

EuroHPC Summit Week – PRACEdays20 Industrial session, Wednesday 25 March 2020, 14:30 -14:50

Speaker: Denis Dutoit, Research Engineer, Digital systems and integrated circuits Division, LIST Institute, CEA

Title: EPI common platform for a heterogeneous and energy-efficient European processor.

Abstract

The European Processor Initiative (EPI) <https://www.european-processor-initiative.eu/>, gathers 27 partners from 10 European countries, with the aim to bring to the market a low power processor. It gathers experts from the High Performance Computing (HPC) research community, the major supercomputing centres, and the computing and silicon industry as well as the potential scientific and industrial users. Through a co-design approach, EPI currently designs and develops its first-generation chip family. During its first year of activity, EPI project introduces initiative to harmonize the heterogeneous computing environment by defining a common approach: the EPI Common Platform (CP). The EPI CP is currently in development but will include the global architecture specification, common design methodology, and global approach for power management and security. After an introduction on HPC new challenges and associated compute node technology/architecture evolution, this talk will highlight the EPI CP concept and will show how EPI can derive from the CP a roadmap towards a wide range of applications from Exascale computing to embedded HPC.

Bio



Denis Dutoit joined CEA in 2009, after working for STMicroelectronics and STEricsson. In CEA, he has been involved in System-on-a-Chip architecture for computing and 3D Integrated Circuit projects.

After defining the CEA-Leti's roadmap of technologies and solutions for advanced computing, Denis Dutoit is now involved in European Projects in High Performance Computing as coordinator, project leader and SoC architect.

Denis Dutoit leads the "Global Architecture" Work package of the European Processor Initiative Project.