

# BRISTOL COMPOSITES INSTITUTE PGR SYMPOSIUM

Tuesday 08 April 2025  
Arts Complex, University of Bristol  
3-5 Woodland Road, Bristol, BS8 1TB

08:45      Registration and poster session  
Tea, coffee and pastries

09:30      Welcome, Professor Ole Thomsen  
Bristol Composites Institute Co-director

09:40      Session 1 – Chair, Dr Joe Soltan

 Keynote speaker: Dr Laura Veldenz, Airborne

*From Lab coat to Laptop - surviving the leap from doctorate to professional*

 Technical presentations on current PhD research:

- *Mycelium composites: A sustainable construction material?* - Stefania Akromah  
Supervisors: Professor Steve Eichhorn, Dr Neha Chandarana
- *Maximising the performance potential of continuous recycled carbon fibre* - Jenny Banks  
Supervisors: Professor Steve Eichhorn, Dr Jemma Rowlandson  
Industry supervisors: Kyle Pender, Tim Young
- *A pathway to circularity in composite manufacturing: targeting high impact consumables* - Erica Barnes  
Supervisors: Dr Karthik Ram Ramakrishnan, Professor Ian Hamerton  
Industry supervisor: Ffion Rodes
- *Hygrothermal effects of saline and alkaline environments on composite materials* - Asaad Biqai  
Supervisors: Dr Eleni Toumpanaki, Professor Ian Hamerton, Dr Manjola Caro
- *Wind blade design for disassembly* - Tom Brereton  
Supervisors: Professor Paul Weaver, Professor Alberto Pirrera, Dr Terence Macquart  
Industry supervisor: Merve Ece Yigit

11:00      Tea and coffee break



## 11:30 Session 2 – Chair, Dr Beth Grimes

### Technical presentations on current PhD research:

- *Finite element analysis of the effect of delamination on carbon fibre composites impact failure mode* - An Chen  
Supervisors: Professor Michael Wisnom, Dr Luiz Kawashita, Dr Xun Wu, Dr Jagan Selvaraj
- *Impact of the manufacturing process on the design of overbraided carbon fibre rods* - Nicolas Darras  
Supervisors: Professor Richard Trask, Dr Laura Pickard
- *Towards smarter wind turbine blade production with advanced sensing and real-time modelling* - Jack Davies  
Supervisors: Dr Dmitry Ivanov, Professor Janice Barton  
Industry supervisor: Peter Giddings
- *Investigation into testing approaches for material characterisation of filament-wound components for hydrogen storage* - Jordan Forbes-Thomas  
Supervisors: Dr Neha Chandarana, Professor Janice Barton  
Industry supervisor: Marcus Walls-Bruck
- *Matrix microcracking in cryogenic environments* - James Griffith  
Supervisors: Professor Ian Hamerton, Professor Valeska Ting, Dr Karthik Ram Ramakrishnan, Dr Sebastien Rochet  
Industry supervisor: Marcus Walls-Bruck
- *A qualitative and quantitative benchmarking review of resin infusion simulation software* - Kieran Guoite  
Supervisors: Dr Jonathan Belnoue, Professor Ole Thomsen  
Industry supervisor: Chris Dighton

## 12:30 Session 3 – Chair, Dr Ali Kandemir

### Quickfire presentations on current PhD research:

- *The automated control of process parameters in the first-ply AFP deposition* - Ege Arabul
- *Virtual platform for porosity prediction in thermoplastic AFP deposition* - Kaan Deniz
- *Investigating size effects on acoustic emission in composite sheets* - Ana Beatriz Quelhas O. e Moreira
- *Laminate hybridization using high modulus thin plies to improve composite compressive performance* - Joe Rifai
- *Optimisation of multi-rotor wind turbines for reduced environmental impact and cost of energy* - Abdirahman Sheik Hassan
- *Thermo-mechanical and environmental degradation of ceramic matrix composites at the micro-scale* - Cyril Varghese Thankachen
- *4D Printing for fibre-reinforced composites structures* - Erdem Yildiz

13:00      Buffet lunch and poster session

14:00      Session 4 – Chair, Dr Ali Kandemir

 Keynote speaker: Dr Konstantina Kanari, National Composites Centre

*From Research to Real-World Impact: Navigating my post-PhD journey*

 Technical presentations on current PhD research:

- *Behaviour of ceramic coatings on polymer composites against laser exposure* - George Holiday  
Supervisors: Professor Richard Trask, Professor Ian Hamerton  
Industry supervisors: Sean Cooper, Konstantina Kanari
- *Highly aligned discontinuous fibre composites in compression* - Ian Lee  
Supervisors: Professor Giuliano Allegri, Dr Laura Pickard, Professor Ian Hamerton, Dr Marco Longana
- *The use of polarisation for high-rate defect detection* - Matt Miller  
Supervisors: Dr Byung Kim, Dr Iryna Tretiak  
Industry supervisors: Chris Dighton, Toby Fry
- *Origami-inspired design for manufacture of curved composite structures* - Sutharsanan Navaratnarajah  
Supervisors: Dr Mark Schenk, Dr James Kratz

Comfort break

- *Fatigue and damage tolerance of 3D woven composites* - Christian Stewart  
Supervisors: Professor Stephen Hallett, Dr Bassam Elsaied
- *Creation of 'over-moulded' PEEK samples for interface bond strength predictions* - Maria Veyrat Cruz-Guzman  
Supervisors: Dmitry Ivanov, Jonathan Belnoue, Professor Steve Eichhorn  
Industry supervisor: James Myers
- *Thermal characterisation of actively cooled CFRPs via embedded channel networks* - Toby Wilcox  
Supervisors: Professor Richard Trask, Professor Benjamin King Sutton Woods, Professor Julian Booker, Dr Ian Farrow  
Industry supervisor: Florent DeHaeze
- *Modal nudging and elastic tailoring for blade stiffened wing structures* - Lichang Zhu  
Supervisors: Professor Alberto Pirrera, Dr Rainer Groh, Professor Mark Schenk, Dr Jiajia Shen

16:00      Tea and coffee break

## 16:20 Industry-led panel discussion

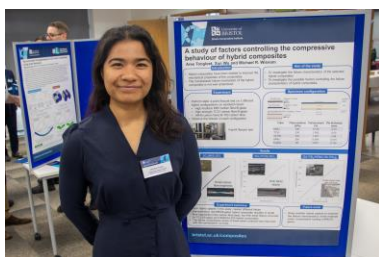
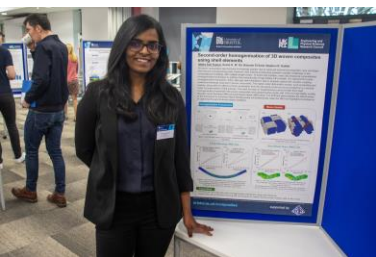
 Panel Chair: Dr Faye Smith, Director of Avalon Consultancy Services and Honorary Industrial Professor at the University of Bristol

*Filling the skills gap: professional development of doctoral students*

### Panellists:

- Professor Malin Akermo, Professor of Lightweight Structures at KTH University
- Dr Sayata Ghose, Technical Fellow at The Boeing Company
- Dr Konstantina Kanari, Advanced Research Engineer at the National Composites Centre
- Dr Jon Meegan, Research Fellow in Syensqo Composites Business Unit
- Dr Laura Veldenz, R&D Program Manager at Airborne

## 17:15 Close



Please be advised that photographs will be taken at this event, and that these photographs may be used on the University website, and in University publications, including matters relating to the University's marketing and editorial functions.