment (LCA) and Sustainable Composites
13:00	Lunch		
14:00	Thermoplastic Textile Composites	3D Textile Architecture: Process and Product	
15:20	Coffee		
15:50	Thermoplastic Textile Composites		
17:10	Close and harbour boat tour		
18:30	Drinks Reception, Harbour House, BS1 4RB		
Thursday, 10 September 2026			
	Room 1	Room 2	Room 3
09:00	Plenary 2		
09:40	Braided Composites		
11:00	Coffee		
11:30	Experimental Characterisation of Textile Reinforcements	Emerging Composite Processing Technologies	3D Textile Architecture: Process and Product
12:50	Lunch		
13:50	AI Applications in Textile Composites	Emerging Composite Processing Technologies	Special Technical Textile Products
15:30	Coffee		
16:00	Yarn and Fibre Scale Modelling		
17:40	Close		
19:00	Conference Dinner, aboard SS Great Britain, BS1 6TY		
Friday, 11 September 2026			
	Room 1	Room 2	Room 3
09:00	Plenary 3		
09:40	Yarn and Fibre Scale Modelling	Manufacturing of Textile Preforms	Experimental Characterisation of Textile Reinforcements
11:00	Coffee		
11:40	Manufacturing of Textile Preforms	Yarn and Fibre Scale Modelling	
13:20	Closing remarks		
13:30	Lunch		
14:30	End of TexComp-2026		

Wednesday, 9 September 2026			
	Room 1	Room 2	Room 3
09:00	Welcome and Housekeeping		
09:20	Plenary: Industrial applications and challenges for textile composites at Short Brothers – A Boeing Company Oran Walsh, Principal Composite Specialist, Short Brothers, A Boeing Company		
10:00	Conference opening Guy Poppy, Pro-Vice Chancellor for Research, University of Bristol		
10:10	3D Textile Architecture: Process and Product		
10:10	Simulation-calibrated analytical method for failure load prediction in 3D woven composite L-sections Nikolay Timoshchuk (Albany Engineered Composites Inc.) Farrokh Sheibani, Rabih Mansour, Mike Bilynsky, Kent Kasper		
10:30	Toward a comprehensive and efficient structural definition of 3D warp-interlock woven fabrics for enhanced design Francois Boussu (Univ Lille - ENSAIT) Mulat Alubel Abtew, Irina Cristian, Saad Nauman		
10:50	Manufacturing of textile-based composite structures for high-rate aerospace applications – an industrial framework Sarthak Mahapatra (Carbon ThreeSixty) Gonçalo Valente, Callum Tooley, Andy Smith		
11:10	Coffee		
11:40	3D Textile Architecture: Process and Product	Fatigue of Textile Composites	Life-cycle Assessment (LCA) and Sustainable Composites
11:40	A simplified image based analysis of 3D woven composites with binder architectures Prasad Potluri (University of Manchester) Yeshas Kuntamalla, Kazi Sowrov, Rehan Umer, Philip James Withers	Fatigue life prevision model for a 3D woven PMC based on the non-linear cyclic behavior at a meso-scale Loick Saisset (Safran Aircraft Engines, ONERA) Jean Benezech, Jean-Francois Maire, Lionel Marcin, Francois Rasselet	LCI/LCIA of carbon fibres: an update... and a breakthrough. Ignaas Verpoest (KU Leuven)
12:00	Cantilever bending of tapered 3D woven composites: experimental investigation and mesoscale mechanical modelling Joseph Humphries (University of Nottingham) Nicholas Warrior, Louise Brown, Mikhail Matveev	Physics-informed machine learning for fatigue delamination with fibre bridging retardation in composites Liaojun Yao (Harbin Institute of Technology) Jiexiong Wang, Stepan V. Lomov, Valter Carvelli	Dynamic modelling of emissions, mass flows, and capex in the carbon fiber industry in the transition to net-zero 2050 Martyn Wakeman (EPFL) Fatumah Binta Sakho Doukouré, Reyhaneh Ramezani, Karl Schmedders, Veronique Michaud
12:20	Large compression response of re-entrant 3D woven thermoplastic auxetic composites Bastien Turbot (ENSAIT (École Nationale Supérieure des Arts et Industries Textiles)) François Rault, François Boussu	A neural network for fatigue life prediction of textile composites Valter Carvelli (Politecnico di Milano) Shain Azadi	Natural fibers for composites: limitations and improvements Emmanuel De Luycker (University of Technology Tarbes Occitanie Pyrénées) Alexandre Lacerda, Jean Cabalé, Léo-Paul Legrand, Pierre Ouagne
12:40	Numerical modelling of woven 3D PET textiles Arne Deconinck (KU Leuven) Stepan Lomov, Frederik Desplentere	Fatigue damage of textile cord–elastomer composites under compression–tension loading Gianluca Auteri (LMPS CentraleSupelec, MFP Michelin) Jan Neggers, Damien Durville, Olivier Alquier, Simon Nuytten	Revitalizing flax as a sustainable alternative to fossil-based fibers Tiia Plamus (Tallinn University of Technology)
13:00	Lunch		

