

THE 14th CANADIAN- INTERNATIONAL CONFERENCE ON COMPOSITES

AUGUST 10-13, 2026

THE UNIVERSITY OF BRITISH COLUMBIA
VANCOUVER, CANADA



WELCOME



We are delighted to welcome you to the **14th Canadian-International Conference on Composites (CANCOM-2026)**, held at the University of British Columbia in beautiful Vancouver, Canada. CANCOM is the flagship conference of the Canadian Association for Composite Structures and Materials (CAC SMA), a national organization dedicated to advancing research, education, and industrial collaboration in composite materials and structures throughout Canada.

This year's conference brings together researchers, industry professionals, and students from Canada, U.S.A., Germany, Italy, U.K., Japan, Mexico, China, Hungary, France, Taiwan, Saudi Arabia, Israel, Poland, Qatar, Belgium, Australia, India and Luxembourg to share advances in composite materials, manufacturing, mechanics, characterization, and emerging applications. Through technical presentations, keynote lectures, and discussions, we hope to foster new collaborations, exchange ideas, and strengthen the composites community.

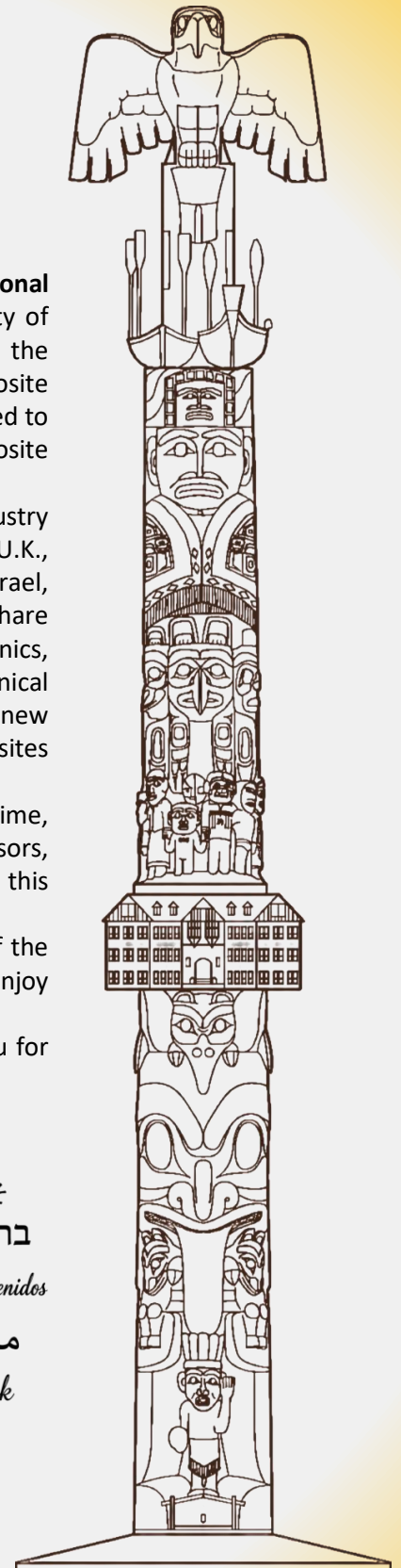
We thank all authors and participants for contributing their time, expertise, and enthusiasm. We are also grateful to our sponsors, volunteers, and committee members, whose support has made this conference possible.

Beyond the technical program, we hope you will take advantage of the opportunities to meet colleagues, build new connections, and enjoy everything that Vancouver has to offer.

We wish you a productive and enjoyable conference and thank you for being part of CANCOM-2026!



Welcome ようこそ
Bienvenue ברוכים הבאים
Benvenuti Willkommen *Bienvenidos*
स्वागत 歡迎 مرحباً
Witamy Üdvözljük
Wellkomm خوش آمدید
Hoş geldiniz Ласкаво просимо



UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəy̓əm (Musqueam) people.

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John Montesano, *University of Waterloo*
François Robitaille, *University of Ottawa*
Daniel Therriault, *Polytechnique Montréal*
Joanna Wong, *University of Calgary*

Scientific Committee

For a full list of scientific committee members, please refer to:
<https://cancom2026.ca/scientific-committee/>

Internet Access:

- Connect to the “ubcvisitor” wireless network
- Open a web browser and click “connect”
- “eduroam” network is also accessible via the login credentials of certain educational institutions

MONDAY

AUGUST 10, 2026

Education Day

08:30 – 16:00 Registration | FSC Atrium

08:30 – 08:50 Opening Remarks | FSC 1005

09:00 – 10:20 Hands-on Lab Activities | Parallel tracks
Processing | FF 219
Analytical | BRIM 142
Mechanical Testing | FF 101
Workshops Track | FSC 1005

10:20 – 10:45 AM Coffee Break | FSC Atrium

10:45 – 12:00 Hands-on Lab Activities | Parallel tracks
Processing | FF 219
Analytical | BRIM 142
Mechanical Testing | FF 101
Workshop Track | FSC 1005

12:00 – 13:25 Lunch | Totem Dining Hall (Feast)

13:25 – 14:45 Hands-on Lab Activities | Parallel tracks
Processing | FF 219
Analytical | BRIM 142
Mechanical Testing | FF 101
Workshop Track | FSC 1005

14:45 – 15:00 PM Coffee Break | FSC Atrium

15:00 – 16:20 Workshop Track | FSC 1005

17:00 – 18:00 Student Contest | FF 101

TUESDAY

AUGUST 11, 2026

Technical Program

07:00 – 08:30 Breakfast | Totem Dining Hall (Feast)
Registration | FSC Atrium

08:30 – 09:30 Plenary Lecture | FSC 1005

09:30 – 10:30 AM Programming Block # 1 | Parallel sessions:
Experimental Methods | FSC 1001
Sustainable Technologies | FSC 1003
Materials & Manufacturing | FSC 1221
Automation | FSC 1611

10:30 – 10:50 AM Coffee Break | FSC Atrium

10:50 – 12:10 AM Programming Block # 2 | Parallel sessions:
Experimental Methods | FSC 1001
Sustainable Technologies | FSC 1003
Materials & Manufacturing | FSC 1221
Numerical Methods | FSC 1611

12:10 – 13:30 Lunch | Totem Dining Hall (Feast)

13:30 – 14:50 PM Programming Block # 1 | Parallel sessions:
Experimental Methods | FSC 1001
Sustainable Technologies | FSC 1003
Materials & Manufacturing | FSC 1221
Numerical Methods | FSC 1611

14:50 – 15:00 PM Coffee Break | FSC Atrium

15:00 – 16:20 PM Programming Block # 2 | Parallel sessions:
Experimental Methods | FSC 1001
Sustainable Technologies | FSC 1003
Materials & Manufacturing | FSC 1221
Numerical Methods | FSC 1611

16:20 – 16:50 General Networking | FSC Atrium
Display: Boeing 787 Horizontal Stabilizer and 777X Wing Panel (courtesy of the Composites Research Network) | Brimacombe Building Lobby

