



Contribution ID: 24

Type: **not specified**

HPC INTEGRATION IN DATA INTENSIVE SCIENCE

Monday, 4 September 2023 09:50 (1h 5m)

Abstract: The High Luminosity LHC (HL-LHC) and the Square Kilometre Array (SKA) are both global scientific experiments that will produce Exabytes of data on a similar timescale and will require significant global resources to process and analyse their data. The CERN, SKAO, GÉANT and PRACE consortium was formed to address this burning need for computing resources and lay the foundation for High Performance Computing (HPC) adoption for fundamental research. Challenges ranging across authentication, authorisation, data transfer and access, and benchmarking and accounting are applicable to all big data fields on the path to Exascale computing. In this talk I will discuss developments to support the CERN use case in these cross-cutting areas of HPC integration, and their impact to future sciences.

Lecturer: David Southwick is a Computing Engineer and Fellow at CERN Openlab. During the past decade he has worked in the CMS experiment at the Large Hadron Collider (LHC) in areas of detector design, upgrades, and data acquisition systems. Currently he leads several efforts on the advancement of HPC computing for fundamental and Big Data sciences focused on the topics of data transmission and heterogeneous compute resources on the path to Exascale (Text informed by the Lecturer).

Presenter: Dr SOUTHWICK, David (CERN (CH))

Session Classification: Big Data, Massive and High Performance Computing, Data transmission