# IWCM<sup>2</sup> WORKSHOP 2019

# INTERNATIONAL WORKSHOP ON CHARACTERIZATION AND MODELING OF MEMORY DEVICES

October 3<sup>rd</sup>-4<sup>th</sup>, Politecnico di Milano, Milan, Italy

3 October 2019 – Aula De Donato, P.zza Leonardo da Vinci 32

# 09:30 Registration

10:10 Welcome

# 1<sup>st</sup> Session: Plenary Talks

10:30 Memory Technology as a Key Enabler for Future Computing Systems - Greg **Atwood**, Micron Technology -USA

11:15 Novel Technologies for Artificial Intelligence: prospects and challenges - Stefano **Ambrogio**, IBM Almaden Research Center - USA

#### 12:00 **Lunch**

## 2<sup>nd</sup> session: Phase Change Memories

13:45 Chemical design principles for cache-type Sc-Sb-Te phase-change materials - Wei **Zhang**, Xi'an Jiaotong University - China

14:20 *Embedded Phase Change Memories for 2020s* - Paola **Zuliani**, ST Microelectronics - Italy

#### 14:55 Coffee Break

#### 3<sup>rd</sup> Session: Atomistic simulations

15:30 First-principles modeling of OTS chalcogenides for SELECTORS - Sergiu **Clima**, University of Antwerp, Belgium

16:05 Defects in Crystalline and Amorphous gate oxide films - Alex **Schluger**, Department of Physics and Astronomy, UCL - UK

#### 16:40 Social Program









4 October 2019 – Aula De Donato, P.zza Leonardo da Vinci 32

# 4<sup>th</sup> Session: Plenary talks

09:00 Discovery and characterization of novel materials for electronic applications - Nicola **Marzari**, École Polytechnique Fédérale de Lausanne - CH 09:45 Memory-Centric Artificial Intelligence with Memory Nanodevices - Damien **Querlioz**, Université Paris Saclay -France

#### 10:30 Coffee Break

# 5<sup>th</sup> Session: Emerging neuromorphic devices

11:00 Intelligent Computing in Memristors - Huaqiang **Wu**, Tsinghua University - China

11:35 Organic Electronics for Neuromorphic Computing -Yoeri **van de Burgt**, Eindhoven University of Technology - NL

#### 12:10 Lunch

## 6<sup>th</sup> Session: Emerging memory materials

14:00 Antiferromagnetic spintronics - Tomas **Jungwirth**, Institute of Physics of the Czech Academy of Sciences – Czech Republic

14:35 Interoperable solutions for the simulation of phase change memories - Arrigo **Calzolari**, CNR - Italy

15:10 Adjourn

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

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