17:00 – 18:30 Welcome Reception | R.H. Lee Alumni Centre

WEDNESDAY

AUGUST 12, 2026
Technical Program

07:00 – 08:30 Breakfast | Totem Dining Hall (Feast)

08:30 – 09:30 Plenary Lecture | FSC 1005

09:30 – 10:30 AM Programming Block # 1 | Parallel sessions:
Experimental Methods | FSC 1001
Materials & Manufacturing | FSC 1003
AI & ML Methods | FSC 1221
Nondestructive Methods | FSC 1611

10:30 – 10:50 AM Coffee Break | FSC Atrium

10:50 – 12:10 AM Programming Block # 2 | Parallel sessions:
Experimental Methods | FSC 1001
Materials & Manufacturing | FSC 1003
AI & ML Methods | FSC 1221

12:10 – 13:30 Lunch | Totem Dining Hall (Feast)

13:30 – 15:10 PM Programming Block | Parallel sessions:
Numerical Methods | FSC 1001
Materials & Manufacturing | FSC 1003
Sustainable Technologies | FSC 1221

15:10 – 15:20 PM Coffee Break | FSC Atrium

15:20 – 16:45 EDI Workshop | FSC 1611

General Networking | FSC Atrium

18:30 – 21:00 Banquet | Brock House

THURSDAY

AUGUST 13, 2026
Technical Program

07:00 – 08:30 Breakfast | Totem Dining Hall (Feast)

08:30 – 09:30 Plenary Lecture | FSC 1005

09:30 – 10:30 AM Programming Block # 1 | Parallel sessions:
Materials & Manufacturing | FSC 1001/03
Nondestructive Methods | FSC 1221

10:30 – 10:50 AM Coffee Break | FSC Atrium

10:50 – 12:10 AM Programming Block # 2 | Parallel sessions:
Materials & Manufacturing | FSC 1001/03

12:10 – 13:30 Lunch | Totem Dining Hall (Feast)

CONFERENCE VENUE

UBC FOREST SCIENCES CENTRE

2424 Main Mall, Vancouver, BC V6T 1Z4

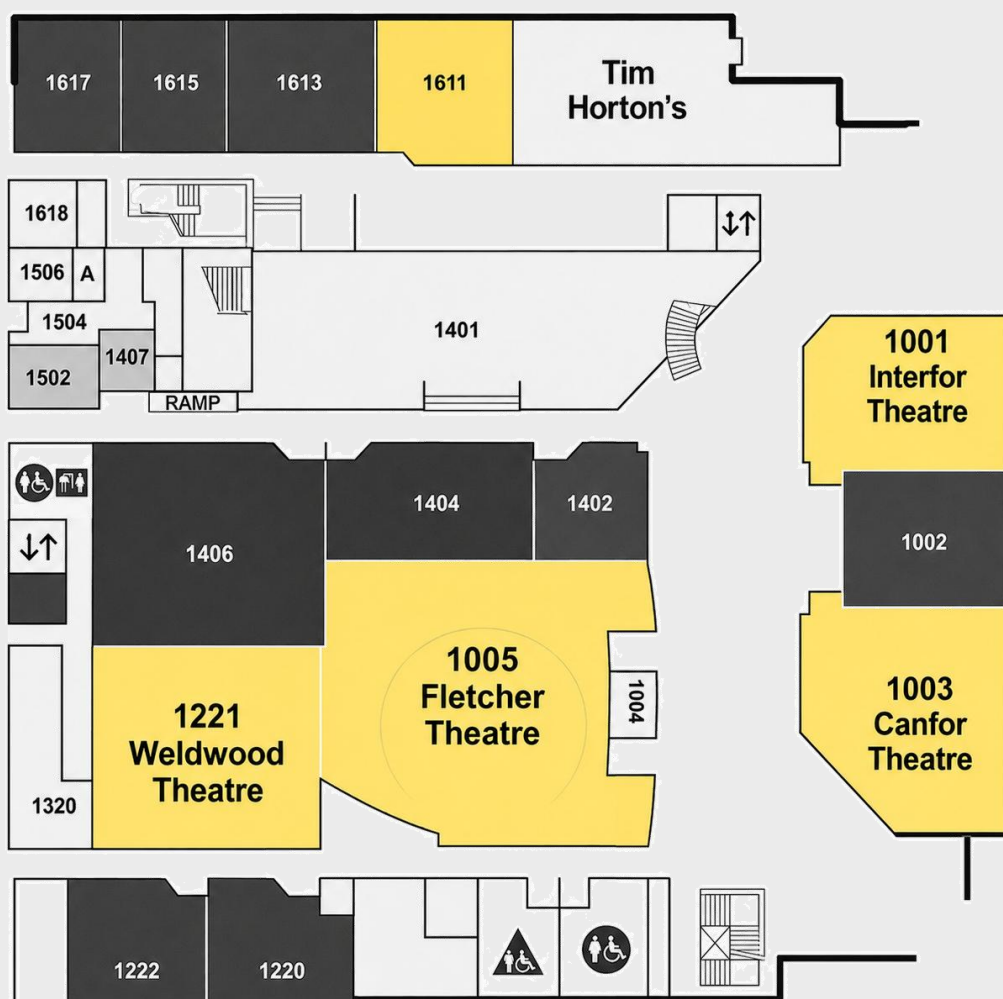


The technical program will take place in the **Forest Sciences Center (FSC)** building during Aug. 11th - 13th.

Plenary Lectures | Technical Sessions |
Room 1005 **Room 1001**
Room 1003
Room 1221
Room 1611



FSC Floor Plan:



Breakfast & Lunch

TOTEM DINING HALL / FEAST
 2525 West Mall, Vancouver,
 BC V6T 1Z4



Breakfast (7:00 – 9:00 a.m.) and lunch (11:30 a.m. – 1:30 p.m.) are provided for registered delegates at Feast Dining Hall and are served buffet-style. Please present your conference badge upon entry. Daily menus and dietary information, including allergen filters and translations in 51 languages, are available at ubc.nutrislice.com. Please note that re-entry during the same meal period is not allowed.

TUE / AUG. 11, 17:00 – 18:30

WELCOME RECEPTION

ROBERT H. LEE ALUMNI CENTRE
6163 University Blvd, Vancouver, BC V6T 1Z1


The CANCOM-2026 Welcome Reception will be held in the Jack Poole Hall on the 2nd floor of the Robert H. Lee Alumni Centre, on Tuesday August 11, 17:00 – 18:30.

The evening event gives attendees a chance to reconnect, meet new colleagues, and ease into the conference in an informal setting. Light refreshments will be served.

Robert H. Lee Alumni Centre is a 10-minute walk from the conference venue (UBC Forest Sciences Centre). Scan the QR code for walking directions in Google Maps.



