

Belle II Computing activities for Jennifer 2

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Belle II Computing Model

- Distributed computing model that take advantage of Grid and Cloud technologies
 - Centrally managed reconstruction of detector data, MC production, and skimming (selection of subset of events tailored for a specific set of analysis)
 - Physics analysis is a user managed (chaotic) step
- Requirements:
 - Efficiently use the computing resources
 - Have available user friendly tools for:
 - Data management
 - Site management: manpower and know-how can be problems for small-medium sites
 - Central production management
 - Support of user analysis

R&D theme for Jennifer-2: Data Management

- Study Data Federation technologies using Http/WebDav protocols
 - Service definition and integration in Belle II framework
 - Performance
 - Authentication and Authorization system
- Study how to integrate Caching Technologies
- Study how to integrate Cloud Object storage system in the Belle II Computing model
- Explore machine learning approaches for autonomic data relocation
 - Will allow mirroring of most popular data

R&D theme for Jennifer-2: Cloud Computing

- Study new approaches to include Cloud resources in the Belle II Computing Model.
- Study how to improve the interaction between Cloud resource, Cloud storage and standard storage in order to create resilient sites.
- Define cloud image and workflow to increase the usage of opportunistic resource (Elastic cloud).
- Development of a toolkit for user friendly installation and management of a cloud infrastructure in a site