3 Program

Wednesday, April 25th, 2018

INTRODUCTION

10:30 **Welcome**
Matthias Petzold, Fraunhofer IMWS / CAM (DE)

10:50 **Keynote 1: Megatrends – Impact on Package Technologies**
Thorsten Meyer, Infineon (DE)

SESSION 1/1 DEFECT LOCALIZATION

11:30 **Contactless Fault Isolation for Nanoscale Low Power Technologies on Chip and System**
Christian Boit, University of Technology Berlin (DE)

11:50 **Defect Localization in 3-D TSV Structures by Differential Light-Induced Capacitance Alteration**
Kristof J. P. Jacobs, IMEC (BE)

12:10 **Lunch Break / Exhibition Opening**

SESSION 1/2 DEFECT LOCALIZATION

13:40 **Time-resolved Lock-in Thermography for Defect Localization in 3D**
Sebastian Brand, Frank Altmann, Fraunhofer IMWS-CAM (DE)

14:00 **Non Destructive Open Fault Localization on Complex Packages Using EOTPR Technique**
Antoine Reverdy, Sector Technologies (FR)

14:20 **IC Defect Localization by Gated and Spectral Resolved Photo Emission Microscopy**
Markus Sauter, Infineon (DE)

14:40 **Catching Nano-Scaled Defects with PFA – Limits of Localization Methods**
Pascal Limbecker, Globalfoundries (DE)

Wednesday, April 25th, 2018

15:00 **Coffee Break / Exhibition**

SESSION 2 SAMPLE PREPARATION

16:00 **Combined Femtosecond Laser and Plasma DualBeam for In-situ Failure and Materials Analysis**
Steven Randolph, Thermo Fisher Scientific, Inc. (US)

16:20 **Laser-Micromachining for Failure Analysis: from TEM Sample Preparation to Large Area SEM Inspection**
Michael Grimm, 3D-Micromac AG (DE)

16:40 **Applications of MIP Decapsulation in Device Quality Control and Failure Analysis**
Jiaqi Tang, JIACO Instruments B.V. (NL)

17:00 **Extreme Backside Thinning for Laser Voltage Probing**
Michael DiBattista, Varioscale, Inc. (US)

17:20 **Plasma-FIB Delayering and Nanoprobing**
Pascal Gounet, STMicroelectronics (FR)

17:40 **Drinks Reception / Exhibition**

18:40 **Barbecue**

Thursday, April 26th, 2018

SESSION 3 PHYSICAL FAILURE ANALYSIS

08:30 **3D Analysis of Advanced Logic and Memory Devices**
Ingo Schulmeyer, Carl ZEISS SMT (DE)

08:50 **Nanoscale AFM-IR Spectroscopy for Failure Analysis of Electronic Devices**
Miriam Unger, Anasys Instruments, Inc. (US)

09:10 **Case Study: Impact of ECU Housing on Al Bond Wire Degradation in D^2PAK Devices**
Christian Rettig, Robert Bosch GmbH (DE)

09:30 **Newly Developed High Reliability Palladium Coated Cu Wire for Automotive Application**
Motoki Eto, Nippon Micrometal Corporation (JP)

09:50 **Crystal Orientation Mapping and Imaging Using On-Axis Transmission Kikuchi Diffraction (TKD) Technique in the SEM**
Daniel Goran, Bruker Nano GmbH (DE)

10:10 **Coffee Break / Exhibition**

SESSION 4 MATERIAL CHARACTERIZATION AND MECHANICAL TESTING

10:50 **Keynote: C-SOI as a New Generation MEMS Sensor Platform, Current Status and Challenges**
Markku Tilli, Okmetic (FI)

11:30 **Influence of Sample Preparation on Intrinsic Stress inside a Model Chip**
Harald Preu, Infineon (DE)

11:50 **Room Temperature Oxide-Free Semiconductor Bonded Interfaces**
Viorel Dragoi, EV Group (AT)

12:10 **Nanoscale Stress Measurements Using Raman Spectroscopy**
Thomas Nuytten, IMEC (BE)

12:30 **Nanobeam Diffraction for Residual Strain Analysis in Materials for Microelectronics**
David Poppitz, Andreas Graff, Fraunhofer IMWS-CAM (DE)

12:50 **Mechanical Integrity Analysis of Crack Stop Features in Chip Designs for 28nm and below**
Michael Hecker, Globalfoundries (DE)

13:10 **Lunch Break / Exhibition**

14:20 **Lab Tours**