WED / AUG. 12, 18:30 – 21:00

BANQUET

BROCK HOUSE
3875 Point Grey Rd Unit 2, Vancouver, BC V6R 1B3


The CANCOM-2026 banquet will take place at Brock House, a 1912 Tudor-Revival landmark overlooking Jericho Beach. The traditional banquet is where our community comes together, welcomes new members, and recognizes contributions across research, mentorship, and leadership. CACSMA will present its annual awards during the evening, including the Canada Composites Fellow, Timotei Centea Memorial Award for Best PhD Thesis, Best MSc Thesis Award, Undergraduate Awards, Mentorship Award, Leadership Award, and the Professor Suong V. Hoa Student Paper Awards.



Shuttle buses will depart from the UBC Forestry Sciences Centre to Brock House at 5:10 p.m., 5:20 p.m., 6:00 p.m., and 6:10 p.m. Upon arrival, delegates are invited to enjoy appetizers, explore the historic house and its waterfront setting, and network before dinner. Shuttle buses will return delegates to the UBC campus (Gage Suites) following the banquet.

MON / AUG.10, 8:30 – 18:00

EDUCATION DAY

Glossary

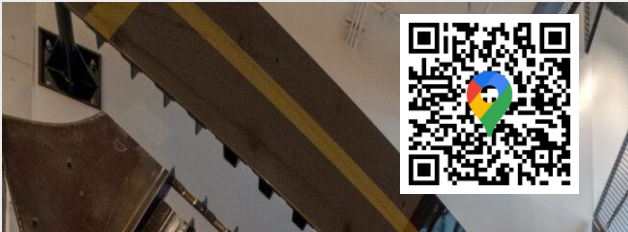
FSC 1005 = Forest Sciences Center, Room 1005
FF 101 = Frank Forward Building, Room 101
BRIM 142 = Brimacombe Building, Lab 142

08:30 – 16:00 Registration | FSC Atrium

08:30 – 08:50 Opening Remarks | FSC 1005

FSC 1005 Workshops		Hands-on Lab Activities		
09:00 – 10:20	Introduction to composites process simulation Paulo Silva, <i>Convergent Manufacturing Technologies</i>	Out-of-autoclave prepreg layup and curing FF 219	A demonstration of non-destructive inspection of composites BRIM 142	Tensile and compression testing FF 101
10:20 – 10:45 Coffee Break				
10:45 – 11:10	Knowledge management in composites Casey Keulen, <i>University of British Columbia</i>	A demonstration of resin transfer moulding FF 219	Glass Transition Temperature Measurement with DMA and DSC BRIM 142	In-plane shear testing FF 101
11:10 – 11:35	Beyond boundaries: Turning challenges into opportunities through CACSMA mentorship Lucy Li, <i>National Research Council Canada</i>			
11:35 – 12:00	Advances in mechanical testing Hannes Korber, <i>Zwick Roell</i>			
12:00 – 13:25 Lunch Totem Dining Hall (Feast) (see page 3 for directions)				
13:25 – 14:45	Forming natural fiber composites in the era of industry 4.0 Abbas Milani and Olivia Margoto, <i>Uni. of British Columbia</i>	An overview of the vacuum infusion process FF 219	A demonstration of non-destructive inspection of composites BRIM 142	Short beam shear and flexure testing FF 101
14:45 – 15:00 Coffee Break				
15:00 – 16:20	Artificial intelligence and the composites product lifecycle FSC 1005 Anoush Poursartip, <i>University of British Columbia</i> Navid Zobeiry, <i>University of Washington</i>			
17:00 – 18:00	Student Contest FF 101			





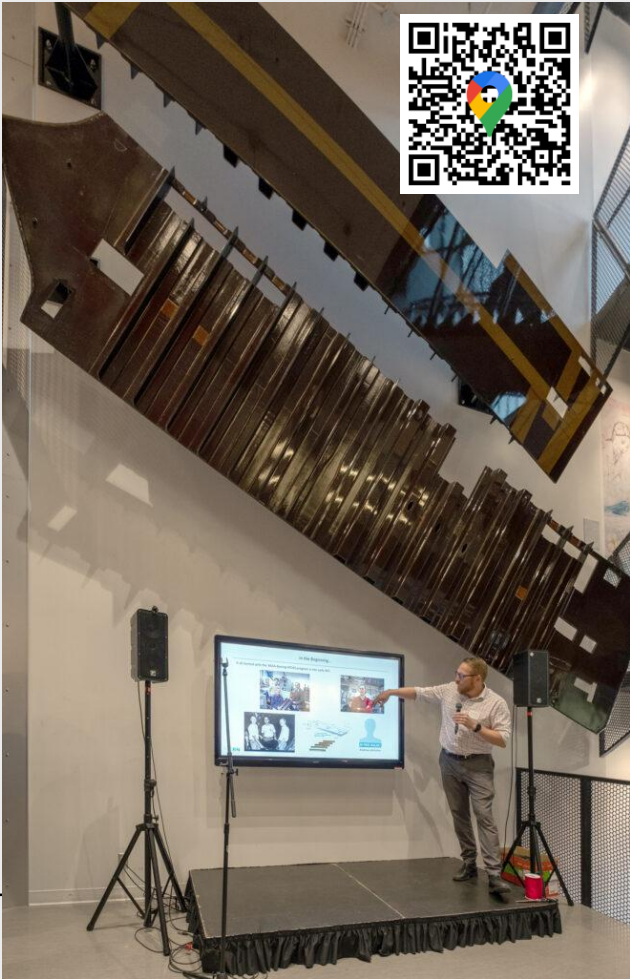
The SAMPE Canada–CKN–CANCOM Student Competition challenges students to design and build a miniature, lightweight 'habitat' using composite materials. Join us to watch student teams compete by testing their structures in a mechanical load frame.



Display | Boeing 787 Horizontal Stabilizer and 777X Wing Panel

The Brimacombe Building

Conference attendees are invited to come to the Brimacombe (AMPEL) building to view an installation of two unique donations from the Boeing Company: Boeing 777X wing skin test articles and a Boeing 787 horizontal stabilizer. These articles are a donation to the Composites Research Network (CRN) to commemorate the productive, on-going relationship between Boeing and The University of British Columbia that started in the mid 1990's. This is a rare opportunity to get up-close to these unique commercial aircraft parts.



PLENARY SPEAKERS



Prof. Pascal Hubert | *McGill University*

Director, Research Centre for High Performance Polymer and Composite Systems

Composites Processing Research: “Going with the Flow”

Prof. Hubert’s talk will explore how flow phenomena govern polymer composite manufacturing, linking experimental characterization and modelling across autoclave curing, vacuum bag-only, liquid molding, and discontinuous fiber processes.



Prof. Ole T. Thomsen | *University of Bristol*

Co-director, Bristol Composites Institute

National Composites Center Chair, Composites Design & Manufacture

Certification by Analysis of Large Composite Structures – Vision or Delusion?

Prof. Thomsen’s talk will explore the promise and the limits of simulation-driven validation: where multi-scale modeling, uncertainty quantification, and data-driven experimental design converge toward a new paradigm of certification by analysis.



