



Innovation in Failure Analysis and Material Diagnostics of Electronics Components

14th CAM-Workshop
21. - 22. April 2027



Social Programm

Tuesday, 19.05.2026 | 17:20 - 18:00 | Exhibition Area

Drinks Reception

Be sure not to miss our drinks reception in the exhibition area – starting straight after the workshop. Refreshments and finger foods will be provided for all delegates attending the conference.

Tuesday, 19.05.2026 | 18:00 - 22:00 |

Gardens at Leibniz IAMO



Networking Dinner

Our live musicians will be performing jazz classics with piano and saxophone while you enjoy a meal in the beautiful gardens of Leibniz IAMO. This gives you a chance to continue your discussions within a relaxed and informal atmosphere. All participants are invited to join us!



network name: IAMO
password: Turnschuh1A



Fraunhofer
IMWS

Fraunhofer Institute for Microstructure of Materials and Systems IMWS

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19. - 20. May 2026

Innovation in Failure Analysis and Material Diagnostics of Electronics Components

www.cam-workshop.de



Tuesday, 19.05.2026

SESSION A: 3D Heterogeneous Integration

- 09:00

Welcome
Frank Altmann | Fraunhofer IMWS (DE)
- 09:05

Results of the Survey on “Failure Analysis, Testing, and Metrology” Conducted as part of the Concerted Action - Roadmapping HTAD and the Microelectronics Strategy of the Federal Government
Jacob Hornung | VDI/VDE Innovation + Technik GmbH (DE)
- 09:20

Keynote: Reliability Challenges of Silicon Photonic Devices and its related Failure Analysis Challenges
Ping-Yi Hsieh | imec (BE)
- 10:00

Keynote: AI/ML-Driven Paradigms for Heterogeneous Integration: Digital Twin, Intelligent Reliability and Failure Analysis
Przemyslaw Jakub Gromala | Robert Bosch GmbH (DE)
- 10:40

Coffee Break / Exhibition

SESSION A: 3D Heterogeneous Integration (continued)

- 11:00

Defect Characterization of Hybrid Bonded Systems
Christopher Benndorf | Fraunhofer IMWS (DE)
- 11:20

Reliability Considerations for Micro-Transfer Printing of Photonic Components
Sergii Gudyriev | XFAB (DE)
- 11:40

Failure Analysis Techniques and Lab Requirements for Silicon Photonics Fault Isolation
Ryan Sweeney | Global Foundries (US)
- 12:00

Characterization and Test of Photonic Components in Micro Systems
Lukas Uhlig | Fraunhofer ENAS (DE)
- 12:20

Lunch Break / Exhibition



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SESSION A: 3D Heterogeneous Integration (continued)

- 13:40

Quantum Diamond Microscopy for Non-Destructive Failure Analysis of an Integrated Fan-Out Package-on-Package iPhone Chip
Bartu Bisgin | Quantum Diamonds GmbH (DE)
- 14:00

Microwave Induced Plasma Etching for 2.5D/3D Advanced Package Sample Preparation
Jiaqi Tang | Jiaco Instruments (NL)
- 14:20

Tescan FemtoChisel: High-Throughput Decapsulation, Delayering, and Large-Area Cross-Sectioning for Advanced Microelectronics
Pouya Tavousi | TESCAN (US)
- 14:40

Local Material Characterization for Heterogeneous System Integration using Nanoindentation Techniques
Falk Naumann | Fraunhofer IMWS (DE)
- 15:00

Coffee Break / Exhibition

SESSION B: Wide Bandgap Technologies

- 15:40

Keynote: Development of next-Generation UWBG Electronics for high-Reliability Industry Applications
Vincent Gambin | Northrop Grumman Corporation (US)
- 16:20

Diamond-Based Technologies for Active Device and Thermal Cooling Integration
Matthias Mühle | Fraunhofer CMW (US)
- 16:40

Materials and Device Challenges of UWBG AlN/AlGaN for Power Electronics
Mervi Paulasto-Kroeckel | Aalto University (FI)
Marek Patocka | Aalto University (FI)
- 17:00

Revelios: Semi-Automated, Non-Destructive Crystalline Defect Metrology for GaN-based Epitaxial Layers
Martin Čalkovský | Thermo Fisher Scientific Brno (CZ)
- 17:20

Drinks Reception
- 18:00

Social Program: Networking Dinner

Wednesday, 20.05.2026

SESSION C: Tutorial

- 08:00

Defect Localization by Acoustic Microscopy
Sebastian Brand | Fraunhofer IMWS (DE)
- 09:00

Coffee Break / Exhibition

SESSION D: Advanced Failure Analyse Techniques

- 09:20

Keynote: New Challenges to IC Failure Analysis in the Era of Artificial Intelligence
Rudolf Schlangen | Nvidia (US)
- 10:00

Capabilities of a 3D Magnetic Inverse for Localizing Faults
Frederick Wellstood | Neocera MAGMA LLC (US)
- 10:20

Quantum Magnetic Microscopy for Semiconductor Failure Analysis
Marvin Holten | DiaSense ApS (DNK)
- 10:40

Localization of Package Defects in Semiconductor Devices by EOTPR
Markus Pfeiffer | Robert Bosch GmbH (DE)
- 11:00

Ultra-Low pA-level Noise EBIC and RCI of High Impedance Samples
René Hammer | Point Electronic (DE)
- 11:20

See while you Mill – SEM Guided FIB Milling and Low kV Finishing for Leading-Edge Node Semiconductor FA with ZEISS Crossbeam 750
Heiko Stegmann | Carl Zeiss Microscopy GmbH (DE)
- 11:40

Ultra-Thin Ga-Free Lamella Preparation Enabling Pristine Structural-Chemical Analysis of Advanced Technology Nodes
Letian Li | Thermo Fisher Sientific (NL)
- 12:00

Automated Ion Beam SIMS Inspection and Failure Analysis: Overcoming EDS Resolution and Sensitivity Limits
Peter Gnauck | RAITH GmbH (DE)
- 12:20

Lunch Break / Exhibition

SESSION E: Artificial Intelligence and Digitalization

- 13:40

Bringing Physics of Degradation Methodology in Board Level Vibration Testing
Patrick Rostam-Khani | NXP Semiconductors (NL)
- 14:00

Noise in SAM Data: When Similar Signals Lead to Different Diagnoses
Lorenz Heinemann | Fraunhofer IMWS (DE)
- 14:20

Exploring the Value of Instance Segmentation & other AI Methods for Failure Analysis
Bernhard Fichtl | Carl Zeiss Microscopy GmbH (DE)
- 14:40

Integrated Digital Workflows for Accelerated Failure Analysis and Enhanced Yield Learning in Semiconductor Manufacturing
Michael Fritzsche | GlobalFoundries Fab1 (DE)
- 15:00

Accelerating and Standardization of Failure Analysis through Digital Workflows and Machine Learning
Amit Choudhary | Matworks GmbH (DE)

Abstracts



All abstracts can be found on the CAM-Workshop website:

<https://cam-workshop.de/abstracts-26/>

or by simply scanning the adjacent QR-Code.

