

Arm SVE Hackathon 2021

Objectives

This hackathon targets application developers that are interested in investigating the impact of novel SVE extensions in their High Performance Computing (HPC) and Machine Learning (ML) applications. Arm researchers and engineers will describe the different HPC tools available from Arm (including compilers, libraries, debugging and profiling tools) to explore the benefits of SVE extensions in a particular application. Also, they will guide the attendees when porting their applications of interest to the first CPU to implement SVE, the Fujitsu A64FX. Also, representative mini-applications from well-known HPC benchmark suites will be provided to attendees that prefer to explore the benefits SVE capabilities with simpler codes. In order to ease this experience, the organizers will provide access to the CTE-ARM cluster from Fujitsu hosted at BSC facilities with all the required tools already installed.

This event is part of the BSCTech Hackathons 2021 series, supported by the Arm-BSC Centre of Excellence and the Mont-Blanc 2020 European project.





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Requirements

Requirements:

- Master in Computer Sciences or similar.
- Expert programmer in C/C++, OpenMP, MPI
- Experience as a user of an HPC cluster.

Academic Staff



Co-organizers of the Arm SVE Hackathon: Conrad Hillairet (Arm), Phil Ridley (Arm), Javier Setoain (Arm), Andrea Kells (Arm), Filippo Mantovani (BSC) and Miquel Moreto (BSC).

Materials



Slides, source code, and all other training materials can be browsed and downloaded at <https://gitlab.com/arm-hpc/training/arm-sve-tools/>. System information can be found at <https://www.bsc.es/user-support/arm.php>

Further information



Login details will be emailed to the address you provided in your registration. If you have not registered for the event then you will not be able to access the Fujitsu training cluster.

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Source URL (retrieved on 5 Mayo 2024 - 14:20): <https://www.bsc.es/es/news/events/arm-sve-hackathon-2021>