Prof. Janice M. Dulieu-Barton | *University of Bristol*

Director, Centre in Doctoral Training in Innovation for Sustainable Composites Engineering

Director, Industrial Doctorate Centre in Composites Manufacture

Overcoming the Challenges to Utilize Full-Field Imaging and Data Fusion in Structural Analysis

Prof. Dulieu-Barton’s talk will demonstrate a multi-camera full-field imaging approach that enables the assessment large structures with complex geometries, utilizing the demonstration case of a wind turbine blade spar cap to web T-joint subcomponent.



Dr. Ali Yousefpour | *National Research Council of Canada*

Principal Research Officer

From Demonstration to Digital Integration of Composite Manufacturing Technologies

Dr. Yousefpour’s talk will trace how early experimental work on composite forming and automated fiber placement laid the groundwork for today’s pursuit of digitally-integrated, sensor-rich manufacturing processes.

TUESDAY | AM

AUGUST 11, 2026



08:30 – 08:40

Welcome remarks | **Room 1005** | **Dr. Peter Zandstra**, VP- Research and Innovation, *UBC*

08:40 – 09:30

CACSMA Fellow Keynote | **Room 1005**

Composites Processing Research: “Going with the flow” | **Prof. Pascal Hubert**, *McGill University*

09:30 – 10:30

AM Programming Block #1

Room 1001 | EXPERIMENTAL METHODS

Session chair: Irina Garces

09:30 – 09:50

Graph-theory-based quantification of electroconductive network interconnectivity in multilayer graphene/epoxy nanocomposites

Helbert Canché, *Centro de Investigación Científica de Yucatán* / ID #4

09:50 – 10:10

Prediction of crystallinity for large-scale additive manufacturing with complex temperature histories

Yannick Schäfer, *German Aerospace Centre* / ID #19

10:10 – 10:30

An experimental–numerical framework for evaluating the elastic properties of laminated papers

Samuel Hénault, *Université du Québec à Trois-Rivières* / ID #46

Room 1003 | SUSTAINABLE TECHNOLOGIES

Session chair: François Robitaille

Durability and mechanical performance of elastomeric membranes under thermal–humidity aging and mechanical stress

Ali Fazli, *CTT Group* / ID #10

Recycling wind turbine blades: a DSC perspective

Sara Simon, *NETZSCH* / ID #21

Enhancing permeability resistance of composite cryogenic hydrogen storage for sustainable aviation

Lucy Li, *National Research Council Canada* / ID #30

10:30 – 10:50

AM Coffee Break (20min)

10:50 – 12:10

AM Programming Block #2

Room 1001 | EXPERIMENTAL METHODS

Session chair: Irina Garces

10:50 – 11:10

Influence of crack-parallel tension on interlaminar fracture toughness of quasibrittle composites

Genki Matsubara, *University of Washington* / ID #51

11:10 – 11:30

Development of an in-situ monitoring 3D printer for digital twin in additive manufacturing

Cédric Courcoux, *Polytechnique Montréal* / ID #55

11:30 – 11:50

Experimental calibration and validation of a phase-field formulation for 3d-printed PEI-CF

E'ouann Kerino, *Polytechnique Montréal* / ID #56

11:50 – 12:10

Investigation into the fiber orientation of a 3D discontinuous fiber composite bracket representing a real-life application

Collins Davis, *University of Washington* / ID #60

Room 1003 | SUSTAINABLE TECHNOLOGIES

Session chair: Duncan Cree

Sustainable acoustic insulation: perforated recycled PET foam-honeycomb sandwich structure with improved half-absorption bandwidth

Srinath Ravichandran, *Concordia University* / ID #35

Design of flax fibre-reinforced PLA composites using microparticles: a strategy to improve interfacial bonding and dispersion

Fatemeh Rahimi, *University of Ottawa* / ID #36

The effect of treated filler and plasticizer on polylactic acid composite properties containing eggshell particles

Anahita Homavand, *University of Saskatchewan* / ID #43

Development of a recycled compression moulding compound for fast curing prepreg waste

Simon Golla, *McGill University* / ID #61

12:10 – 13:30

Lunch

CANCOM-2026
Conference Proceedings

Available online: www.cacsm.ca/proceedings/cancom-2026/
Scan the QR code to access the proceedings



AM Programming Block #1

09:30 – 10:30

Room 1221 | MATERIALS & MANUFACTURING

Session chair: Andrew Hrymak

Manufacturing and characterization of smart composite filaments for additive manufacturing

Luis Itzkuautli Mondragon, *Centro de Investigación Científica de Yucatán* / ID #5

Surface preparation methods for thermoplastic composite welding via the ThermabondTM Process

Julieta Barroeta Robles, *National Research Council Canada* / ID #9

Introduction and overview of CMH-17

Teresa Vohsen, *Wichita State University* / ID #11

Room 1611 | AUTOMATION

Session chair: Abbas Milani

Design and testing of a laser-induced graphene bending sensor array for localized wrinkle monitoring in textile reinforcements

Mohammad Amin Amindehghan, *The University of British Columbia* / ID #79

Thermoplastic composite tape spring hinge for space applications made by 4D printing

Suong Hoa, *Concordia University* / ID #99

The formation of automated fibre placement imperfections and their growth using a tabletop AFP simulator

Reece Haberstock, *The University of British Columbia* / ID #142

09:30 – 09:50

09:50 – 10:10

10:10 – 10:30

AM Programming Block #2

10:50 – 12:10

Room 1221 | MATERIALS & MANUFACTURING

Session chair: Andrew Hrymak

Innovative manufacturing: highlighting technology bricks for automated production of fiber-reinforced composites in helicopter structures

Christoph Frommel, *German Aerospace Center* / ID #33

PEDOT:PSS conductive polymer ink for functionalizing fabric reinforcements prior to forming

Nadia Abdollahi, *The University of British Columbia* / ID #42

Damage suppression in tow-based discontinuous composites under large deformation static indentation testing

Cameron Abercromby, *University of Bristol* / ID #45

Development of 3D-printed composite running blades for pediatric lower-limb prostheses

Owen Packham, *York University* / ID #48

Room 1611 | NUMERICAL METHODS

Session chair: Lucy Li

On the optimization of open truss interlaced composite structures featuring continuous yarns

François Robitaille, *University of Ottawa* / ID #13

Seismic strengthening of masonry infills in RC buildings using composite textile reinforced mortar

Stefano Sorace, *University of Udine* / ID #31

Analysis of interfacial stresses of 3D laminated composites by a regularized boundary integral equation

Yui-Chuin Shiah, *National Cheng Kung University* / ID #32

A symmetry-compatible rhombus mesh for continuum dislocation density simulations in FCC crystals

