ELECTRONICS PACKAGING SYMPOSIUM

SEPTEMBER 3-4, 2025 • GE Aerospace, Niskayuna, NY

Presented by: IEEC, Binghamton University •
CAMM, Binghamton University • GE Aerospace • IBM Research

Advance Program

Registration Link: https://www.eventbrite.com/e/2025-electronics-packaging-symposium-tickets-1297349068989?aff=oddtdtcreator

http://bit.ly/4eayL0o

AGENDA – WEDNESDAY, SEPTEMBER 3

Steinmetz Auditorium	**08:00 – 08:30**	**Opening Remarks**
	08:00 – 08:10	**Bahgat Sammakia**, Vice President for Research, Binghamton University
	08:10 – 08:20	**Cliff Macklin**, Technology Director, Digital & Electrical Systems; GE
	08:20 – 08:30	**Huiming Bu,** Vice President, Global Semiconductor R & D and Albany Operations, IBM Research
	08:30 – 09:50	**Keynote Speakers**
	08:30 – 09:10	**Amanda K Petford-Long** *(Argonne National Lab)* - Argonne National Laboratory's Microelectronics Research
	09:10 – 09:50	**Mark Schultz** *(IBM)* **–** Pumped Two-Phase Cooling for Sustainable High-Performance Computing
	09:50 – 10:10	**Break - Gallery**
Steinmetz Auditorium	**10:10 – 11:40**	**Session 1: Heterogeneous Integration**
	10:10 – 10:40	**Manuela Junghähnel** *(Fraunhofer IZM)* – Modular interposer architecture providing scalable heat removal, power delivery, and communication
	10:40 – 11:10	**Chuck Woychik** *(nHanced Semiconductor)* **–** The Future of Electronics Packaging: Chiplet Architecture and AI Defect Inspection
	11:10 – 11:40	**Chris Bower** *(XDisplay)* – Heterogeneous Integration of Microscale Light Emitters and CMOS Chiplets Using Elastomer Stamp Mass Transfer
	11:40 – 01:00	**LUNCH in Gallery**
Steinmetz Auditorium	**01:00 – 02:30**	**Session 2: Photonics Packaging**
	01:00 – 01:30	**David Harame** *(AIM Photonics)* - Co-Process and Co-Design for Co-packaged Optics
	01:30 – 02:00	**Koushik Ramachandran** *(Global Foundries)* **–** Photonic Packaging: Path to High Volume Manufacturing
	02:00 – 02:30	**Venkatesh Deenadayalan** (RIT) - Micro-Transfer Printed Thin Film Lithium Niobate - Silicon Nitride Modulators, and Photonic Wire-Bonded On-Chip Lasers
Conference Rm 4/5	**10:10 – 11:40**	**Session 3: mmWave and 5G Packaging**
	10:10 – 10:40	**Genaro Soto Valle** *(Georgia Tech)* - Zero-Power Additively Manufactured FHE-Enabled Wireless/5G+ Ultrabroadband Modules for IoT, SmartAg, Industry 4.0 and Smart Cities Applications: from dream to reality
	10:40 – 11:10	**Michael Holyoak** *(Bell Labs / Nokia)* - Radio-on-Glass: A High-Performance Alternative for mmWave Packaging
	11:10 – 11:40	**Sergio Cardona** *(ED2 Corp.)* - From Substrate to System: Unlocking 3DHI for mmWave to Terahertz

AGENDA – WEDNESDAY, SEPTEMBER 3

	11:40 – 01:00	**LUNCH in Gallery**
Conference Rm 4/5	**01:00 – 02:30**	**Session 4: Wearable and Flexible Electronics**
	01:00 – 01:30	**Denis Cormier** *(AMPrint, RIT)* - Additive Printed Electronics Using Molten Metal Droplet Jetting
	01:30 – 02:00	**Christine Kallmayer** *(Fraunhofer IZM)* - Stretchable Electronics - Smart Patches for Wound Monitoring
	02:00 – 02:30	**Michael A Cullinan** *(UT Austin)* - Micro and Nanoscale Additive Manufacturing for Electronics Packaging Applications
	02:30 – 03:00	**Break - Gallery**
Steinmetz Auditorium	**03:00 – 04:30**	**Co-Packaged Optics, Challenges and Adoption –** Moderated by: John Mazurowski (Penn State) Panelists: Vikas Gupta(Global Foundries), David Harame (AIM Photonics), John Knickerbocker (IBM), Clint Schow (UCSB)
	04:30 – 06:30	**Poster Session / Networking Reception / Tours**
	06:30 – 08:00	**Dinner in Gallery**

