

**Invited Session****CAD Challenges for Leading-Edge Multimedia Designs****Chair/Organizer:**

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Multimedia designs are among the most complex leading-edge integrated circuits that are made today. In this session, CAD architects for three industry-leading multimedia products will discuss new challenges that arise across the CAD flow – from system and architecture level through physical implementation - as we approach billion-transistor devices. The first talk will focus on system-level specification and codesign of embedded software for a multimedia processor. The second talk will discuss new time and space challenges for verification methodologies, which must be met to address the requirements of graphics processor time-to-market pressures. The third talk will discuss CAD challenges unique to a pioneering high-speed, multi-core processing engine for gaming and entertainment platforms.

**23.1 Addressing the Challenge of Low Power, High Performance and Scalable Multimedia Acceleration in the Nomadik Processor****Speaker:** Patrick Blouet, STMicroelectronics, Crolles, France**23.2 Next-Generation Multimedia Designs: Verification Needs****Speaker:** Ira Chayut, nVidia, Santa Clara, CA**23.3 CAD Challenges for Designing a High Frequency Multi-Core SoC Implementation of a First-Generation CELL Processor****Speaker:** Dac Pham, IBM Corp., Austin, TX