

D43D'2017 WORKSHOP

Monday, 26th June, 2017

12:30 - 14:00	welcome Lunch	
13:45 - 14:00	Opening Session	Pascal Vivet, CEA-LETI, France
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Session 1	3D Memory Devices	
	Chair: Jean-Francois Roy, UPMEM, France	
14:00 - 14:30	Non Volatile Memory: a wide spectrum of potential solutions and Leti with a unique approach	Luca Perniola, CEA-LETI, France
14:30 - 15:00	3D Memory : Patent Landscape Analysis	Audrey Bastard, KNOWMADE, France
15:00 - 15:30	Power, Heat, Reliability: A 3D Physical Design Perspective	Aida Todri, LIRMM, France

15:30 - 16:00 **COFFEE BREAK**

Session 2	3D Emerging Memories and New Architecture Paradigms	
	Chair : Bastien Giraud, CEA-LETI, France	
16:00 - 16:30	Abundant-Data Computing: The N3XT 1,000X	Subhasish Mitra, Stanford University, France
16:30 - 17:00	Novel 3D technologies for the transition to cognitive systems	Bert Offrein, IBM Zurich, Switzerland
17:00 - 17:30	3D Memories: Now and Then!	Christian Weiss, University of Kaiserslautern, Germany

Tuesday, 27th June, 2017

- 1	8:45 - 9:00	Registration and Opening	Pascal Vivet, CEA-LETI, France
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Session 3	3D Technology Landscape and Advanced Imagers	
	Chair : Didier Lattard, CEA-LETI, France	
9:00 - 9:30	Evolution and adoption of 3D TSV and 2.5D technology: From high performance to consumers applications	Emilie Jolivet, YOLE, France
9:30 - 10:00	Advanced 3D technologies for innovative 3D architecture	S. Cheramy, CEA-LETI, France
10:00 - 10:30	Smart imager: Computer vision integration with 3D stack	Jerome Chaussat, STMicroelectronics, France

10:30 - 11:00 **COFFEE BREAK**

Session 4	3D for High Performance Computing	
	Chair : Patrick Blouet, STMicroelectronics, France	
11:00 - 11:30	Emerging architectures for computing with 3D silicon integration	Denis Dutoit, CEA-LETI, France
1 1 1 1 20 - 1 7 100	2.5D/3D Systems with Silicon Photonic NoCs: Efficient Thermal Management, Opportunities, and Challenges	Ayse Coskun, University of Boston, USA
12:00 - 12:30	In-memory Computing with Majority RRAM Operations	Pierre-Emmanuel Gaillardon, University of Utah, USA

12:30 - 14:00 **LUNCH BREAK**

Session 5	Monolithic 3D : from Technology to Advanced Design	
	Chair: Sébastien Thuriès, CEA-LETI, France	
14:00 - 14:30	Technological status of monolithic 3D	Perrine Batude, CEA-LETI, France
	Power, performance and area benefits of monolithic 3D-IC for equivalent Moore's Law scaling	Shidhartha Das, ARM, UK

15:00 - 15:30 On Efficient Ways to Use Commercial 2D IC EDA Tools to Build Commercial Quality Monolithic 3D IC Designs	ung Kyu Lim, Georgia Institute of Technology, USA
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15:30 - 16:00 **COFFEE BREAK**

Session 6	3D Design and Tools	
	Chair : Sung Kyu Lim, Georgia Institute of Technology, USA	
16:00 - 16:25	Design Considerations and Noise Issues for Heterogeneous Contactless 3-D ICs	Vasilis Pavlidis, Manchester University, UK
16:25 - 16:50	Chip-to-chip communication on interposer based systems	Andy Heinig, Fraunhofer Institute, Germany
16:50 - 17:10	Modeling Challenges in Electrical Design of 3DIC based Systems	Dusan Petranovic, Mentor Graphics, USA
17:10 - 17:30	HANOI Whiteboard Flow: the Seed for 2.5D-IC Implementation	Anna Fontanelli, Monozukiri, Italy

17:30	CLOSING REMARKS
17.50	CLOSHING INLINIARIAS