AGENDA – THURSDAY, SEPTEMBER 4

Steinmetz Auditorium	**08:00 – 08:40**	**Keynote Speakers**
	08:00 – 08:40	**Eric Forsythe** *(CHIPS Office)* **-** Digital Twins for Advanced Manufacturing: Accelerating Advanced Package Innovation
	08:40 – 10:10	**Session 5: Power Electronics / Harsh Environments**
	08:40 – 09:10	**Alan Mantooth** *(U Arkansas)* - Medium-Voltage Power Module in Data Center Applications
	09:10 – 09:40	**Jong Eun Ryu** *(North Carolina State University)* **-** Digital Twin for Reliability and Life Prediction in SiC Power Electronics
	09:40 – 10:10	**Fang Lou** *(Stonybrook University)* - Advanced Packaging and Optimization for High Voltage WBG Modules
	10:10 – 10:40	**Break - Gallery**
	10:40 – 11:00	**Session 6: Future of Computing for HPC / AI**
	10:40 – 11:10	**Clint Schow** *(UC Santa Barbara)* - Low-Power Coherent Optics to Enable Reconfigurable Networks in AI Systems
	11:10 – 11:40	**Vikas Gupta** *(Global Foundries)* - Silicon Photonics Technology and Packaging: An AI Perspective.
	11:40 – 12:10	**John Knickerbocker** *(IBM)* – Advancements in Co-Packaged Optics from Research to Prototypes & Manufacturing

AGENDA – THURSDAY, SEPTEMBER 4

Conference Rm 4/5	**08:40 – 09:40**	**Session 7: Advance Substrates**
	08:40 – 09:10	**Erik Jung** *(Fraunhofer IZM)* – Evolution of advanced substrate technology: The shifts towards glass as core material
	09:10 – 09:40	**Robert Schaut** *(Corning)* – Addressing mechanical reliability challenges for glass core adoption
	09:40 – 10:10	**Dan Turpuseema** *(Advantest Interconnect Solutions)* **–** Organic Substrate Fabrication for Fine Pitch Wafer Probing and Advanced Packaging
	10:10 – 10:40	**Break - Gallery**
	10:40 – 11:00	**Session 8: Thermal Challenges**
	10:40 – 11:10	**Srikanth Rangarajan** *(Binghamton University)* - AI for energy efficient electronic systems
	11:10 – 11:40	**Theodorian Borca-Tasciuc** *(RPI)* **-** Thermal conductivity metrology of thin films for electronic applications
	11:40 – 12:10	**Emad Andarawis** *(GE Aerospace)* **-** Robust Multilevel Die Interconnect for 600°C Operation
	12:10 – 01:10	**LUNCH in Gallery**
Steinmetz Auditorium	**01:10 – 03:10**	**Workshop / Panel / Guest speaker Podium**
	01:10 – 01:30	**Girish Wable** *(Smart USA) – Smart USA center for Digital Twins*
	01:30 – 01:50	**Scott Miller** *(NextFlex)* **–** Flexible, Hybrid Electronics MII
	01:50 – 02:10	**John Mazurowski** *(Penn State)* **–** Penn State / MANTEC
	02:10 – 02:30	**Dean Turnbaugh** *(NTVUSA)* – Printing New Enabling Materials For Circuits/Sensors and Additive Manufacturing
	02:30 - 02:50	**Jobert von Eisen** *(MKS/Atotech)* – Advanced Packaging - Substrate Technology Trends

Steinmetz Auditorium — Openings, Keynotes, Sessions, Workshops, Panels

Conference Rm 4/5 — Sessions