3 Program

Wednesday, 10th April 2019

SESSION A: INTRODUCTION

09:30	**Welcome** Matthias Petzold, Fraunhofer IMWS (DE)
09:50	**Keynote 1: Advanced 2D & 3D Packaging Architectures** Deepak Goyal, Intel Corporation (US)
10:30	**Keynote 2: TSV and FOWLP Reliability and FA Challenges** Darvin Edwards, Edwards Enterprise Consulting, LLC (US)

11:10	**Lunch Break / Exhibition Opening**

SESSION B: 3D PACKAGING FAILURE ANALYSIS

13:10	**Challenges of Advanced Packaging Failure Analysis** Bernice Zee, AMD (SG)
13:30	**Arbitrary Waveform Stimulation and TRTR Analysis for Advanced 3D LIT Inspection** Sebastian Brand, Fraunhofer IMWS (DE)
13:50	**Laser Processing of Semiconductor Materials for Failure Analysis** Boris Rottwinkel, 3D Micromac (DE)
14:10	**Voids in CuSn 3D/Wafer Bonding** Glenn Ross, Aalto University (FI)
14:30	**Micro-Transfer-Printing – Heterogeneous Integration and Characterization of Failure Modes** Uwe Krieger, X-FAB MEMS Foundry GmbH (DE)
14:50	**Low Temperature Microwave Induced Plasma Etching for Package Decapsulation** Michael Obein, Digit Concept (FR)

15:10	**Coffee Break / Exhibition**

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SESSION C: ACOUSTIC DEFECT DETECTION AND MICRO-MECHANICAL CHARACTERIZATION METHODS

15:50	**GHz-SAM Analysis Approach for Bondpad Cratering** Stefan Oberhoff, Robert Bosch GmbH (DE)
16:10	**Parametric Signal Analysis of High Resolution SAM** Doy-Long Lê, Infineon Technologies (DE)
16:30	**Micro-Transfer-Printing and its Process Characterization by FEA & Micromechanical Testing** Falk Naumann, Fraunhofer IMWS (DE)
16:50	**Characterization of Intermetallic Phases using High Speed Nano-Indentation** Stefan Späth, Infineon Technologies (DE)
17:10	**Strain Characterization of Transistor Channel in a 22nm Fully Depleted SOI Technology** Dirk Utess, Globalfoundries (DE)
17:30	**Drinks Reception / Exhibition**
20:00	**Networking Dinner**

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SESSION D: FAULT ISOLATION

08:30	**Keynote 3: Neuromorphic Computing as Driver of the Diversification of the Embedded Non-Volatile Memory Landscape** Sven Beyer, Globalfoundries (DE)
09:10	**Automated Multi-level Circuit Net Tracing for Hotspot Analysis based on Layout Manipulation** Szu Huat Goh, Globalfoundries (SG))
09:30	**Use of Analog Simulation in Failure Analysis: Application to Emission Microscopy and Laser Voltage Probing Techniques** Luc Saury, ST-Microelectronics (FR)
09:50	**Understanding Crosstalk during Laser Probing at Spatial Resolution Compromised Technology Nodes** Venkat-Krishnan Ravikumar, Advanced Micro Devices Inc. (SG)
10:10	**High Resolution Resistance Mapping with in-situ EBAC Nanoprobing** Grigore Moldovan, point electronic GmbH (DE)
10:30	**Two Analysis Methods for Fault Localization: SOBIRCH and OPTIM** Yoshihiro Ito, Hamamatsu Photonics (JP)

10:50 **Coffee Break / Exhibition**

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SESSION E: PHYSICAL CHARACTERIZATION AND FAILURE ANALYSIS WORKSFLOWS

11:30	**Quantitative Dopant Characterization on Si and its Potential for Wide-Bandgap Semiconductors** Soeren Hommel, Infineon Technologies (DE)
11:50	**Novel Non-destructive X-ray Characterization Methods for Sub-angstrom Dopant and Thin Film Thickness Measurements and for Chemical State Analysis of Materials** Sylvia Lewis,Sigray Inc. (US)
12:10	**High Speed Thermal Characterization of GaN Transistors Using State of the Art InSb Detector and Time Equivalent Sampling Approach** Brian Lai, Sector Technologies (FR)
12:30	**3D X-ray Microscopy for High-resolution Measurements in Semiconductor Package Development** Juan Atkinson Mora, Carl Zeiss SMT GmbH (DE)
12:50	**Advanced 3D Imaging & Analysis for Function-Led Design of Porous Materials** Roland Brunner , Materials Center Leoben (AT)
13:10	**Standardized and Automated Tracking of Equipment Utilization** Stefan Döring, Infineon Technologies (DE)

13:30	**Lunch Break / Exhibition**
14:00	**Lab Tours**