Title : Astronomical GRID applications at the European Space Astronomy Centre

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Track Classification : end users (applications)

Abstract:

ESA's European Space Astronomy Centre, near Madrid, hosts most of ESA astronomy and planetary missions' science operations and their respective scientific archives (eg XMM-Newton, ISO , Integral, Herschel, Mars Express, Venus Express, Rosetta, Soho, ...).

Over the years, in support to the Science Operations Centres at ESAC, we have set up an EGEE compatible GRID infrastructure. This has been built to facilitate daily research for scientists at ESAC and to provide high computing capabilities for project data processing pipelines (eg Herschel).

Furthermore, closer collaboration between the science archives, the Virtual Observatory (VObs) and data processing activities has led to an other GRID use case: the Remote Interface to XMM-Newton SAS Analysis (RISA); a web service-based system, which allows users to launch SAS tasks transparently to the GRID, save results on VObs storage and visualize them through VObs tool.

GRID activities at ESAC are now expanding towards other computing models such as High Performance Computing (HPC) and Cloud Computing to support XMM-Newton and Rosetta high performance computing requirements and GAIA data processing.

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