

# HPC Applications from Earth Science on Grid Infrastructures

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During the last six years of the European funded project Enabling Grids for E-Science (EGEE) a wide range of applications was ported on to the EGEE Grid infrastructure. Simulation codes from the different domains of Earth Science range from embarrassingly parallel multi jobs, which map easily to a Grid infrastructure, to MPI or OpenMP parallelized codes exhibiting fine-grained parallelism. These different fundamental characteristics pose a challenge for the scientist deploying the application, and demand different techniques to reach a certain level of productivity. Other applications have hard requirements on data management, need connections to existing data bases or services and as such make up for a different challenge again. We will present a sample of the simulation codes and discuss some of the typical problems arising when they are deployed on clusters in a grid infrastructure like EGEE.

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