

Using Grid Technologies for Lattice QCD

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Numerical simulations of QCD formulated on the lattice (LQCD) require a huge amount of computational resources. Grid technologies can help to improve exploitation of these precious resources, e.g. by sharing the produced data on a global level. The International Lattice DataGrid (ILDG) has been founded to define the required standards needed for a grid infrastructure to be used for research on lattice QCD. In this talk we will discuss the requirements, problems, solutions and open issues related to putting a grid-of-grids into operation. We will in particular report on the implementation of a standard for metadata and a metadata catalogue. Furthermore, we will consider issues related to file catalogues, data management and access control. In this contribution we will focus on the experience of operating a LCG2-based grid infrastructure used by LQCD research groups in Europe.

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