

Topical Issue: “2012 International Semiconductor Conference Dresden-Grenoble” (2012 ISCDG)

Grenoble and Dresden are the two major European Semiconductor Research, Development and Production sites. In the preceding editions of 2009 and 2011, the conference was named “Semiconductor Conference Dresden”. The objective of the “International Semiconductor Conference Dresden-Grenoble” (ISCDG) is to enhance the visibility of both cities international excellence. The venue will be alternating in between Grenoble and Dresden every year. The 2012 ISCDG edition was held in Grenoble.

The main areas covered by the conference are in the field of materials, devices and systems science, engineering and architectures and their characterization, namely:

- Integrated Circuit and System Design.
- More Moore and Beyond Moore Devices Technologies and Architectures.
- Memory Technologies.
- More than Moore Technologies.
- Interconnection and Packaging Technologies.
- Optical Devices and Photonics.
- Characterization, Quality and Reliability.
- Modeling and Simulation.

During the 2012 ISCDG conference held in Grenoble, there have been 5 plenary talks, 10 invited papers, 28 oral contributed papers and 20 poster contributed papers. These presentations originated from various countries such as 27 from France, 19 from Germany, 2 from USA, 2 from Japan, 2 from Taiwan, 2 from Korea, 2 from Spain, 1 from China, 1 from Egypt, 1 from Czech Republic, 1 from Ireland, 1 from Portugal and 1 from Romania. The presentations were organized in 11 sessions (A circuits, B CMOS, C More than Moore, D PV and Photonics, E Characterization and P Poster).

Out of the 43 plenary, invited or oral papers, seven were selected to form a special issue section in the European Physical Journal on Applied Physics. Three papers are in the field of More Than Moore Technologies research (C.L. Hsu et al., G. Ardila et al., C. O’Mathuna et al.), two papers are related to Integrated Circuit and System Design (F. Ellinger et al., S. Yamamoto et al.), one paper is in the field of new resistive Memory Technologies (A. Heitmann and T.G. Noll) and the last one is in the area of Optical Devices and Photonics (J.M. Verilhac).

The Guest Editors:

G rard Ghibaudo,
Grenoble-INP, Technical Program Chair

Francis Balestra,
Grenoble-INP, Publications Chair

Simon Deleonibus,
CEA-LETI, General Chair