French site report

Members of "LATFOR"; VO for continental Europe (Germany, France, Italy, Spain)

Potential users of ILDG are:
– Clermont-Ferrand (IN2P3/CNRS)
– Grenoble (IN2P3/CNRS)
– Marseille (INP/CNRS)
– Orsay (INP/CNRS)
– Saclay (CEA)
– Tours (INP/CNRS)

Computer capacity

The unquenched configurations have been produced at CNRS computing center IDRIS (4 racks of BlueGene/Q).

The analyses are performed in different places:
– Computing center of CNRS (BlueGene/Q, SandyBridge: 1.5 Pflop/s)
– Computing center of CEA in Saclay (GPU: 200 Tflop/s)
– Computing center of CINES in Montpellier (Intel 12-cores: 2.1 Pflop/s)
– Laboratories computers and clusters

Physics projects

Clermont/Grenoble/Orsay/Saclay
European Twisted Mass Collaboration (ETMC): at the moment, no production of gauge configurations
Physics topics: semileptonic B decays, non perturbative renormalisation (RI-MOM).
Analysis done in various computing centers and PC clusters in the labs.

Orsay
Flavour physics, especially form factors of rare decays, semileptonic D decays with soft photons in the final state, physics of radially excited heavy-light mesons and charmonia.
Alpha Collaboration: B physics, access to configurations produced by "CLS" (not stored on ILDG).
Analysis done locally, on the cluster installed at CINES and on BlueGene Q system at IDRIS.

Marseille
Budapest-Marseille-Wuppertal Collaboration (BMW-c): electromagnetic and mass isospin breaking effects, muon $g-2$, σ term of the nucleon, width of the ρ meson, access to configurations produced by BMW-c (not stored on ILDG)
The analysis is shared between BlueGene/Q system and a PC cluster installed in Marseille.

Tours
Vacuum properties in presence of strong magnetic fields and gluon plasma, quantum particle in an external magnetic field. The analysis is done locally.

Use of the ILDG grid

We are part of the LATFOR (continental Europe) virtual organisation.

An ILDG storage element is working in the IN2P3 computing center in Lyon.

Downloading is still used: twisted quarks, Wilson-Clover quarks.

Independently of ILDG we also store there the propagators to compute 2-pt and 3-pt correlation functions and Green functions.

Funding and issues with use of HPC

There is no special funding for ILDG. However, IN2P3 is involved via its storage element working in the Tier 1 computing center in Lyon and by providing us with fast network facilities.

Beginning of 2015, creation of "Université Paris-Saclay" (Communauté d'Universités et d'Etablissements): 19 partners, including CNRS, CEA, Ecole Polytechnique, Universités Paris-Sud and Versailles St-Quentin, and 8 "Grandes Ecoles", 50 000 people. Write-up of a strategy document until July 2015, funding of 1 G € approved (or not) in summer 2016. HPC is an important working axis: propose master degrees, buy a dedicated machine to test codes, develop a network among local computer centers, submit common projects to European calls, invite visitors; maybe an impact for the lattice community in Paris area?