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## Enabling data analysis à la PROOF on the Italian ATLAS-Tier2's using PoD

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In the ATLAS computing model, Tier2 resources are intended for MC productions and end-user analyses activities. These resources are usually exploited via the standard GRID resource management tools, which are de facto a high level interface to the underlying batch systems managing the contributing clusters. While this is working as expected, there are user-cases where a more dynamic usage of the resources may be more appropriate. For example, the design and optimization of an analysis on a large data sample available on the local storage of the Tier2, requires many iterations and fast turn around. In these cases a 'pull' model for work distribution, like the one implemented by PROOF, may be more effective.

This contribution describes our experience using PROOF for data analysis on the Italian ATLAS-Tier2: Frascati, Napoli and Roma1. To enable PROOF on the cluster we used PoD, PROOF on Demand. PoD is a set of tools designed to interact with any resource management system (RMS) to start the PROOF daemons. In this way any user can quickly setup its own PROOF cluster on the resources, with the RMS taking care of scheduling, priorities and accounting. Usage of PoD has steadily increased in the last years, and the product has now reached a production level quality.

PoD features an abstract interface to RMSs and provides several plugins for the most common RMSs. In our tests we used both the gLite and PBS plug-ins, the latter being the native RMS handling the resources under test. Data were accessed via xrootd, with file discovery provided by the standard ATLAS tools. The SRM is DPM (Disk Pool Manager) which has rfiio as standard data access protocol; so we provided DPM of Xrootd protocol too.

We will describe the configuration and setup details and the results of some benchmark tests we run on the facility.

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