Contribution ID: **60** Type: **WP2**

Quasi interactive analysis of big data with high throughput - Initial steps and future perspectives

The ever-growing demand for fast processing of large datasets, as in the upcoming high-luminosity phases at the Large Hadron Collider (LHC), paves the way for innovative approaches. Leveraging the ICSC cloud DataLake model and integrating ongoing experiences in High Energy Physics (HEP) , a path towards an Analysis Facility (AF) is being forged. This new paradigm of data analysis moves from a batch-based to an interactive approach, based on a parallel and geographically distributed back-end.
This use case converges into a flagship activity (flagship UC2.2.2) of the Work Package 2 "Experimental High Energy Physics": firstly exploiting a testbed state-of-the-art prototype infrastructure developed by the CMS Collaboration, but foreseeing the adoption of a growing new infrastructure which integrates ICSC resources.

This lightning talk will report the national effort of porting different applications, ranging from quasi-interactive detector performance studies to physics data analysis from different scientific collaborations, offering a user-friendly interactive environment and adopting open-source industry standards. A survey of the ongoing activities will be provided, carried out mainly by newly hired Spoke2 personnel, and outlining the future steps of the flagship, in synergy with the architectural support defined in the Work Package 5.

Giorno preferito

19 Dicembre Pomeriggio

Primary author: DIOTALEVI, Tommaso (Università e INFN, Bologna)

Co-author: GRAVILI, Francesco Giuseppe (Istituto Nazionale di Fisica Nucleare)

Presenter: DIOTALEVI, Tommaso (Università e INFN, Bologna)