Monday 30th September 2013

8.00 am: Registration – Welcome coffee

8.45 am: Workshop opening (Luc JEANNEROT, ARCSI and Stéphane DAUZERE-PERES, Ecole des Mines de Saint-Etienne)

9.00 am: Keynote speaker, Jean DEVIN, STMicroelectronics, France «A Quiz about Embedded NVM today’s challenges»

Session 1 - Part 1: Embedded flash memories Technology providers: state of the art and trends

Chairpersons: Christian DUPUY (StarChip), Philippe BOIVIN (STMicroelectronics)

9.30 am: «The Scalability of the Split-Gate NOR Flash for future SoC applications»
Weiran KONG, Grace Semiconductor Manufacturing Corporation, China

9.55 am: «Application and cost-down requirements for next generation embedded non-volatile memories»
Dr. Thomas WILLE, NXP Semiconductors, Germany

10.20 am: «Challenges of embedded NVM in the automotive field»
Alfonso MAURELLI, STMicroelectronics, Italy

10.45 am: Break

Session 2 - Part 1: Emerging and leading-edge technologies for Non-Volatile Memories: PCM

Chairpersons: Didier SAVE (Gemalto), Bertrand SAILLET (LFoundry)

11.10 am: «Scaling challenges for MOS-selected Phase Change Memory»
Paola ZULIANI, STMicroelectronics, Italy

11.35 am: «PCM Role in the Memory Technology Evolution»
Roberto BEZ, Micron, Italy

12.00 pm: «Advanced thin film technology for NVM development and pilot production»
Mohamed ELGHAZZALI, Oerlikon, Liechtenstein

12.25 pm: Lunch / Poster session

Session 2 - Part 2: Emerging and leading-edge technologies for Non-Volatile Memories: RRAM

Chairpersons: Didier SAVE (Gemalto), Bertrand SAILLET (LFoundry)

2.00 pm: «RRAM as an Embedded NVM Technology»
Christophe CHEVALLIER, Rambus, USA

2.25 pm: «Innovative materials & precoding methods to address the packaging thermal issue in RRAM»
Luca PERNIOLA, CEA-LETI, France

PROGRAMME
2.50 pm: «ASM ALD Solutions: Taking Memory to the next Level»
Robin ROELOFS, ASM, Belgium

3.15 pm: Break

Session 2 - Part 3: Emerging and leading-edge technologies for Non Volatile Memories: RRAM and others
Chairpersons: Yves LEDUC (Polytech Sophia, Univ. of Nice), Damien DELERUYELLE (IM2NP, Aix-Marseille Univ.)

3.40 pm: «Magnetic Logic Unit (MLUTM): status and perspectives»
Ken MACKAY, Crocus Technology, USA/ France

4.05 pm: «Scalable, low voltage, low cost technologies for embedded NVM applications»
Igor KOZUNOV, Cypress Semiconductor, USA

4.30 pm: «Advances in Carbon Nanotube Memory (NRM)»
Thomas RUECKES, Nantero, USA

4.55 pm: Poster session

5.30 pm: End of the conference

8.00 pm: Conference dinner

Tuesday 1st October 2013

8.00 am: Registration - Welcome coffee
10.35 am: «Printed Technologies at CEA Liten: Applications to Non-Volatile Memories on Flexible Substrate»
Romain COPPARD, CEA-Liten, France

11.00 am: «Materials and Integration of e-NVM: Classic and New Approaches»
Er-Xuang PING, Applied Materials, USA

Session 3 - Part 1: Device and architectures
Chairpersons: Jean-Michel PORTAL (IM2NP, Aix-Marseille Univ.), Arnaud VIRAZEL (LIRMM)

11.25 am: «Understanding operation and reliability of Hf-based RRAM Devices Through a Microscopic, Material Related Physical Model»
Andrea PADOVANI, University of Modena and Reggio Emilia, Italy

11.50 am: «Emerging Resistive Memories: Compact Models»
Marc BOCQUET, IM2NP, France

12.15 pm: «Design Exploration of Hybrid ICs using CMOS and ReRAM Technologies»
Olivier THOMAS, CEA-Leti, France

12.40 pm: Lunch / Poster Session

Session 3 - Part 2: Device and architectures
Chairpersons: Jean-Michel PORTAL (IM2NP, Aix-Marseille Univ.), Arnaud VIRAZEL (LIRMM)

2.00 pm: «Magnetic Memory and embedded processors»
Lionel TORRES, Laboratory of Information Technology, Robotics and Microelectronics of Montpellier, France

2.25 pm: «Testing and Tolerating Faults in TAS-MRAMs»
Valentin GHERMAN/Joao AZEVEDO, CEA List / LIRMM, France

2.50 pm: «Non-Volatile memories: a breakthrough for cognitive computing»
Damien QUERLIOZ, Institut d’Electronique Fondamentale, France

3.15 pm: Break

Session 4: Users, applications and security
Chairpersons: Assia TRIA (CEA-EMSE), Didier NEE (Inside Secure)

3.40 pm: «Looking for low power, fast and cost efficient e-NVM for digital security»
Pascal LEROY, Gemalto, France

4.05 pm: «True and false ideas about the eligibility of leading edge NVM technologies for automotive applications»
Hugues RAYNAL, Continental, France

4.30 pm: «Recovering data from flash memories»
Lieutenant Matthieu REGNEREY, Institut de Recherche Criminelle de la Gendarmerie Nationale, France

4.55 pm: End of the day

5.00 pm: Conference closure