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Benchmark interactive analysis for future colliders

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The challenges expected for the future e^+e^- colliders era are pushing to re-think the HEP computing models at many levels.
The evolution toward solutions that allow an effortless interactive analysis experience is one of the key topics foreseen by future colliders collaborations.

In this context, EDM4HEP offers a high-level model which makes it a flexible and user-friendly tool for HEP analysis workflows. To support this paradigm shift even further, a distributed infrastructure which leverages Dask to offload interactive payloads will be set up in production on INFN resources, transparently integrating Grid, clouds and possibly HPC.

It is crucial to integrate the efforts on both solutions, and an example of FCCee analysis will be presented.
The presented work will provide an overview of the main technologies involved and will describe the results of a first analysis benchmark using IDEA detector concept.

Several metrics, from event throughput to resource consumption, will be shown to assess the reliability of the workflow using resources hosted at the INFN distributed analysis facility, in the framework of the thematic spoke "Fundamental Research and Space Economy" of the National Centre on HPC, Big Data and Quantum Computing (ICSC) project.

Primary author: D'ONOFRIO, Adelina (Istituto Nazionale di Fisica Nucleare)

Co-authors: IORIO, Alberto Orso Maria (Istituto Nazionale di Fisica Nucleare); CAGNOTTA, Antimo (Istituto Nazionale di Fisica Nucleare); ROSSI, Elvira (Istituto Nazionale di Fisica Nucleare); CONVENTI, Francesco Alessandro (Istituto Nazionale di Fisica Nucleare); CIROTTO, Francesco (Istituto Nazionale di Fisica Nucleare)

Presenter: D'ONOFRIO, Adelina (Istituto Nazionale di Fisica Nucleare)

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