Contribution ID: **58**   Type: **WP5**

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

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.

Giorno preferito

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