

Program

Innovative Materials & Methods for Additive Manufacturing III (IM2AM)

January 11 - 15, 2026

Savannah, Georgia

Conference Chair:

Brett Compton, University of Tennessee at Knoxville, USA

Conference Co-Chairs:

Eric Eastwood, KCNSC, USA

Nikhil Gupta, New York University, USA

Daniel Schmidt, Luxembourg Institute of Technology

Joamin Gonzalez-Gutierrez, Luxembourg Institute of Technology

Pedro Cortes, University of Texas at El Paso, USA



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Previous Conferences in this Series

Innovative Materials For Additive Manufacturing (IMAM)

March 8 – 12, 2020

Santa Ana Pueblo, New Mexico

Conference Co-Chairs

Daniel Schmidt, Luxembourg Institute of Science and Technology

Nikhil Gupta, New York University

Chua Chee Kai, NTU, Singapore

Brett G. Compton, University of Tennessee

Innovative Materials For Additive Manufacturing II (IM²AM)

January 8 – 13, 2024

Tomar, Portugal

Conference Co-Chairs

Daniel Schmidt, Luxembourg Institute of Science and Technology

Nikhil Gupta, New York University

Eric Eastwood, KCNSC/Honeywell FM&T

Brett G. Compton, University of Tennessee

Gary Gladysz, Los Alamos National Laboratory

Sunday, January 11, 2026

17:00 – 18:00	Conference check-in (Pre-Function Area)
18:00 – 19:00	Welcome Reception
19:00 – 21:00	Dinner and Social Hour (Sunroom)

Notes and Locations

- *Technical sessions will be in the Hutchinson Room.*
- *Poster Sessions will be in the Barnwell Room.*
- *Breakfasts and lunches will be served in the Onslow Room. Coffee breaks will be in the Pre-Function Area.*
- *Dinners will be in the Sunroom.*
- *Audio, still photo and video recording by any device (e.g., cameras, cell phones, laptops, PDAs, watches) is strictly prohibited during the technical sessions, unless the author and ECI have granted prior permission.*
- *Speakers – Please have your presentation loaded onto the conference computer prior to the session start (preferably the day before).*
- *Speakers – Please leave at least 3 minutes for questions and discussion.*
- *Please do not smoke at any conference functions.*
- *Turn your mobile telephones to vibrate or off during technical sessions.*
- *After the conference, ECI will send an updated participant list to all participants. Please check your listing now and if it needs updating, you may correct it at any time by logging into your ECI account.*
- *Emergency Contact Information: Because of privacy concerns, ECI does not collect or maintain emergency contact information for conference participants. If you would like to have this information available in case of emergency, please use the reverse side of your name badge.*

Monday, January 12, 2026

07:00 – 08:20 Breakfast

08:20 – 08:30 Conference Welcome – Conference Liaison and Chairs

Session 1: Polymers I

Session Chair: Daniel Schmidt

08:30 – 09:00 **Coalescence model verification and investigation of unique feedstocks for polymer powder bed fusion**
Camden Chatham, Savannah River National Laboratory, USA

09:00 – 09:30 **Tailor made polyolefin and polymer blend feedstocks for powder bed fusion**
Mark Dadmun, University of Tennessee, USA

09:30 – 10:00 **Energetic mass mocks produced by powder bed fusion**
C. Garrett Campbell, Sandia National Laboratories, USA

10:00 – 10:30 **Functional binders for bind jet additive manufacturing**
Dustin Gilmer, University of Tennessee, USA

10:30 – 11:00 Coffee Break

Session 2: Metals

Session Chair: Jochen Mueller

11:00 – 11:30 **Manufacturing process of tooling molds using an additive/subtracting L-DED platform**
Pedro Cortes, The University of Texas at El Paso, USA

11:30 – 12:00 **Multi-modal detection of subsurface porosity for directed energy deposition**
Eric MacDonald, The University of Texas at El Paso, USA

12:00 – 12:30 **In-situ thermomechanical processing in Waam stainless steels for microstructure control**
Shramana Ghosh, ORNL, USA

12:30 – 13:30 Lunch

Free time / *ad hoc* sessions

19:30 – 21:30 **Poster Session** and Social Hour

Tuesday, January 13, 2026

07:00 – 08:20 Breakfast

08:20 **Session 3: Polymers II**
Session Chair: Eric Eastwood

08:30 – 09:00 **Hot-end co-extrusion of multiple thermoplastics for programmable and tough composite additive manufacturing**
Taemin Kim, KAIST, South Korea

09:00 – 09:30 **Mapping of interfacial heterogeneities in high-performance engineering thermoplastics and composites during additive manufacturing via synchrotron X-ray diffraction**
Hilmar Koerner, Air Force Research Laboratory, USA

