ICSC SPOKE 2

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Developing and testing of a flexible and scalable high rate analysis platform

Tuesday, 19 December 2023 17:05 (10 minutes)

The talk will be focused to present the computing infrastructure under development as part of the WP5 activities. The aim is to provide the users with an infrastructure that represents a tradeoff between deployment speed-flexibility, resource efficiency and service performance, what we call analysis facility.
In order to offer a general-purpose infrastructure, we leveraged container technology for running applications and Kubernetes for orchestration. Within this framework, we tested a use case for the analysis facility. This included the adoption of tools such as JupyterHub as an interactive web-based development environment capable of managing multiple accesses; DASK as an open-source Python library for parallel computing that can employ various batch systems (SLURM, HTC Condor, etc.) or, if needed, be equipped with a native scheduler (our choice); ROOT as an object-oriented software package; and optionally, S3 Object Storage for input/output handling
The near term goal of the activity is to automate the analysis facility deployable exploiting the ICSC computing resources.

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Session Classification: Lightning talks - flash talks