

# Benchmarking distributed-interactive HEP analysis workflows on the new Italian National Centre analysis infrastructure

Thursday 18 July 2024 20:40 (20 minutes)

The demands of HL-LHC data processing and the challenges of future colliders are pushing to re-think High Energy Physics (HEP) computing models.

This talk aims at providing transparent resources for users and experiments, with suitable tools and environment, coupled with flexible and cloud-independent deployment in the framework of the ICSC project (Italian National Centre on HPC, Big Data and Quantum Computing).

The resources will be experiment-agnostic and applicable across HEP experiments, exploited to benchmark the proposed workflows.

Seamless interactive or quasi-interactive analysis are extremely promising: starting from container technology and Kubernetes, we provide analysis tools via Jupyter interface and Dask scheduling system, masking complexity for front end users and rendering cloud resources flexibly.

An overview of the technologies involved and the results of a benchmark use case will be provided, with suitable metrics to evaluate preliminary performance of the workflow.

## Alternate track

### I read the instructions above

Yes

**Primary author:** D'ONOFRIO, Adelina (INFN Napoli (IT))

**Co-authors:** SPISSO, Bernardino (INFN); SPIGA, Daniele (Universita e INFN, Perugia (IT)); ROSSI, Elvira (Universita Federico II e INFN Sezione di Napoli (IT)); CIROTTO, Francesco (Universita Federico II e INFN Sezione di Napoli (IT)); GRAVILI, Francesco Giuseppe (INFN Lecce e Universita del Salento (IT)); SABELLA, Gianluca; TEDESCHI, Tommaso (Universita e INFN, Perugia (IT))

**Presenter:** D'ONOFRIO, Adelina (INFN Napoli (IT))

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