Wednesday, 9 September 2026 - PM			
	Room 1	Room 2	Room 3
14:00	Thermoplastic Textile Composites	3D Textile Architecture: Process and Product	
14:00	Network analysis of electric conductivity measurements Remko Akkerman (University of Twente) Martin Luckabauer, Wouter Grouve	Elasto-plastic analysis of shear-out failure in bolted joints of 3D woven carbon fiber-reinforced polymer composites Farrokh Sheibani (Albany Engineered Composite) Nikolay Timoshchuk, Rabih Mansour, Kent Kasper	
14:20	Development of thermoplastic multi-matrix composites with adjustable stiffness gradients Philipp Brückner (Institute of Textile Machinery and High Performance Material Technology, TU Dresden) Matthias Overberg, Morgan Renard, Christina Scheffler, Axel Spickenheuer	Lightning strike testing of 3D woven composite materials Francois Charleux (Safran Aircraft Engines) Matteo Minervino	
14:40	Fatigue behavior of woven fabric reinforced thermoplastic composite flexures subjected to large deformations Laurent Warnet (University of Twente) Sam Benou, Ramona Sitohang, Remko Akkerman	Yarn degradation during weaving: post-motion interactions impact Julie Walther (Haute Alsace University (UHA), Textile Physics and Mechanics Laboratory (LPMT)) Mathieu Decrette, Jean-François Osselin	
15:00	Mechanical performance of composites reinforced with zero-twist hybrid yarns from recycled carbon fibre Mir Mohammad Badrul Hasan (Institute of Textile Machinery and High Performance Material Technology (ITM), TU Dresden) Anwar Abdkader, Chokri Cherif	Influence of the 3D weaving process on the degradation of para-aramid yarn Lucas Roelofs (University of Lille, Gemtex) Rémi Thiry, François Boussu	
15:20	Coffee		
15:50	Thermoplastic Textile Composites		
15:50	Structural architecture and thermal bonding design in recycled-fibre nonwovens Katre Worth (Tallinn University of Technology) Tiia Plamus, Jüri Majak		
16:10	3D-printed bio-based textile composites for resource optimisation and enhanced textile durability Aida Fadakarsarkandi (University of Birmingham)		
16:30	Self-reinforced PLA woven reinforced thermoplastic biocomposites Baptiste Dutailly (ENSAIT/GEMTEX – University of Lille) Jordan Beauvois, François Boussu, Fanny Bonnet, Aurélie Cayla		
17:00	Close and harbour boat tour		
18:30	Drinks Reception, Harbour House, BS1 4RB		