09:30 – 10:00 **Advancing dielectric polymer composites for high-performance thermal management via microstructure engineering and additive manufacturing**
Randall Erb, Northeastern University, USA

10:00 – 10:30 **Material characterization and process mapping for thermoplastics and thermosets in additive manufacturing using FGF and DIW technologies**
Charles Dwyer, JuggerBot 3D, USA

10:30 – 11:00 Coffee Break

Session 4: Ceramics I
Session Chair: Brett Compton

11:00 – 11:30 **High-throughput compositional and processing mapping for additive manufacturing of extreme ceramics**
Christopher Hansen, University of Massachusetts Lowell, USA

11:30 – 12:00 **Effect of carbon fiber addition and sintering temperature on thermal and mechanical properties of ZrB₂ produced via material extrusion**
Connor Wyckoff, AV, Inc, USA

12:00 – 13:00 Lunch

13:20 Meet in the Lobby for the Excursion

13:30 **Excursion - Old Town Trolley Tour**, a private 75-minute tour through the Victorian and Colonial historic districts of Savannah. After the tour you will be given the option to be (1) dropped off downtown at one of two locations or (2) return to the hotel. Guests have Hop-On / Hop-Off privileges until 5 pm to further explore Savannah.

Dinner on your own

Wednesday, January 14, 2026

07:00 – 08:20	Breakfast
8:20	<u>Session 5: Process Development (MatEx)</u> Session Chair: Stian Romberg
08:30 – 09:00	Advancing direct ink writing through material formulation and multifunctional printhead design for complex architectures Jochen Mueller, Johns Hopkins University, USA
09:00 – 09:30	Accelerating direct ink write (DIW) design: Functional fillers, data optimization, and prediction James Tata, Los Alamos National Lab, USA
09:30 – 10:00	Quality-by-design for high solids material extrusion additive manufacturing Blair Brettmann, Georgia Tech, USA
10:00 – 10:30	Studying-Polymers-On a-Chip (SPOC): Automated, high-throughput screening of polymer membranes for diverse energy applications Johanna Schwartz, Lawrence Livermore National Laboratory, USA
10:30 – 11:00	Coffee Break
	<u>Session 6: Polymers III</u> Session Chair: Blair Brettmann
11:00 – 11:30	Adapting vitrimers to additive manufacturing Daniel F. Schmidt, Luxembourg Institute of Science and Technology
11:30 – 12:00	Advanced metrology of thermoset composites in direct ink writing: Structural instability and residual stress Stian Romberg, University of Tennessee, USA
12:00 – 12:30	Developing principles for process parameter optimization for additive manufacturing of thermosetting syntactic foams Nikhil Gupta, New York University, USA
	Lunch on your own and free time
18:30 – 20:30	Conference Banquet and Social Hour

Thursday, January 15, 2026

07:00 – 08:20	Breakfast
08:20	<u>Session 7: Ceramics II</u> Session Chair: Dustin Gilmer
08:30 – 09:00	Accelerating, debinding and achieving large-scale additively manufactured ceramic structures Amy Peterson, University of Massachusetts Lowell, USA
09:00 – 09:30	Material extrusion additive manufacturing of polymer-derived ceramic composites Brett Compton, University of Tennessee, USA
09:30 – 10:00	Coffee Break
10:00 – 11:00	Conference Wrap-up / Next steps

Poster Presentations

- 1. Material extrusion additive manufacturing of light and high-performance axial flux motor stators using PA12/Fe composite magnetic filaments**
Taemin Kim, KAIST, South Korea
- 2. Recyclability of polypropylene in selective laser sintering**
Ayden Woodard, Los Alamos National Laboratory, USA
- 3. Crystallographic orientation dependence of mechanical properties of additively manufactured and wrought C103 Niobium alloy**
Aurelia Moriyama-Gurish, Yale University, USA
- 4. Comparison of printed vs. traditional stochastic foams via Vat photopolymerization**
Jacob Mitchell, Los Alamos National Laboratory, USA
- 5. Advanced materials and manufacturing technologies**
James Kemp, Oak Ridge Institute for Science and Education, USA
- 6. 3D printing of hybrid core-shell, polymer-derived ceramic composites via direct-ink writing**
Chase Mortensen, University of Tennessee-Knoxville, USA
- 7. Starved, syntactic, and structural foams using powder bed fusion**
Samantha Knight, Sandia National Laboratories, USA
- 8. Sterically tuning Diels-Alder equilibria in Bis(furan) monomers**
Bradley Grim, Sandia National Laboratories, USA