Workflow and Parallelism

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Introduction

- ***All scientific analyses are complex!***

- **Multiple applications combined to give final results:**
  - Data or execution dependencies between the applications.
  - Branch points within the overall analysis.
  - Often impractical to combine into a monolithic executable.
  - Often involves large numbers of jobs.

- **Often require special capabilities or qualities of service:**
  - Multiple CPUs (parallel applications).
  - Pseudo-interactive response.

Goals & Content

- **Goals:**
  - Understand available job management services.
  - Accommodating diverse apps. with “special” capabilities.
  - Highlight user needs and common solutions.

- **Content of track:**
  - gLite functionality
  - Scheduling tactics/issues
  - Pseudo-interactive quality-of-service
  - Parallel job functionality
  - Concrete examples of use

Agenda

- **Session 1 (11:00-12:30)**
  - F. Giacomini: The gLite Workload Management System
  - C. Germain-Renaud: Towards a statistical model of EGEE load
  - J. Coles: Extension of DIRAC to enable distributed computing using Windows resources
- **Session 2 (14:00-15:30)**
  - M. Berger: Optimizing a Grid workflow for the EGEE infrastructure: The case of Wien2k
  - M-K. Lim: Execution Time Prediction of Imperative Paradigm Tasks for Grid Scheduling Optimization
  - B. Simo: Interactive Workflow Management in int.eu.grid
  - GRid-aware Optimal data Warehouse design (GROW)

Agenda

- **Session 3 (16:00-17:30)**
  - M. Sterzel: Parallel Execution of Chemical Software on EGEE Grid
  - K. Dichev: MPI Support on the Grid
  - F. Bellavia: Non-parametric parallel GRID Harris-affine detector

- **Time *including* questions: ~30 min. per talk.**
- **Discussion: ~7 min. per talk.**
- **Audience expected to participate!**