Thursday, 10 September 2026			
	Room 1	Room 2	Room 3
09:00	Pleinary: Advancing the Future of Healthcare through Electronic Textile Innovation Kai Yang, Professor of E-Textiles in Healthcare, University of Southampton		
09:40	Braided Composites		
09:40	Demonstration customizable 3D braiding structures using a radial braider based on the chain and sprocket design Louis Laberge Lebel (Polytechnique Montreal) Clara Grandisson Arseneault		
10:00	Acquisition of pressure and strain maps during uniaxial compression of a three-dimensional sealing braid Alexis Labrouve (LAMé : Université d'Orléans / LATTY INTERNATIONAL) Jean Gillibert, Audrey Hivet, Mohand Adjemout, Gilles Hivet		
10:20	Material development of CF/PPS commingled fibre for the braiding manufacturing process Beth Grimes (NCC) Susie Morton		
10:40	Simulation of overbraided products at different level of fidelity Yordan Kyosev (Institute of Textile Machinery and High Performance Material Technology (ITM), TU Dresden) Anselm Naake		
11:00	Coffee		
11:30	Experimental Characterisation of Textile Reinforcements	Emerging Composite Processing Technologies	3D Textile Architecture: Process and Product
11:30	Measurement of recycled carbon fibre web characteristics by image analysis Vasco Fernandez (Institut Clément Ader) Florentin Berthet, Thierry Cutard, Quentin Govignon	Design and validation of passively functionalized shell composite structures manufactured by tailored fiber placement process Peng Yu (IRD, Bretagne INP) Jessy Simon, Christophe Binetruy, Nahiene Hamila	Study on tension-driven deformation compensation for flexible oriented three-dimensional woven composite preforms Hao Huang (Beijing Institute of Technology) Dong Wang, Jianhua Liu, Haowei Zhang
11:50	Full-field experimental characterization and multi-scale digital twin of a 3D woven composite fan blade specimen Florent Mathieu (EikoSim) Julien Schneider-Die Gross, Guillaume Fourier, Bastien Deroin, Alex Chang	Interlaminar toughening of carbon fibre/epoxy laminates using asphaltene-based carbon nanofibre interleaves Yasmine Abidin (University of British Columbia) Shengnan Yan, Rachel Cummings, Mijung Cho, Scott Rennecker	Geometric scaling as means of enabling the design of 3D woven composites Elena Sitnikova (University of Southampton)
12:10	Manufacturing and material characterisation of pre-sheared 2D woven CFRP Meng Yi Song (University of Bristol) Bassam El Said, Stephen Hallett	FEM-MPS multiscale analysis of fiber orientation in injection-molded short-fiber reinforced thermoplastics Masahiro Yonekura (The University of Osaka) Naoyuki Inoue, Fumikazu Miyasaka, Tetsusei Kurashiki, Kazutaka Mukoyama	Advanced auxetic composite materials behaviour under different tensile strain speeds for aeronautical applications Anne-Charlotte Eniscourt (ONERA/ENSAIT) François Rault, Eric Deletombe, François Boussu
12:30	Development and characterization of recycled carbon fiber webs and rovings for composite reinforcements Alexia Reynet (GEMTEX) Jean Ivars, Ahmad Rashed Labanieh, Damien Soulat	Regenerated cellulose fibres from all-cellulose composites Sophie Fields (University of Leeds) Mike Ries, Ningtao Mao	Design of sandwich panel cores as a periodic network of tufted threads Xavier Legrand (ENSAIT) David Crepin
12:50	Lunch		

