

2024 IEEE Symposium on Reliability for Electronics and Photonics Packaging Reliability, Failure Modes and Testing for Integration of Electronics and Photonics (SiPho)							
Theme: Reliability for Advanced Semiconductor Packaging							
Day 1 - November 7 2024 (Thursday)							
Start Time	Duration	End Time	Mode	Session Type	Speaker Name	Title	Affiliation
Session 1. Reliability for Thermal, Mechanical and Cooling Systems [Chair: Ranjan, Tiwei, Sriknath]							
07:30	00:30	08:00	Breakfast and Coffee				
08:00	00:15	08:15	In-person	Welcome	Tiwei Wei, Zhihong Chen	Introduction and welcome	Purdue University
08:15	00:35	08:50	In-person	Plenary speaker	Patrick F McCluskey	Reliability and Availability of Novel Data Center Cooling Systems	University of Maryland
08:50	00:30	09:20	In-person	Keynote Speaker	Amy Marconnet	Reliability for Thermal interface materials	Purdue
09:20	00:25	09:45	Online	Invited talk	Amr Haggag	TBD/ will be on datacenter cooling	Arm
09:45	00:20	10:05	Coffee Break				
10:05	00:30	10:35	Online	Keynote Speaker	Sreekant Narumanchi	Reliability of Bonded Interface Materials for Power Electronics	NREL
10:35	00:25	11:00	In-person	Invited talk	Sriknath Rangarajan	Reliability modeling of liquid cooled data centers	Binghamton
11:00	00:25	11:25	Online	Invited talk	Luca Amalfi	Device cryo reliability	Seguente
11:25	00:20	11:45	Online	Technical Presentation	Alexander Hillström	Experiences of Electronics Packaging at Scania: Challenges and Opportunities	Mälardalen University
11:45	01:00	12:45	Lunch Break / Poster Presentations				
Session 2. Reliability for Analog/RF, Quantum, and Power Integrated Circuits [Chair: Hualiang, Srikanth]							
12:45	00:35	13:20	Online	Plenary speaker	Alex Grill	Cryogenic CMOS Technologies for Quantum Computing Systems	IMEC
13:20	00:20	13:40	In-person	Technical Presentation	Kaiying Jiang	Two-phase Cooling reliability	Stanford University
13:40	00:25	14:05	In-person	Invited talk	Luigi Balestra	Characterization and Modelling of Epoxy Mold Compounds for High-Voltage Integrated-Circuit Packages	University of Bologna
14:05	00:30	14:35	Online	Keynote Speaker	Reza Ghaffarian	HALT & TC Reliability of QFN Assemblies w/wo Urathane Coating	JPL
14:35	00:20	14:55	Coffee Break				
14:55	00:20	15:15	In-person	Technical Presentation	Pranay Nagrani	Accelerated Degradation of Thermal Greases under Mechanical Cycling	Purdue University
15:15	00:20	15:35	Online	Technical Presentation	Joaquin Matres	GDS Factory: Build Better Hardware with Better Software	Google-X / GDSFactory
15:35	00:20	15:55	In-person	Technical Presentation	Ritwik Kulkarni	Impact of Non-Flat Coldplate Surface on Degradation of Thermal Greases	Purdue University
15:55	00:25	16:20	Online	Invited talk	Yan Li	Fault Isolation and Failure Analysis Challenges in Microelectronic Devices with Heterogeneous Integration: EDFAS FA Technology Roadmap Overview	Samsung Advanced Packaging
16:20	00:25	16:45	In-person	Invited talk	Shubhra Bansal	Electromigration and Thermomigration Behavior of Cu Microbumps in Stacked Die Assembly	Purdue University
16:45	00:50	17:35	In-person	Purdue - Birck Microelectronics Cleanroom (Packaging Facilities) tour			
17:35	00:25	18:00	In-person	Break and move to the restaurant			
18:00	Evening		In-person	Host dinners at West Lafayette restaurants			
Day 2 - November 8 2024 (Friday)							
Start Time	Duration	End Time	Mode	Session Type	Speaker Name	Title	Affiliation
Session 3. Reliability for Photonics [Chair:Farnood Rezaie, David]							
07:30	00:30	08:00	Breakfast and Coffee				
08:00	00:15	08:15	In-person	Welcome	Farnood, Ganesh	Introduction and welcome	Purdue University
08:15	00:35	08:50	Online	Plenary speaker	Surya Bhattacharya	Electronic Photonic Heterogeneous Integration for Compact Optical Transceivers and Co-packaged Optical Engines	A*STAR Institute of Microelectronics (IME), Singapore
08:50	00:30	09:20	In-person	Keynote Speaker	Vanessa Smet	Reliability on glass package	Georgia Institute of Technology
09:20	00:20	09:40	Online	Technical Presentation	Yifan Yao	Electromigration failure caused by interdiffusion between Al trace and Cu seed layer in the microbump in 3D IC	City University of Hong Kong
09:40	00:30	10:10	In-person	Invited Talk	David Coenen	Thermal Management of Hybrid Integrated Lasers in Si Photonics	IMEC
10:10	00:20	10:30	Coffee Break				
10:30	00:35	11:05	In-person	Plenary speaker	Ganesh Subbarayan	Computational Modeling of Crack Initiation and Growth in BEOL Structures	Purdue University
11:05	00:25	11:30	Online	Invited talk	Jason Zhang; Xiaorong Xiong	Embedded Multi-die Interconnect Bridge (EMIB) family and 3D Foveros	Intel
11:30	00:20	11:50	In-person	Technical Presentation	Shuhang Lyu	Reliability Investigations for Scaling 3D Interconnects in Advanced Semiconductor Packaging	Purdue University
11:50	00:25	12:15	Online	Invited talk	Oguzhan Orkut Okudur; Mario Gonzalez	Mechanical Integrity of Hybrid Bonding	IMEC
12:15	01:00	13:15	Lunch Break / Poster Presentations				
Session 4. Reliability, Metrology for Advanced Packaging, 3D Interconnects, in AI, HPC [Chair: Vanessa, Abhijit]							
13:15	00:35	13:50	In-person	Plenary speaker	Abhijit Dasgupta	Reliability of Microelectronic Interconnections: The Microstructure Matters!	University of Maryland
13:50	00:30	14:20	Online	Keynote Speaker	Bill King	Reliability for cooling, boiling	UIUC
14:20	00:30	14:50	Online	Keynote Speaker	David Huitink	Addressing TIM Degradation in Lifetime Prediction of Data Center CPU/GPUs: Testing Methodology, Failure Definition and Performance of Nanowire-based TIMs	University of Arkansas
14:50	00:20	15:10	Online	Technical Presentation	Gabor Harsanyi	Reliability Problems of Optoactive Materials in LED Packaging	Budapest University of Technology and Economics
15:10	00:20	15:30	In-person	Technical Presentation	Jack (Kai-chieh) Chiang	Simulations of reliability issues in microelectronic packages	Purdue University
15:30	00:20	15:50	Online	Technical Presentation	Michael Blatta	LED Reliability Factors on IMS PCBs	Ansys
15:50	00:30	16:20	In-person	Best Poster Award Announcement			
16:20	01:00	17:20	In-person	Purdue Lab Tour			