Alireza Kalaei, *The University of Hong Kong* / ID #153

10:50 – 11:10

11:10 – 11:30

11:30 – 11:50

11:50 – 12:10

TUESDAY | PM

AUGUST 11, 2026

13:30 – 14:50

PM Programming Block #1

Room 1001 | EXPERIMENTAL METHODS

Session chair: Suong Hoa

- 13:30 – 13:50** [Experimental characterization and numerical modeling of spatially distributed viscoelasticity in short-fiber-reinforced composite tensile-test specimens](#)
Eduard Klatt, *Helmut-Schmidt-University/ University of the Federal Armed Forces* | ID #68
- 13:50 – 14:10** [Optimizing composite promotion through design of experiments: full factorial and mixture design studies](#)
Stephanie Vanslambrouck, *EMCO-Inortech* | ID #78
- 14:10 – 14:30** [A combined approach based on design of experiments and numerical modelling for mechanical performance of 3D printed polylactic acid/carbon fibre composites](#)
Yu Dong, *Curtin University* | ID #84
- 14:30 – 14:50** [Load-carrying capacity of AFP-manufactured hybrid aluminum/thermoplastic composite tubes under bending](#)
Mohammadali Rastak, *Concordia University* | ID #98

Room 1003 | SUSTAINABLE TECHNOLOGIES

Session chair: Joanna Wong

- Bonded repairs of composite sandwich structures: impregnation process and quality assessment**
Jingcai Zhou, *McGill University* | ID #62
- Recyclability of additively-manufactured PEI-carbon fiber composites: assessment of environmental footprint and mechanical performance**
Ghita El Anbri, *Polytechnique Montreal* | ID #87
- Concept and lab testing of a pedestrian bridge span constructed from a repurposed wind turbine blade**
Maciej Kulpa, *Rzeszow University of Technology* | ID #92
- Effect of stearic acid coating on the properties of bio-epoxy unidirectional flax fiber composites**
Victoria Le Maire, *McMaster University* | ID #93

14:50 – 15:00

PM Coffee Break (10min)

15:00 – 16:20

PM Programming Block #2

Room 1001 | EXPERIMENTAL METHODS

Session chair: Frédérick Gosselin

- 15:00 – 15:20** [Mode I delamination behavior of flax-epoxy laminates made with UD and UD-mat reinforcements](#)
Gilbert Lebrun, *Université du Québec à Trois-Rivières* | ID #118
- 15:20 – 15:40** [Thermomechanical characterization and optimization of liquid crystal elastomer actuators activated via integrated joule heating](#)
Estelle Chin, *Carleton University* | ID #120
- 15:40 – 16:00** [Modeling and managing void generation in out-of-autoclave prepregs cured quickly](#)
Elham Pakzad, *The University of British Columbia* | ID #131
- 16:00 – 16:20** [Carbon fiber thermoplastic compounds for the automotive industry: structure-property relationship](#)
Abdul Rahim Arafath, *SABIC* | ID #25

Room 1003 | SUSTAINABLE TECHNOLOGIES

Session chair: Joanna Wong

- Processing strategies for recycled carbon fibre using in-situ polymerizable thermoplastics**
Lukas Netzband, *McGill University* | ID #64
- Experimental comparison of additively manufactured PLA honeycomb cores with aluminium and Nomex® for crashworthy sandwich structures**
Maria Pia Falaschetti, *University of Bologna* | ID #97
- Thermoplastic pultrusion: a comparison of melt and in-situ profiles**
Andrew Hrymak, *Western University* | ID #100
- Linking elementary-fibre/lumen size gradients to multi-view micro-DIC strain localization and fracture modes in technical bamboo fibres**
Carlos Fuentes, *Luxembourg Institute of Science and Technology* | ID #161

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PM Programming Block #1

13:30 – 14:50

Room 1221 | MATERIALS & MANUFACTURING

Session chair: Frank Henning

Adaptive manufacturing method for double diaphragm forming of CYCOM® EP2750 prepreg

Yining Jiang, *Centre technologique en aérospatiale* / ID #50

Investigation of impact damage in thin-ply CFRP laminates with biomimetic layup design and resin properties control

Masaaki Nishikawa, *Kyoto University* / ID #52

Effects of aging in IRM902 on the mechanical behavior of injection- and extrusion-processed thermoplastic polymers

Yingnan Wang, *University of Alberta* / ID #53

In situ thermal remending of multimaterial 3D-printed thermoplastic composites

Negar Aghigh, *Polytechnique Montréal* / ID #69

Room 1611 | NUMERICAL METHODS

Session chair: Reza Vaziri

Mechanical analysis of step-step wet layup repairs: numerical and experimental approach

Loïc de Bluze, *Université Laval* / ID #70

Blind prediction challenge for bonded aircraft T-joint failure

Guillaume Renaud, *National Research Council Canada* / ID #96

Fast and accurate analytical solution for predicting local bending in composite conical shell structures with flanges

Valerio Belardi, *University of Rome Tor Vergata* / ID #101

Numerical investigation of hybrid thin-ply laminates for matrix cracking and delamination suppression in linerless cryogenic hydrogen tanks

Peyman Shabani, *Carleton University* / ID #105

13:30 – 13:50

13:50 – 14:10

14:10 – 14:30

14:30 – 14:50

PM Programming Block #2

15:00 – 16:20

Room 1221 | MATERIALS & MANUFACTURING

Session chair: Frank Henning

Fatigue behavior of compliant, pneumatically actuated glass fiber-reinforced shading modules: a case study of the Flectoline façade

Larissa Born, *University of Stuttgart* / ID #71

Calibration of 2D thermal simulations for large-scale additive manufacturing using thermography maps

Hubert Courteau-Godmaire, *Hutchinson Montreal* / ID #77

The springback effect in thermoplastic composites for net-shape manufacturing

Lukas Spirig, *University of Calgary* / ID #81

Formability and defect formation mechanisms for a binder stabilized unidirectional non-crimp fabric

Zohreh Mohammadi, *University of Waterloo* / ID #140

Room 1611 | NUMERICAL METHODS

Session chair: Reza Vaziri

Design optimization for automated fibre placement manufacturing of linerless hydrogen composite pressure vessels

Melina Lanzo, *Carleton University* / ID #109

Prediction of anisotropic thermal conductivity in short carbon fiber reinforced polymers using multiscale analysis

Harry Zhou, *The University of British Columbia* / ID #128

Incorporating crack-parallel stress effects into a spectral stiffness microplane fracture model

Matthew Holmes, *University of Washington* / ID #49

Microscale permeability prediction of fibre bundles using smoothed particle hydrodynamics

Anatoly Koptelov, *University of Bristol* / ID #150

15:00 – 15:20

15:20 – 15:40

15:40 – 16:00

16:00 – 16:20

WEDNESDAY | AM

AUGUST 12, 2026

08:30 – 09:30

Plenary Co-Lecture | Room 1005

Certification by analysis of large composite structures – vision or delusion?