Thursday, 10 September 2026 - PM			
	Room 1	Room 2	Room 3
13:50	AI Applications in Textile Composites	Emerging Composite Processing Technologies	Special Technical Textile Products
13:50	A LSTM-FEA integrated approach to predict curing-induced deformation in woven thermoset composite Weizhao Zhang (The Chinese University of Hong Kong) Meiyu Liu	Enhanced resistance welding of thermoset composites via preconsolidated heating elements Ziyue Wei (University of Bath) Thomas Maierhofer, Evripides G. Loukaides, Richard Butler, Fulvio Pinto	Influence of constriction on the load-bearing capacity of bury splices of braided synthetic ropes Lucie Mathieu (ENSTA - IFPEN) Maxime Pelerin, Michel Castagné, Yoan Chevillotte, Yann Marco
14:10	A physics-enhanced deep learning framework for fabric deformation and stress prediction in preform forming Tianyu Lu (Zhejiang Sci-Tech University) Zhenyu Wu, Chaofan Wang, Lin Shi	Continuous carbon fiber placement with low-power infrared heating on curved surfaces: feedrate optimization based on transient thermal modeling Zikang Shi (University of Manchester) Michael Petty, Tao Liu, Charlie Wang	Self-sensing ZnO nanowire-enhanced textile composites for structural health monitoring Qihang Wang (University of Leeds) Ali Alazmani, Robert Kay, Yu Shi, Mingwen Bai
14:30	From imaging to simulation: automated X-ray CT-driven mesoscale modeling of as-manufactured textile composites Martin Fagerström (Chalmers University of Technology) Johan Friemann, Carolyn Oddy, Lars P. Mikkelsen	Development of a model to predict the breakage of carbon fiber in the compounding process using a twin-screw extruder Miyabi Kotouge (Doshisha University) Tatsuya Tanaka, Masahiro Sasada, Takeshi Ishikawa	Sustainable fiber-reinforced composites for high-performance drone components Tsegaye Lemmi (Lodz University of Technology) Marcin Barburski
14:50	Adaptive resin infusion control using deep reinforcement learning: numerical and experimental development Simone Bancora (NCC) Kieran Guiote, Jonathan Belnoue, Tim Newman, Paris Mulye	Mechanical properties of carbon fiber composite honeycomb fabricated by fold-cutting method Jian Xiong (Harbin Institute of Technology)	Low-cost precursors for carbon fiber: breakdowns and breakthroughs Scott Rennecker (University of British Columbia) Muzaffer Karaaslan, Mijung Cho, Zhixin Huang, Yasmine Abdin
15:10	Full-field resin infusion reconstruction using gaussian process surrogate models on sparse sensor data Kieran Guoite (University of Bristol) Chris Dighton, Ole Thomsen, Jonathan Belnoue		Design and modelling of woven flax/bio-epoxy textile composite laminates for bridge decks Ronald Mwesigwa (University of Bristol) Stephen Eichhorn, Neha Chandarana, Eleni Toumpanaki
15:30	Coffee		
15:50	Yarn and Fibre Scale Modelling		
15:50	TexGen – 20 years of open-source development Mikhail Matveev (University of Nottingham) Joseph Humphries, Louise Brown		
16:10	SimTex: textile manufacturing simulation at scale Michael Pei (University of Bristol) Jonathan P-H Belnoue, Stephen Hallett		
16:30	Fibre-scale analyses of multi-layer woven carbon-fibre reinforcements using numerical and experimental methods Thomas Gereke (Institute of Textile Machinery and High Performance Material Technology, TU Dresden) Cornelia Sennewald, Johannes Mersch, Chokri Cherif		
16:50	A mesoscale embedded-fibre approach for modelling the non-linear behaviour in woven ceramic-matrix composites Guillaume Couégnat (CNRS, Laboratoire des Composites Thermostructuraux) Anthony Vassalié, Corentin Le Bras, Sébastien Denneulin		
17:30	Close		
19:00	Conference Dinner, aboard SS Great Britain, BS1 6TY		

