

### 3rd edition of the ACM Summer School on HPC Architectures for AI and Dedicated Applications

All times Central European Summer Time (UTC +2)

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
29 Aug	30 Aug	31 Aug		01-sep 02-sep
9:00 AM - 9:15 AM	9:00 AM - 9:10 AM	9:00 AM - 9:10 AM	9:00 AM - 9:10 AM	9:00 AM - 9:10 AM
Welcome to the school, by Fabrizio Gagliardi and Eduard Ayguadé	Opening of the day, by Fabrizio Gagliardi and Eduard Ayguadé	Opening of the day, by Fabrizio Gagliardi and Eduard Ayguadé	Opening of the day, by Fabrizio Gagliardi and Eduard Ayguadé	Opening of the day, by Fabrizio Gagliardi and Eduard Ayguadé
9:15 AM - 10:30 PM	9:10 AM - 10:30 PM	9:10 AM - 10:30 PM	9:10 AM - 10:30 PM	9:10 AM - 10:30 PM
Luca Benini (ETHZ / University of Bologna) Lecture: Specializing Processors for ML	Jesús Labarta, Filippo Mantovani & Roger Ferrer (BSC) Lecture: Vector Acceleration	Rosa M. Badia (BSC) Talk: Developing complex workflows that integrate HPC, Artificial Intelligence and Data Analytics	Mauro Olivieri (Rome Sapienza University) Lecture: Customised vector acceleration in edge-computing RISC-V soft-cores	Uri Weiser (Technion IIT) Tutorial: Innovation path: From General Purpose CPU to Machine Learning Accelerator
10:30 PM - 11:00 PM	10:30 PM - 11:00 PM	10:30 PM - 11:00 PM	10:30 PM - 11:00 PM	10:30 PM - 11:00 PM
<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>
11:00 AM - 12:30 PM	11:00 AM - 12:30 PM	11:00 AM - 12:30 PM	11:00 AM - 12:30 PM	11:00 AM - 12:30 PM
Luca Benini (ETHZ / University of Bologna) Lecture: From Single to Multi-Core Heterogeneous SoCs for ML	Jesús Labarta, Filippo Mantovani & Roger Ferrer (BSC) Lecture: Vector Acceleration	Josep LL. Berral (UPC) Lecture: Distributed Data Analytics in Supercomputing Systems	Mauro Olivieri (Rome Sapienza University) Lecture: Customised vector acceleration in edge-computing RISC-V soft-cores	Per Stenström (Chalmers University of Technology) Tutorial on The European Processor Initiative: The Memory Subsystem of EPAC
12:30 PM - 1:30 PM	12:30 PM - 1:30 PM	12:30 PM - 1:30 PM	12:30 PM - 1:30 PM	12:30 PM - 1:30 PM
<i>Lunch break</i>	<i>Lunch break</i>	<i>Lunch break</i>	<i>Lunch break</i>	<i>Lunch break</i>
1:30 PM - 3:00 PM	1:30 PM - 3:00 PM	1:30 PM - 3:00 PM	1:30 PM - 3:00 PM	1:30 PM - 2:30 PM
Luca Benini (ETHZ / University of Bologna) Lecture: Scaling up ML Hardware Architectures	Jesús Labarta, Filippo Mantovani & Roger Ferrer (BSC) Lecture: Vector Acceleration	Jordi Torres (UPC) Lecture: Practical Introduction to programming Deep Learning on a BSC Supercomputer	Valerie Taylor (ANL) Lecture: Exploring Energy-Efficiency Tradeoffs for Parallel Scientific Applications	Industrial view of the future of HPC: Huawei, IBM 2:30 PM - 4:00 PM
3:00 PM - 3:30 PM	3:00 PM - 3:30 PM	3:00 PM - 3:30 PM	3:00 PM - 3:30 PM	
<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>	
3:30 PM - 5:00 PM	3:30 PM - 5:00 PM	3:30 PM - 4:40 PM	3:30 PM - 4:30 PM	4:00 PM - 4:30 PM
Charlotte Frenkel (Delft University of Technology) Lecture: Neuromorphic engineering for low-power edge intelligence	Jesús Labarta, Filippo Mantovani & Roger Ferrer (BSC) Lecture: Vector Acceleration	Josep LL. Berral (UPC) Lecture: Distributed Data Analytics in Supercomputing Systems	Carme Torras Presentation	4:30 PM - 6:00 PM
5:00 PM - 6:00 PM	5:00 PM - 6:00 PM			
Mario Kovač (Zagreb University) EPI Presentation: European Processor Initiative: cornerstone of EU digital agenda and EU digital sovereignty	Ruth Lennon (ACM) Presentation of ACM-W	Jordi Torres (UPC) Lecture: Practical Introduction to programming Deep Learning on a BSC Supercomputer	Yannis Ioannidis (Athens U.) R. Tak	Closing Lecture by Mateo Valero (BSC Director). Student Diploma Ceremony
6:00 PM - 8:00 PM	6:00 PM - 8:00 PM	6:00 PM - 7:00 PM	6:00 PM - 7:00 PM	6:00 PM - 8:00 PM
<i>Welcome Reception</i>	<i>Cheese &amp; Beer Party</i>	Visit Mare Nostrum	<i>Dinner box + Transfer to the hotel</i>	<i>Farewell Party</i>
		7:00 PM - 8:00 PM		
8:00 PM - 8:30 PM	8:00 PM - 8:30 PM	<i>Dinner box + Transfer to the hotel</i>	Free time	8:00 PM
<i>Transfer to the hotel</i>	<i>Transfer to the hotel</i>	Free time		<i>Transfer to the hotel</i>