

Integration of the Chinese HPC Grid in ATLAS Distributed Computing

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Fifteen Chinese High Performance Computing sites, many of them on the TOP500 list of most powerful supercomputers, are integrated into a common infrastructure providing coherent access to a user through an interface based on a RESTful interface called SCEAPI. These resources have been integrated into the ATLAS Grid production system using a bridge between ATLAS and SCEAPI which translates the authorization and job submission protocols between the two environments. The ARC Computing Element (ARC CE) forms the bridge using an extended batch system interface to allow job submission to SCEAPI. The ARC CE was setup at the Institute for High Energy Physics, Beijing, in order to be as close as possible to the SCEAPI front-end interface at the Computing Network Information Center, also in Beijing. This paper describes the technical details of the integration between ARC CE and SCEAPI and presents results so far with two supercomputer centers, Tianhe-IA and ERA. These two centers have been the pilots for ATLAS Monte Carlo Simulation in SCEAPI and have been providing CPU power since fall 2015.

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Primary Keyword (Mandatory)

Computing facilities

Tertiary Keyword (Optional)

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