Prof. Ole T. Thomsen, *University of Bristol*



09:30 – 10:30

AM Programming Block #1

Room 1001 | EXPERIMENTAL METHODS

Session chair: John Montesano

09:30 – 09:50

Characterization and viscoelastic modelling of a conductive polymer metal composite

Aiden Corke, *Carleton University* | ID #122

09:50 – 10:10

Wrinkle morphology effects on thermoelastic spring-in in composite L-sections

Connor Long, *The University of British Columbia* | ID #136

10:10 – 10:30

Influence of microstructure on the compressive response of filament-wound carbon fiber/epoxy composite tubes

Iyimide Shola-Shittu, *University of Waterloo* | ID #143

Room 1003 | MATERIALS & MANUFACTURING

Session chair: Martine Dubé

Application of hot powder bed compaction in additive and subtractive composite manufacturing demonstrating improved performance and flexible fusion

Alex Kravchenko, *Old Dominion University* | ID #130

High-productivity additive manufacturing of thermoplastic composites through fused granulate fabrication

Loïc Cummings-Jomphe, *Polytechnique Montréal* | ID #90

Influence of thermal history on process-properties relationship in fused filament fabrication of high-temperature thermoplastic composites

Minh-Tam Nguyen, *Polytechnique Montreal* | ID #114

10:30 – 10:50

AM Coffee Break (20min)

10:50 – 12:10

AM Programming Block #2

Room 1001 | EXPERIMENTAL METHODS

Session chair: John Montesano

10:50 – 11:10

Formulation of a temperature-dependent viscoelastic-damage-friction constitutive model to quantify entropy generated during fatigue of composite materials

Ricardo Marques, *University of Victoria* | ID #156

11:10 – 11:30

High-speed microscale imaging of damage in composite laminates

Mahoor Mehdikhani, *KU Leuven* | ID #170

11:30 – 11:50

Vacuum-infused PMMA-cotton composite textile with tunable mechanical properties: multivariate analysis

Rohith Jayaraman Krishnamurthy, *The University of British Columbia* | ID #172

11:50 – 12:10

Modelling of isothermal physical aging of semi-cured thermosets

Sherry Kiafar, *The University of British Columbia* | ID #1

Room 1003 | MATERIALS & MANUFACTURING

Session chair: Martine Dubé

Development and characterization of piezoelectric particle-enhanced self-sensing hybrid composites

Péter Csvila, *Budapest University of Technology and Economics* | ID #106

D-MEW: Single-channel validation of a dual-material capable delta melt electrowriting platform for high-speed scaffold fabrication

Ankush Deol, *Carleton University* | ID #132

High-performance cellulose nanofibril-reinforced epoxy composites using directional freezing and flax hybridization

Kevin Oesef, *The University of British Columbia* | ID #164

Improving the surface finish in membrane-assisted ceramic matrix composites injection-filtration molding: a tradeoff between geometry and material properties

Arthur Saasa, *Polytechnique Montréal* | ID #160

12:10 – 13:30

Lunch



Overcoming the challenges to utilize full-field imaging & data fusion in structural analysis
Prof. Janice M. Dulieu-Barton, University of Bristol

AM Programming Block #1

09:30 – 10:30

Room 1221 | AI & ML METHODS

Session chair: Alireza Forghani

Leveraging machine learning for recycle transparency and circular material compliance

Sara Simon, *NETZSCH* / ID #20

Development of AI-assisted quality assurance for the process of ultrasonic welding for high-performance thermoplastic composites: a review

Dominik Görick, *German Aerospace Center* / ID #66

Efficient Experimental Design with an AI-Driven Tool Based on Bayesian Optimization

Mahshid Pournajar, *University of Bayreuth* / ID #169

Room 1611 | NONDESTRUCTIVE METHODS

Session chair: Garrett Melenka

Optimized inline quality inspection of carbon fiber-reinforced polymer (CFRP) components using structured light 3D imaging

Demas Schmorell, *German Aerospace Center* / ID #44

Non-destructive damage identification in hydrothermally aged UGFTP tapes using acoustic emission and unsupervised learning

Jorge Palacios Moreno, *University of Alberta* / ID #57

From amorphous flow to crystalline order: tracing acoustic emission through polymer processing and chain alignment

Guowei Chen, *Nanjing Forestry University* / ID #65

09:30 – 09:50

09:50 – 10:10

10:10 – 10:30

AM Programming Block #2

10:50 – 12:10

Room 1221 | AI & ML METHODS

Session chair: Navid Zobeiry

Neural network-based prediction of wrinkling severity in flax woven fabrics using material and formed-surface texture parameters

Olivia Margoto, *The University of British Columbia* / ID #89

In-situ residual strength prediction of carbon-fiber composites using machine learning

Badr-Eddine Kamouni, *Concordia University* / ID #108

Data-driven prediction of damage distribution in Prepreg Platelet Molded Composites from coarse structural descriptors

Kuthan Çelebi, *The University of British Columbia* / ID #145

Explainable physics-informed machine learning for mechanical property prediction and formulation design of recycled polymers

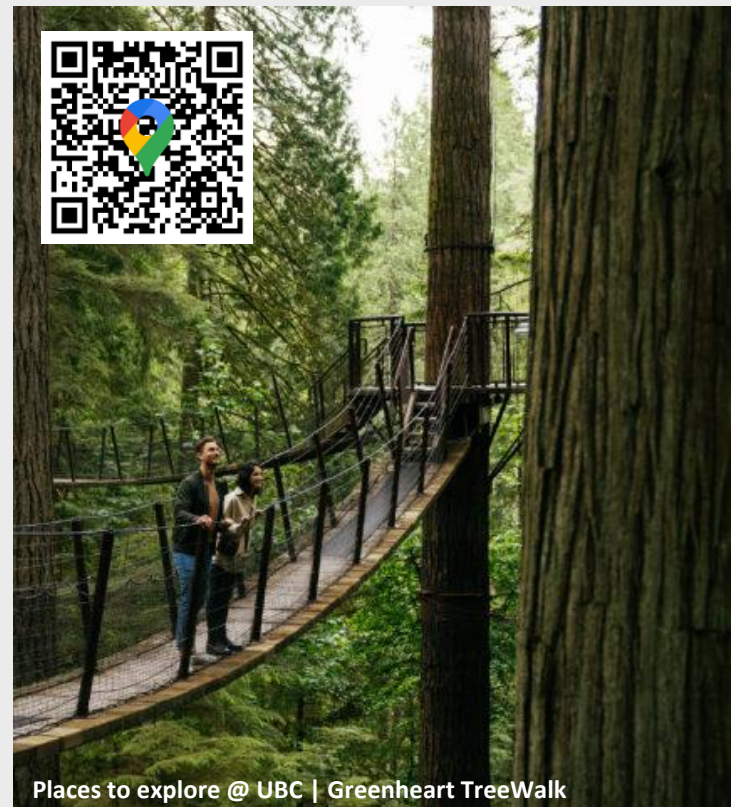
Oumayma Tajir, *University Of Sherbrooke* / ID #88

