Tuesday, 25th April 2023

SESSION A: WELCOME AND KEYNOTES

09:00	**Welcome** Erica Lilleodden / Frank Altmann, Fraunhofer IMWS (DE)
09:20	**Keynote 1: Process & Materials Characterization for 3D Heterogenous Integration: Opportunities in Smart Metrologies, Data Analytics, & Measurement Standards** Gaurang Choksi, Intel Corporation (US)
10:00	**Keynote 2: Back-side Power Delivery Network (BSPDN): Innovative scaling booster for 3D heterogeneous integration** Anne Jourdain, IMEC (BE)

SESSION B: ADVANCED 3D PACKAGING

10:40	**Hybrid wafer bonding for 3D integration: promises and challenges** Viorel Dragoi, EV Group E. Thallner GmbH (AT)
11:00	**Failure Analysis Approaches for Test Structures Targeting Wafer-to-Wafer Hybrid Bonding and Backside Power Delivery Development** Kristof Jacobs, IMEC (BE)
11:20	**X-Ray Device Alteration Using A Scanning X-Ray Microscope** William Lo, NVIDIA (US)
11:40	**Advances in high-resolution nondestructive defect localization based on recent developments in signal processing** Sebastian Brand, Fraunhofer IMWS (DE)
12:00	**ESD Targets and Test Methods for High Density Die-to-Die Interfaces** Harald Gossner, Intel Cooperation (DE)

12:20 **Lunch Break / Exhibition**

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TUESDAY, 25TH APRIL 2023

SESSION C: NOVEL FAILURE ANALYSIS TECHNIQUES

13:40	**In Depth Logic Analysis on Digital Designs** Fabian Rudau, Robert Bosch GmbH (DE)
14:20	**Compatibility of PFIB delayering and nanoprobing for advanced technologies** Pascal Gounet, STMicroelectronics (FR)
14:40	**Industrial Standards for Integrated Workflows within FA4.0** Christian Hollerith, Infineon Technologies AG (DE)
15:00	**Thermal and Failure Analysis of Advanced Sub-Micron Devices** Dustin Kendig, Microsanj LLC (US)
15:20	**Non-contact sub-micron simultaneous Infrared+Raman microspectroscopy for failure analysis of semiconductor devices** Miriam Unger, Photothermal Spectroscopy Corporation GmbH (DE)
15:40	**Physical Failure Analysis using Aberration-Corrected S/TEM** Rik Otte, NXP Semiconductors (BE)

16:00 **Coffee Break / Exhibition**

SESSION D: FAILURE ANALYSIS ROAD MAP

16:40	**Die-Level Roadmap Council (DLRC): Isolation Domain** William Lo, NVIDIA (US)
16:55	**Die-Level Roadmap Council (DLRC): Post-Isolation Domain** Eckhard Langer, GlobalFoundries (DE)
17:10	**Package Innovation Roadmap Council (PIRC)** Yan Li, Intel Corporation (US)
17:25	**FA Future Roadmap Council (FAFRC)** Nicholas Antoniou, Prime Nano Inc (US)

17:40 **Drinks Reception**

19:00 **Social Program: Networking Dinner**

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Wednesday, 26th April 2023

SESSION E: AUTOMOTIVE ELECTRONICS - TUTORIAL

08:45 **Early life failures in automotive electronic**
Peter Jacob, EM Microelectronic Marin SA (CH)

10:00 **Coffee Break / Exhibition**

SESSION F: AUTOMOTIVE ELECTRONICS

10:40 **From embedded safety dominated ECUs towards cyber secure high performance computing systems – an automotive industry's review**
Andreas Aal, Volkswagen AG (DE)

11:20 **Reliability as a key Challenge for future Vehicle Architectures**
Oliver Senftleben, BMW AG (DE)

11:40 **Corrosion on Semiconductor Surfaces – Determination of Ionic Contamination Limits**
Davina Nienhues, Robert Bosch GmbH (DE)

12:00 **Comprehensive Study of Long-Term Reliability of Copper Bonding Wires at Harsh Automotive Conditions**
Robert Klengel, Fraunhofer IMWS (DE)

12:20 **Packaging of MEMS and Sensors**
Horst Theuss, Infineon Technologies AG (DE)

12:40 **Characterization of power semiconductor junctions by combining three-dimensional FIB-SEM imaging and EBIC**
Heiko Stegmann, Carl Zeiss Microscopy GmbH (DE)

13:00 **Lunch Break / Exhibition**

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SESSION G: HARDWARE SECURITY AND COUNTERFEITING

14:20	**Failure Analysis for Physical Assurance** Navid Asidi, University of Florida (US)
15:00	**Leveraging on FA tools for the recovery of embedded memory data** Samuel Chef, Nanyang Technological University (SG)
15:20	**No Need for Reverse Engineering – Machine Learning Will Do It for Us** Jean Pierre Seifert, TU Berlin (DE)
15:40	**E-Beam Probing to attac sub 20nm nodes** Jörg Jatzkowski, Fraunhofer IMWS (DE)
16:00	**Overcoming hardware attacks with Meridian E: a new approach for nondestructive security validation** Neel Leslie, Thermo Fisher Scientific (US)
16:20	**High-Throughput Imaging of Semiconductors and Electronic Components by Multi-beam SEM** Stephan Nickell, Zeiss MultiSEM GmbH (DE)

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