21st International Conference on Computing in High Energy and Nuclear Physics **CHEP2015** Okinawa Japan: April 13 – 17, 2015

Contribution ID: **179**                                            Type: **poster presentation**

# PROOF-based analysis on ATLAS Italian Tiers with Prodsys2 and Rucio

During the LHC Run-1, Grid resources in ATLAS have been managed by the PanDA and DQ2 systems. In order to meet the needs for the LHC Run-2, Prodsys2 and Rucio are used as the new ATLAS Workload and Data Management systems.

The data are stored under various formats in ROOT files and end-user physicists have the choice to use either the ATHENA framework or directly ROOT. Within the ROOT data analysis framework it is possible to perform analysis of huge sets of ROOT files in parallel with PROOF on clusters of computers (usually organised in analysis facilities) or multi-core machines. In addition, PROOF-on-Demand (PoD) can be used to enable PROOF on top of an existing resource management system.

In this work, we present the first performances obtained enabling PROOF-based analysis in the Italian ATLAS Tier-1/Tier-2 sites within the new ATLAS workload system.

Benchmark tests of data access with the httpd protocol, using also the httpd redirector, will be shown. We also present results on the startup latency tests using the new PROOF functionality of dynamic workers addition, which improves the performance of PoD using Grid resources. These new results will be compared with the expected improvements discussed in a previous work

**Primary author:**    DI NARDO, Roberto (Istituto Nazionale Fisica Nucleare - Laboratori Nazionali di Frascati (IT))

**Co-authors:**    VILUCCHI, Elisabetta (Laboratori Nazionali di Frascati (LNF) - Istituto Nazionale di F);   GANIS, Gerardo (CERN)

**Presenter:**   GANIS, Gerardo (CERN)

**Track Classification:**  Track3: Data store and access