10:50 – 11:10

11:10 – 11:30

11:30 – 11:50

11:50 – 12:10



WEDNESDAY | PM

AUGUST 12, 2026

13:30 – 15:10	PM Programming Block	
	Room 1001 NUMERICAL METHODS Session chair: Maria Pia Falaschetti	Room 1003 MATERIALS & MANUFACTURING Session chair: Daniel Therriault
13:30 – 13:50	Molecules to manufactured: multiscale homogenization, modelling, and simulation for composite materials Timothy Carlson, Dassault / ID #168	Toward high-quality in-situ consolidation of thermoplastic composites: heated-mandrel AFP with controlled vacuum cooling Mahmoud Fereidouni, Concordia University / ID #121
13:50 – 14:10	Performance assessment of UD-NCF CFRP double-hat channels under oblique crush loading John Montesano, University of Waterloo / ID #138	Effect of vacuum-assisted multi-die pultrusion processing parameters on Glass Fibres/ Polyamide-6 beams Brandon Turcotte, Polytechnique Montréal / ID #124
14:10 – 14:30	Predicting process-induced deformations with a coupled cure-compaction model in AFP manufactured laminates Raul Gomez Quinones, University of Bristol / ID #144	Low-temperature induction welding of semi-crystalline thermoplastic composites via amorphous polymer interfaces Andrew Cai, UC San Diego / ID #141
14:30 – 14:50	The geometry of two-dimensional stochastic volume elements to capture the plastic properties of short fiber reinforced composites Ilona Widera, Helmut-Schmidt-University / University of the Federal Armed Forces Hamburg / ID #113	Fabrication process development for microwave heating of carbon fiber epoxy composite towpregs and tapes Mahima Dua, University of Alberta / ID #152
14:50 – 15:10	Numerical simulation of the stamping process for mild steel and GF-PA6 glass mat thermoplastic hybrid assemblies Oluwajuwon Folorunsho, McGill University / ID #155	Seeing inside an autoclave: fiber-optic shape sensor for measuring consolidation deformation Shu Minakuchi, The University of Tokyo / ID #167
15:10 – 15:20	PM Coffee Break (10min)	
15:20 – 16:45	EDI Workshop FSC 1611 General Networking FSC, Atrium	

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PM Programming Block #1

13:30 – 15:10

Room 1221 | SUSTAINABLE TECHNOLOGIES

Session chair: Genevieve Palardy

Mistletoe as a model composite system: self-assembling, self-healing natural cellulosic fibers 13:30 – 13:50
Zachary Katz, *McGill University* | ID #85

Investigating the environmental durability of vitrimerized commercial thermosets for aerospace composites 13:50 – 14:10
Tony Baltoiu, *McGill University* | ID #86

Multifunctional flame-retardant coatings on carbon fiber-reinforced PA6 composites prepared by anionic ring-opening polymerization 14:10 – 14:30
Zsófia Kovács, *Budapest University of Technology and Economics* | ID #107

High-performance PET composites reinforced with hybrid nanocellulose–silica nanorods 14:30 – 14:50
Aria Guthrie, *Applied Quantum Materials* | ID #110

Development and evaluation of biochar-filled sheet molding compound (SMC) for low-shrink and fire-retardant formulations 14:50 – 15:10
Andrew Hrymak, *Western University* | ID #162



THURSDAY | AM

AUGUST 13, 2026



08:30 – 09:30

Plenary Lecture | Room 1005

From demonstration to digital integration of composite manufacturing technologies

Dr. Ali Yousefpour, National Research Council Canada

09:30 – 10:30

AM Programming Block #1

Room 1001 | MATERIALS & MANUFACTURING

Session chair: Ilyass Tabiai

09:30 – 09:50

Prediction of process-induced deformation in CF/LM-PAEK thermoplastic composite laminates at different cooling rates
Kazuki Ryuzono, Tohoku University | ID #115

09:50 – 10:10

Braiding of composite tubes using pre-impregnated carbon fiber/thermoplastic tapes
Evans Frandsen, Polytechnique Montreal | ID #137

10:10 – 10:30

Benchmarking commercial carbon fibers for composite pressure vessels (CPV) for hydrogen storage
Abdul Rahim Arafath, SABIC | ID #24

Room 1003 | MATERIALS & MANUFACTURING

Session chair: Sampada Bodkhe

Direct pellet-based 4D foam printing of shape memory polymers: towards multifunctional adaptive foam-based structures
Rishabh Dagur, University of Alberta | ID #171

Study of SiC cake removal from flexible membrane through slurry injection/filtration process for ceramic matrix composite applications
Nathan Khakbaz-Monfared, Polytechnique Montréal | ID #111

Moisture ageing behavior of flax-epoxy composites modified with silane-functionalized graphene oxide
Jialin Zhang, The University of British Columbia | ID #163

10:30 – 10:50

AM Coffee Break (20min)

10:50 – 12:10

AM Programming Block #2

Room 1001 | MATERIALS & MANUFACTURING

Session chair: Ilyass Tabiai

10:50 – 11:10

Process development for ultra-thin fiber-reinforced thermoplastic backplates for foldable display applications
Bjoern Beck, Fraunhofer ICT | ID #117

11:10 – 11:30

Customizable 3D braided composites made using a radial braiding machine based on the chain and sprocket design
Clara Grandisson Arsenault, Polytechnique Montreal | ID #116

11:30 – 11:50

Nacre-inspired multi-scale surface architectures for toughening ceramic-polymer laminates
Hamidreza Yazdani Sarvestani, National Research Council Canada | ID #12

Room 1003 | MATERIALS & MANUFACTURING

Session chair: Sampada Bodkhe

Printability of composite inks using direct ink writing: definition and validation of a dimensionless number
Sidharth Sarojini Narayana, Polytechnique Montreal | ID #54

Evaluating the thermal efficiency of autoclave curing
Ethan Sun, The University of British Columbia | ID #151

Optimizing two-component polyurethane coatings for waterproof roofing: balancing mechanical strength and flexibility required for roofing applications
Asma Eshraghi, University of Ottawa | ID #104

12:10 – 13:30

Lunch

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AM Programming Block #1

09:30 – 10:30

Room 1221 | NONDESTRUCTIVE METHODS

Session chair: Garrett Melenka

Advanced automated NDT solutions for composite aerospace structures: modular and large-scale platforms for 3D inspection and enhanced C-scan interpretation
Rene Sicard, TecScan Systems | ID #83