Friday, 11 September 2026			
	Room 1	Room 2	Room 3
09:00	Pleenary: "A History of Textile Composites" Stepan Lomov, Emeritus Professor, KU Leuven		
09:40	Short break to move rooms		
09:50	Yarn and Fibre Scale Modelling	Manufacturing of Textile Preforms	Experimental Characterisation of Textile Reinforcements
09:50	Finite element analysis of low-velocity impact (LVI) damage in bio-inspired helicoidal CFRP laminates for thin- and thick-wall structures Hongyan Wang (Imperial College London) Erfan Kazemi, Andrea Passariello, Lorenzo Mencattelli, Oran Walsh, Silvestre Pinho	Development of nonwoven composites from mechanically recycled textile fibres Md Toufiqur Rahman (Tallinn University of Technology) Tiia Plamus, Anti Rohumaa, Urve Kallavus	Multi-scale characterization of natural fibers for technical applications to flexible intermediate bulk containers (FIBCs) Kim Lê Giraud (GEMTEX-Génie et Matériaux Textiles) Manuela Ferreira, Romain Benkirane, Ahmad Rashed Labanieh, Damien Soulat
10:10	A stepwise secant cohesive law for efficient representation of matrix damage in fiber-reinforced composites Marcus Welsh (Institut für Textiltechnik of RWTH Aachen) Brett Bednarczyk, Evan J. Pineda, Kumar C. Jois	Enabling high-rate aerospace composite manufacturing through optimised dry fibre preform stabilisation Callum Tooley (Advanced Manufacturing Research Centre - University of Sheffield) Thomas Saxby, Oliver Hayes, Jody Turner	Exploring the multifunctional properties of flax fiber/hollow glass microsphere reinforced polyurethane composites Dehenenet Flatie Tassaw (Lodz University of Technology) Marcin Barburski
10:30	Theoretical-numerical integrated multi-scale model for fast prediction of impact damage in textile composites Chao Zhang (Northwestern Polytechnical University) Bowen Wu, Hao Yuan Dang, Zhenqiang Zhao	Establishing defect classification criteria for wet-laid rCF nonwovens through multimodal inline sensing Catherine Yokan (National Manufacturing Institute Scotland) Sairah Bashir, Andrew Hamilton, Don Pieris	On the impact strength of pineapple fiber reinforced polypropylene Shunsuke Nakatani (University of Doshisha) Tatsuya Tanaka, Masahiro Sasada
10:50	Rotation-free shell element for forming simulation in SimTex using mixed timestep integration Yuncong Feng (University of Bristol) Michael Pei, Stephen Hallett, Jonathan Belnoue	Effect of binder state on deformation and defect formation during preforming of unidirectional non-crimp fabrics John Montesano (University of Waterloo) Zohreh Mohammadi	Passive visual strain sensing in woven glass fibre composites Sakineh Fotouhi (University of the West of England) Oguzhan Kilinc, Fahad Mohammed
11:10	Coffee		
11:40	Manufacturing of Textile Preforms	Yarn and Fibre Scale Modelling	
11:40	Full field quantitative correlation of out of plane defects in virtual and experimental composite ply forming data Lachlan Williams (Airbus Operations UK) Adam Thompson, Stephen Hallett, Jonathan Belnoue, Sjoerd Van Der Veen	High-fidelity image based meso-scale modelling of 3D woven composite Jean Bénézech (DMAS, ONERA, Paris-Saclay University) Guillaume Couégnat, Loïck Saisset, Jean-François Maire	
12:00	Comparative study on bending stiffness and drapability of coated carbon textile reinforcements for architectural textile reinforced concrete elements Shantanu Bhat (Institut für Textiltechnik of RWTH Aachen University) Umid Bäuerle, Thomas Gries	Improving the simulation accuracy and efficiency of coreless filament winding process with simtex Hao Yuan (University of Bristol) Yuncong Feng, Sebastian Hügler, Peter Middendorf, Jonathan P.-H. Belnoue	
12:20	A solid-shell FE for forming simulation of multi-ply dry textile materials Olivier Polit (Laboratoire Energétique Mécanique Electromagnétisme (LEME), Université Paris-Nanterre) Bruno Ribeiro Cotrim, Michele D'Ottavio, Philippe Vidal, Emmanuel Valot	A fully virtual pipeline for textile permeability predictions Jonathan Belnoue (University of Bristol) Ryan Chung, Tomasz Garstka, Stephen Hallett	
12:40	Fast and accurate forming simulation of unidirectional non-crimp fabrics using a new kinematic approach Peter Hede Broberg (Aalborg University) Christian Krogh, Bastian Schäfer, Jan Paul Wank, Luise Kärger, Brian Bak, Esben Lindgaard	Experimental and numerical characterisation of 5-harness satin weave composites with void defects using ANN and Monte Carlo simulation Nagappa Siddgonde (Indian Institute of Technology Madras) Anup Ghosh	
13:00	SWaT - Systematically Weaving a digital Thread into composite parts Callum Tooley (Advanced Manufacturing Research Centre - University of Sheffield) Jody Turner, Asimina Manta, Kevin Kerrigan, Thomas Saxby	Modeling of the mechanical response of polymer mooring ropes to investigate the construction effects Tom Armand (ENSTA, Institut Polytechnique de Paris, Bretagne INP, Univ. Brest) Guilhem Bles, Matthieu Le Saux, Yann Marco	
13:20	Closing remarks		
13:30	Lunch		
14:30	End of TexComp-2026		

Scientific Committee

Suresh Advani, University of Delaware, USA

Remko Akkerman, University of Twente, Netherlands

Edward Archer, Ulster University, UK

Marcin Barburski, TU Lodz, Poland

Christophe Binetruy, Centrale Nantes / Nantes Université, France

Francois Boussu, ENSAIT, France

Valter Carvelli, Politecnico di Milano, Italy

Francois Charleux, SAFRAN, France

Christoph Greb, RWTH Aachen University, Germany

Nahiene Hamila, Dupuy De Lôme Research Institute, France

Lee Harper, Nottingham University, UK

Luise Kärger, Karlsruhe Institute of Technology, Germany

Tetsusei Kurashiki, Osaka University, Japan

Yordan Kyosev, TU Dresden, Germany

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John Montesano, University of Waterloo, Canada

Asami Nakai, Gifu University, Japan

Prasad Potluri, University of Manchester, UK

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Weizhao Zhang, Chinese University of Hong Kong, China

