



Workshop 2, Benchmarking of new Beyond CMOS device/design concepts

13-14 October 2011

Hotel Divani Caravel,

Vassileos Alexandrou Av. 2, Athens, Greece

Tentative Programme

Wednesday 12 October 2011

- 20.30** **Welcome cocktail and workshop introduction**
Clivia Marfa Sotomayor Torres - Catalan Institute of Nanotechnology, Barcelona, Spain, Coordinator of NANOTECH, and Androula Nassiopoulou - National Centre for Scientific Research "Demokritos", Athens, Greece
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Thursday 13 October 2011

- 08.30-09.00** **Registration**
- 09.00-09.05** **Introduction to day 1**
Jouni Ahopelto - VTT Technical Research Centre of Finland, and Mart Graef - Technical University of Delft
- 09.05-10.05** **Session 1 – Molecular Electronics**
Speaker: Dominique Vuillaume - CNRS, Lille, France (20 minutes)
Discussant: Clivia Marfa Sotomayor Torres - Catalan Institute of Nanotechnology, Barcelona, Spain (5 minutes)
Rapporteur: tbc- Intel Corporation
Group discussion (35 minutes)
- 10.05-11.05** **Session 2 – MemS**
Speaker: Lisa Sarro - Technical University of Delft, The Netherlands (20 minutes)
Discussant: Piotr Grabiec - Institute of Electron Technology, Warsaw, Poland (5 minutes)
Rapporteur: tbc
Group discussion (35 minutes)
- 11.05-11.30** **Snapshot poster introduction**
Speakers: all attendants presenting a poster
- 11.30-12.00** **Coffee Break & Posters**
- 12.00-13.00** **Session 3 – Solid-State Quantum Computing**
Speaker: Jaw-Shen Tsai - NEC & The Riken Institute for Physical and Chemical Research, Ibaraki, Japan (20 minutes)
Discussant: Per Delsing - Chalmers University of Technology, Gothenburg, Sweden (5 minutes)
Rapporteur: tbc
Group discussion (35 minutes)
- 13.00-14.00** **Session 4 – Spintronics**
Speaker: Johan Åkerman - University of Gothenburg & NanoSC, Sweden (20 minutes)
Discussant: Christian Pithan - Forschungszentrum Juelich GmbH, Germany (5 minutes)
Rapporteur: tbc
Group discussion (35 minutes)
- 14.00-15.20** **Lunch and networking**
- 15.20-16.20** **Session 5 – Nanowires**
Speaker: Walter Riess - IBM, Zurich, Switzerland (20 minutes)



Discussant: Isabelle Ferain- Tyndall National Institute at University College Cork, Ireland (5 minutes)
Rapporteur: Androula Nassiopoulou - National Centre for Scientific Research "Demokritos", Athens, Greece
Group discussion (35 minutes)

- 16.20-17.20** **Session 6 – Memristors**
Speaker: Julie Grollier - Centre National de la Recherche Cientifique-Thales, Palaiseau, France (20 minutes) (TBC)
Discussant: Dag Winkler - Chalmers University of Technology, Gothenburg, Sweden (5 minutes)
Rapporteur: tbc - École Polytechnique Fédérale de Lausanne, Switzerland
Group discussion (35 minutes)
- 17.20-17.50** **Coffee Break & Posters**
- 17.50-18.00** **"Guardian Angels" - a short introduction to the Flagship pilot coordination action**
Speaker: Adrian Ionescu, École Polytechnique Fédérale de Lausanne, Switzerland
- 18.00-18.10** **"Graphene-CA" - a short introduction to the Flagship pilot coordination action**
Speaker: Jari Kinaret - Chalmers University of Technology, Gothenburg, Sweden
- 18.10-19.10** **Session 7 – Graphene**
Speaker: Jari Kinaret - Chalmers University of Technology, Gothenburg, Sweden (20 minutes)
Discussant: Fuccio Cristiano - CNRS LAAS, Toulouse, France (5 minutes)
Rapporteur: Wolfgang Rosenstiel - University of Tuebingen-Edacentrum GmbH, Hannover, Germany
Group discussion (35 minutes)
- 19.10-19.30** **Wrap-up and conclusion of the day. All rapporteurs (5 minutes each)**
- 20.30** **Workshop Dinner**
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Friday 14 October 2011

- 09.00-10.30** **Panel Discussion on Design**
Chair person: Dann Herr - Semiconductor research Corporation, Palo Alto, CA, U.S.A (tbc)
Introduction speaker: Diederik Verkest, Interuniversity Microelectronics Center – Leuven, Belgium (tbc)
Discussants: Paolo Lugli - Technical University of Munich, Germany
Sandip Tiwari - University of Cornell, NY, U.S.A
Wolfgang Rosenstiel - University of Tuebingen-Edacentrum GmbH, Hannover, Germany
- 10.30-11.30** **Parallel working groups on Molecular Electronics, Mems, and Solid State Quantum Computing**
Three separate rooms, maximum 15 participants per session, chair persons to be confirmed
- 11.30-11.50** **Coffee Break & Posters**
- 11.50-12.50** **Parallel working groups on Spintronics and Nanowires**
Three separate rooms, maximum 15 participants per session, chair persons to be confirmed
- 12.50-13.50** **Parallel discussion on Memristors and graphene**
Three separate rooms, maximum 15 participants per session, chair persons to be confirmed
- 13.50-14.20** **Conclusions of working groups by rapporteurs (5 minutes each)**
- 14.20** **Closing remarks of workshop 2, Next steps and announcement of Workshop 3**
Jouni Ahopelto - VTT Technical Research Centre of Finland, and Mart Graef - Technical University of Delft
- 14.30** **Lunch**
- 15.30** **Excursion**