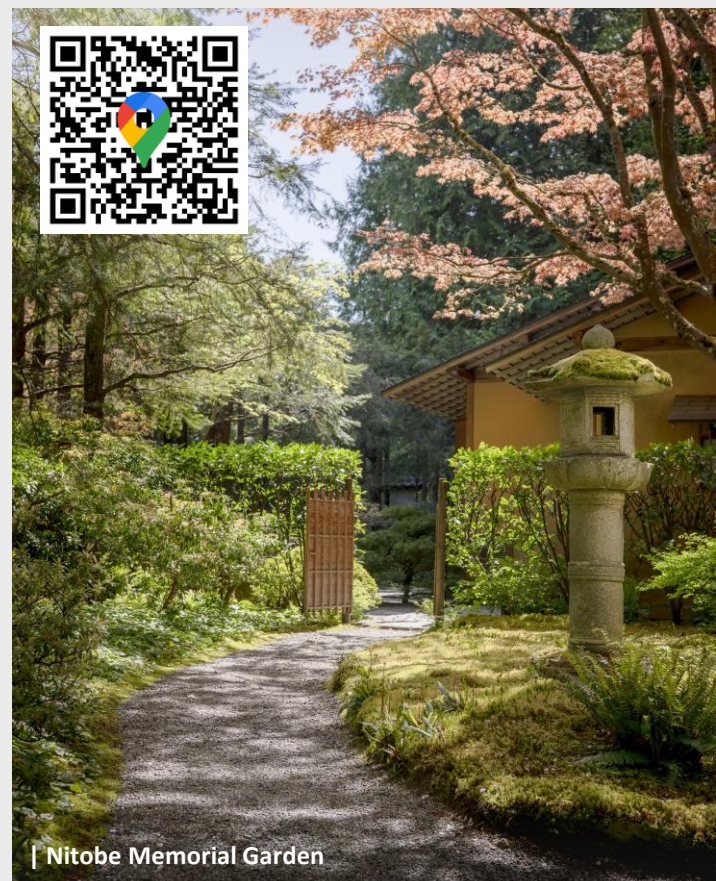
09:30 – 09:50

An automated framework for quantitative porosity assessment in CFRP using ultrasonic attenuation and high-resolution X-ray CT
Morteza Shayan Arani, Polytechnique Montreal | ID #76

09:50 – 10:10

Ultrasound-assisted porosity control in resin systems for CFRP manufacturing
Daniel Csehnger, The University of British Columbia | ID #154

10:10 – 10:30



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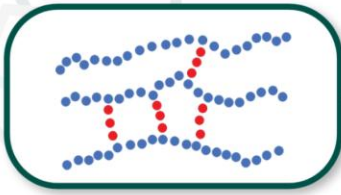


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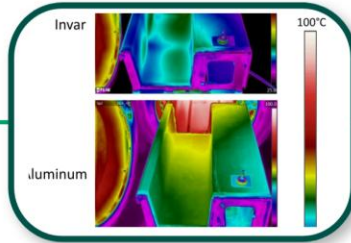
Composites science articles
(A162 Thermosetting polymers)



Open discussions on diversity
and inclusion in the industry

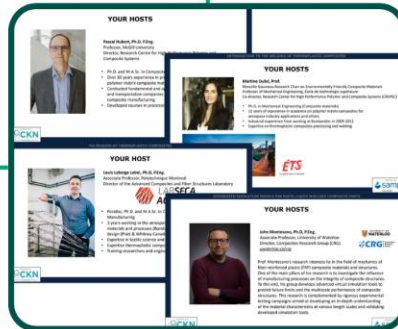


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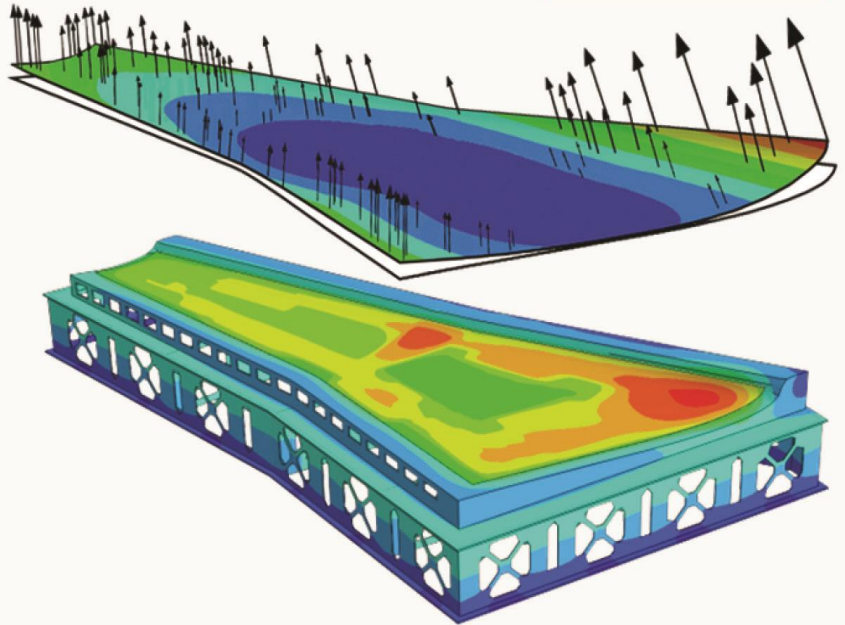


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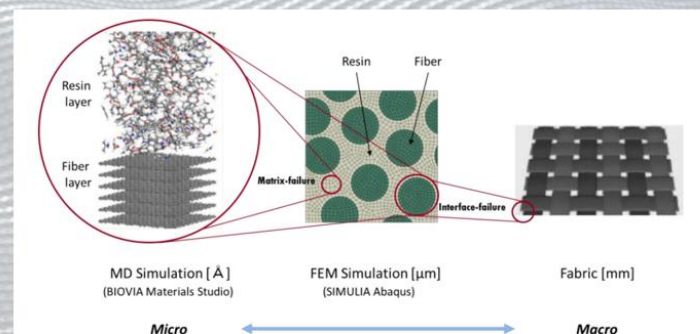
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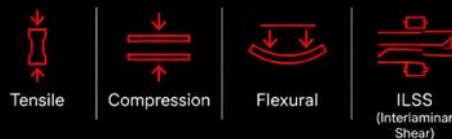
Please join Dr. Timothy Carlson of Dassault Systemes for his session on multiscale homogenization, modelling, and simulation for composite materials.



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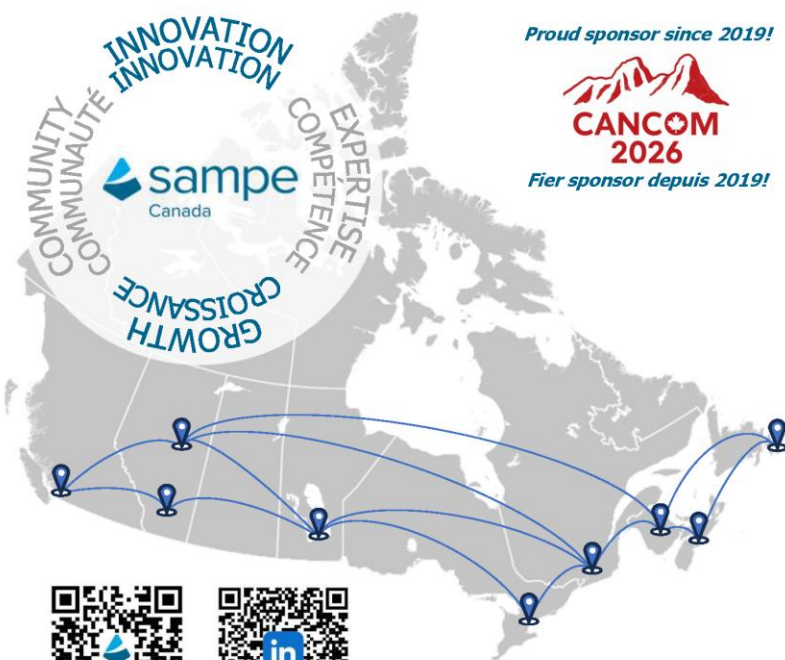
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