ACM Europe Summer School on HPC Computer Architectures for AI and Dedicated Applications

Objectives

The 2021 ACM Europe Summer School on "HPC Computer Architectures for AI and Dedicated Applications" will take place 30 August - 3 September, and it is hosted by Barcelona Supercomputing Center (BSC-CNS) and the Universitat Politècnica de Catalunya (UPC). This edition of the school will be fully remote.

ACM, the Association for Computing Machinery, is the main sponsor of the school. Industry sponsors are Almaviva and Huawei.

The summer school addresses young computer science researchers and engineers, and it is open to outstanding MSc students and senior undergraduate students. Accepted participants will attend formal lectures and invited talks.

Prof. Luca Cardelli (University of Oxford) will give a keynote lecture on Molecular Computing. Uri Weiser (Technion) will address state-of-the-art architectures for AI, followed by two sessions dedicated to the design of RISC V accelerators, by Luca Benini (ETHZ and University of Bologna) and Jesús Labarta (BSC). Jordi Torres and Josep Lluis Berral (BSC and UPC) will cover topics related to software stack for AI, by addressing deep learning and distributed data analytics in supercomputing systems. The closing session of the school will include a lecture by Mauro Olivieri (Sapienza University) and it will be dedicated to applications for AI, focusing on Edge computing and the automotive industry.

The summer school also includes a poster session. Accepted students will be encouraged to work on a poster on their current research, and submit it for evaluation. The best posters will get a prize, announced at the end of the school.

Upon completion of the school, all attendees will receive a certificate and a complimentary ACM student membership. Based on the scores obtained in the practical exercises, the best performing students will receive a certificate of honor. Additionally, they will be invited to interviews with the industry sponsors, in view of a possible internship.

The school chairperson is Prof. Mateo Valero (Director of the Barcelona Supercomputing Center, ACM – IEEE CS Eckert-Mauchly Award recipient, ACM Fellow, and ERC grantee) and Prof. Josep Fernandez (CS Dean, Facultat d'Informatica de Barcelona).

The local organizing committee is led by Prof. Eduard Ayguadé, UPC, and Dr. Fabrizio Gagliardi, BSC and ACM.

The online application form is available via the following link:
https://services.acm.org/hpc_summer_school/summer_school.cfm.

Registration will be open until **15 July**, and accepted candidates will be informed by **1 August**.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación