

HiPEAC Computing Systems Week

Barcelona Multicore Workshop 2011



Barcelona, 2–4 November 2011



Registration: <http://www.hipeac.net/csw/barcelona2011/registration>

BMW Abstracts and Bio: <http://www.bsccsrc.eu/media/events/barcelona-multicore-workshop-2011>

Wednesday, 2nd

<i>Auditori, Vertex Building, UPC Campus</i>	
8:00 – 8:45	Registration
8:45 – 9:00	Welcome - Mateo Valero, UPC/BSC and Fabrizio Gagliardi, Microsoft
9:00 – 11:00	BMW 2011 Session I – Computing Landscape Chair: Tim Harris - Don Grice (IBM) Dealing with the Massive Data Generated by Many Core Systems - Jean Pierre Panziera (Bull) Many-Core architectures for HPC - Krste Asanovic (U. of California, Berkeley) The Berkeley Parallel Computing Laboratory - Jim Larus (Microsoft Research) Orleans: Cloud Computing for Everyone
11:00 – 11:30	Coffee break
11:30 – 12:30	BSC-Microsoft Research Centre 5th Anniversary - Lluís Rovira (General Manager of i-Cerca, Generalitat de Catalunya) - Mateo Valero (UPC/BSC) - María Garaña (President of Microsoft Spain) - Tony Hey (Microsoft Corporate Vice President Research Connections) - Fabrizio Gagliardi (Microsoft External Research Director, EMEA)
13:00 – 14:00	Lunch
14:00 – 16:00	BMW 2011 Session II – Computer Architecture Chair: Per Stenström - Gurindar Sohi (U. of Wisconsin) Energy-Efficient Parallel Execution - Yale Patt (U. of Texas, Austin) Obtaining High Performance in the Multi-core Era, What is the role of the Transformation Hierarchy - Walid Najjar (U. of California, Riverside) Customized Data Paths for Latency Masking Threads on FPGAs - Andrew Herbert (Edsac Replica Project & U. College London.) The Edsac Replica Project
16:00 – 16:30	Coffee break
16:30 – 18:00	BMW 2011 Session III - PMOS Programming Models and Operating Systems Chair: Georgi Gaydadjiev - Christos Kozirakis (Google and Stanford U.) Scaling Up - Jesus Labarta (BSC) Extending the scope and support for StarSs - Burton Smith (Microsoft) Fine-Grain Communication
18:15– 19:00	(optional visit to MareNostrum)

Thursday, 3rd, am

<i>Auditori, Vertex Building, UPC Campus</i>	
9:00 – 11:00	BMW 2011 Session IV - Horizons in parallel computing Chair: Manolis Katevenis - András Vajda (Ericsson) Embracing Uncertainty: Probabilistic Parallelism - David Kirk (NVIDIA) GPUs Revolutionized Graphics and Impacted Parallel Computing; Now, Let's go after Science! - Krisztian Flautner (ARM) Heterogeneity to the Rescue - Karl Solchenbach (Intel) The Intel Many-Core Architecture
11:00 – 11:15	Coffee break
11:15 – 13:15	BMW 2011 Panel Session Chair: Burton Smith Roadmaps and Directions on Future Europe Research: Horizons2020, EESI Roadmap, HPC Planet, HiPEAC Roadmap, USA Roadmaps.. - Panagiotis Tsarchopoulos (European Commission) - Sergi Girona (BSC) - Mark Sawyer (EPCC) - Marc Duranton (CEA) - Krste Asanovic (U. of California, Berkeley)
13:00 – 14:00	Lunch

Thursday, 3rd, pm

13:00 – 14:00	Lunch at Auditori, Vertex Building, UPC Campus	
	<i>Aula Master, A3 Building, UPC Campus</i>	<i>C6-E101</i>
14:00 – 15:00	<p>HiPEAC General Assembly Chair: Koen De Bosschere Presentation of the HiPEAC Roadmap. The HiPEAC 2012 Conference and Workshops. Information about HiPEAC2 achievements and the next HiPEAC3 era. - Marc Duranton (CEA)</p>	
15:00 – 15:30	Coffee break	
15:30 – 17:00	<p>CSW Session I: I/O, network, and storage virtualization Chair: Angelos Bilas - Muli Ben-Yehuda (Technion and IBM Research) Bare-Metal Performance for x86 I/O Virtualization - Andras Vajda (Ericsson): Scaling the data-center network: how to enable the next 100.000 Virtual Machines?</p>	<p>CSW Session II: Interleaving of power and reliability Chair: Yiannakis Sazeides - Avi Mendelson (Microsoft) Reliability and fault-tolerance in future large-scale CMP architecture -- the Teraflux approach - Ioannis Sourdis (Chalmers) FP7 Project Desyre - Grigorios Magklis (Intel) Co-designed Virtual Machines: A different view on Computer Architecture</p>
17:00 – 18:30	<p>CSW Session III: Languages and tools for heterogeneous and GPU based multicores Chair: Mike O'Boyle - Keynote: Anton Lokhmotov (ARM): The landscape of accelerator programming: a view from ARM - Christoph Dubach (U. of Edinburgh): Lime to OpenCL, a Liquid Metal approach - Rosa M. Badia (BSC): Dataflow programming models and OmpSs. - Adam Betts (University of York): An optimizing compiler for parallel unstructured-mesh computations - Stefan Schurmans (ICE): Programming MPSoCs using MAPS</p>	<p>Interleaving of power and reliability (cont.) - Jaume Abella (BSC) Reliability and Power in Safety-Critical Systems: A Hardware Perspective - Yanos Sazeides (U. Cyprus) Power and Reliability Trade-offs: from Processor to DataCenter - Stefanos Kaxiras (Upsala) - Discussion/Updates</p>
21:00 –	Social Dinner	

Friday, 4th

	<i>Aula Master, A3 Building, UPC Campus</i>	<i>C6-E101</i>
9:00 – 10:30	<p>CSW Session IV: Reconfigurable cluster Chair: Carlo Galuzzi</p>	<p>CSW Session VI: Education Task Force Chair: Koen De Bosschere - Dare to venture, the student-entrepreneurship project of Ghent University</p>
10:30 – 11:00	Coffee break	
11:00 – 13:00	<p>CSW Session V: Design and Simulation Chair: Rainer Leupers - Joao Cardoso (Universidade do Porto): LARA: An Aspect-Oriented Domain-Specific Language to Control and Guide Design Flows - Philippe Coussy (Universite de Bretagne-Sud): High-Level Synthesis with GAUT - Christian de Schryver (TU Kaiserslautern): High-Performance Hardware Acceleration for Asset Simulations - Ola Dah (Linkoping University): System integration at ISY, Linkoping University - Juan Eusse (RWTH Aachen University): Hybrid Simulation Technology for extensible cores and full system simulation of complex MPSoCs</p>	<p>CSW Session VII: MiniR compilation meeting Chair: Albert Cohen - INRIA, Kalray and STMicroelectronics present a compiler exchange format called MiniR.</p>
13:00 – 14:00	Lunch	
14:00 – 15:30	(optional visit to MareNostrum)	