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Type: Poster

Earth Science Applications ported on EGEE

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Describe the activity, tool or service using or enhancing the EGEE infrastructure or results. A high-level description is needed here (Neither a detailed specialist report nor a list of references is required).

Earth Science (ES) is an all-embracing term for sciences related to the planet earth and conducted by public and private research, operational activity by companies and organisations like space agencies, meteorological offices... ES applications from various domains and activity have been ported on a Grid infrastructure in order to get more computing resources, to share data and algorithms and to explore or produce large data sets. The ES applications so ported are distributed all over Europe.

Report on the impact of the activity, tool or service. This should include a description of how grid technology enabled or enhanced the result, or how you have enabled or enhanced the infrastructure for other users.

The results obtained by porting ES applications on EGEE have a large impact on the ES community. Example of such impact is evident concerning new developments in data centres. Each time the results are presented in conferences or in booth new potential users are interested. The awareness and the interest of the ES community increase as they saw successful stories. However two problems are faced to port the applications of new users. The first one concerns the support they can find in their country not far from their place; a local "seed" being needed to spread the use of Grid. The second point concerns the difficulty to port some ES environment on EGEE and to deploy complex applications. In the context of EGEEIII and of National Grid Initiative some of those difficulties will be overcome.

Describe the added value of the grid for your activity, or the value your tool or service adds for other grid users. This should include the scale of the activity and of the potential user community, and the relevance for other scientific or business applications.

Due to the large variety of ES applications already ported on EGEE, it is not possible to describe all the results so obtained. However some ES applications, already ported, provide scientific results published in international journals and conference proceedings, and included in PhD reports. Those results are a mean to convince the ES community of the potentiality of the Grid infrastructure like EGEE. The ES applications with their interesting results could be used to point out the kind of problems very well suited to Grid infrastructure like statistical approaches (Monte Carlo method, ensemble of jobs.), sharing data or algorithm, performing a very large number of independent jobs that permits to have a rapid solution. In some cases it is the only possibility to get rapid results while exploiting a large database or sending a large number of jobs, or to get better statistics.

Primary author: Dr PETITDIDIER, Monique (CNRS/IPSL)

Co-author: Mr SCHWICHTENBERG, Horst (FhG/SCAI)

Presenter: Dr PETITDIDIER, Monique (CNRS/IPSL)

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