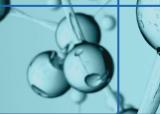
7th International Workshop on Characterization and Modeling of Memory devices



Sept 29th- 30th 2016 | Università degli Studi di Milano - Bicocca Building U6 | Room M. Martini | Floor -1 | Piazza dell'Ateneo Nuovo 1



Sept 29th

10.00 a.m. Registration

10.30 Welcome

Marco **Bernasconi**, Università degli Studi di Milano - Bicocca Paolo Fantini. Micron Semiconductor Italia

10.45 Workshop Introduction

Chandra Mouli, Micron Semiconductor Italia

11.00 a.m. 1st session: Phase change materials and devices

11.00 Density functional simulations of phase change material / graphene heterostructures - Jaakko Akola, Tampere University - Finland

11.35 Fragile-Strong behavior of telluride alloys and its importance for phase change application - Pierre Lucas, University of Arizona - USA

12.10 Lunch

1.45 p.m. 2nd session: Phase change materials and devices

1.45 The role of disorder on electronic, ferroelectric and structural changes in phase change materials - Ritesh Agarwal, University of Pennsylvania - USA

2.20 Metal-Insulator Transition Driven by Vacancy Ordering in GeSbTe Phase Change Materials Investigated via Electrical Transport, Terahertz and Raman spectroscopy - Raffaella Calarco, PDI - Berlin - Germany

2.55 Chalcogenide-Based Phase-Change Switches for RF Switching Applications - Nabil **El-Hinnawy**, Northrop Grumman - Maryland - USA

3.30 p.m. 3rd session: Models for Percolative Conduction

3.30 Statistical Simulation of Percolative Conduction in poly-Si channels for NVM applications - Salvatore Amoroso, GSS Ltd & Glasgow University - UK

4.00 Coffee Break

Sept 30th

8.30 a.m. 4th session: Magnetic and Ferroelectric Memories

8.30 First principles multi-scale theory for current-driven magnetization dynamics - Stefano Sanvito, Trinity College -**Dublin - Ireland**

Nanosecond-Scale **Switching** Perpendicularly Magnetized STT-MRAM Cells - Thibaut Devolder, CNRS - Paris - France

9.40 The negative aspects at the origin of hysteresis effects in FeFETs and niobium threshold switches - Stefan Slesazeck, NaMLab - Dresden - Germany

10.15 Coffee Break

10.45 a.m. 5th session: Resistive Memories and Selectors

10.45 Bi-directional Threshold Selector Devices for 3D X-point Memory - Hyunsang Hwang, Pohang University of Science and Technology Postech - Korea

11.20 Visualization, modeling and control of filament growth in resistive-memories (RRAMs) towards commercial applications -Wei Lu, University of Michigan & Crossbar Inc. - USA

11.55 Studying ReRAM memories at the nanoscale using the conductive AFM - Mario Lanza, Inst. of Functional Nano & Soft Materials of Soochow University - China

12.30 Carbon-based resistive memories - Federico Zipoli, IBM Zurich - Switzerland

1.05 p.m. Lunch & Adjourn

More info available on the workshop website at www.iwcm2.eu

Partners









