eGee

Enabling Grids for E-sciencE

Building Blocks: more realistic examples

www.eu-egee.org

Information Society

- **We've separately used:**
  - AuthZ and AuthN (proxies, VOMS)
  - Simple Workload Management (Resource Broker)
    - Run hostname
    - Send and run an executable
  - Information System (IS)
  - Data management (DM)

- **Its time to put these together!**

- **The goal of this practical is to show some building blocks that can be used in realistic applications on a grid**

Enabling Grids for E-sciencE

- **Ground based Air Cerenkov Telescope 17 m diameter**
- **Physics Goals:**
  - Origin of VHE Gamma rays
  - Active Galactic Nuclei
  - Supernova Remnants
  - Unidentified EGRET sources
  - Gamma Ray Burst
- **MAGIC II will come 2007**
- **Grid added value**
  - Enable "(e-)scientific" collaboration between partners
  - Enable the cooperation between different experiments
  - Enable the participation on Virtual Observatories

Gamma ray

Particle shower

~ 10 km

Cherenkov light

~ 1°

~ 120 m
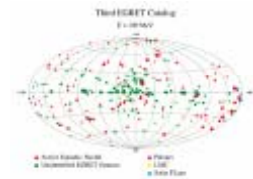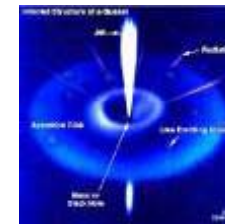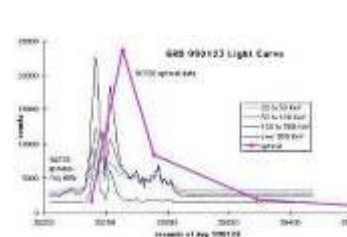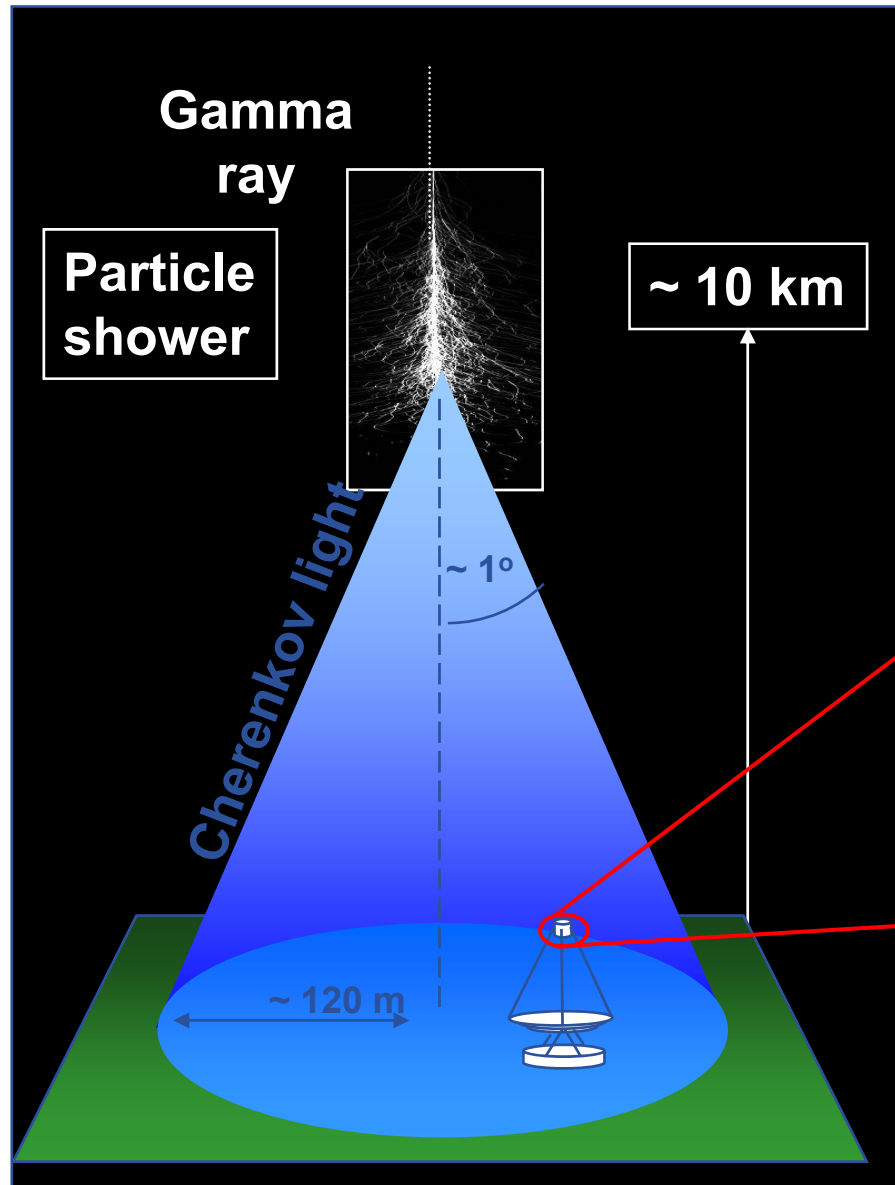
Cherenkov light Image of particle shower in telescope camera

0.6
189mm
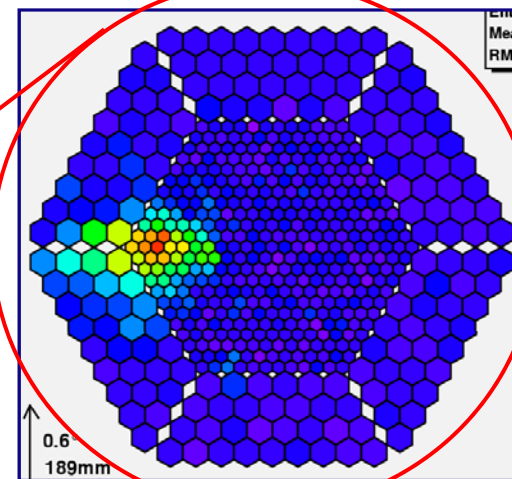
reconstruct:
  arrival direction, energy
reject hadron background
Requires Monte-Carlo
analysis: writes data to a SE

1. **Run a more realistic job, an example provided by the MAGIC project**
   - Sends script to CE
   - Sends executable in sand-box – note need to "chmod +x"
   - Writes file to SE
2. **Run a job "close" to SE with required input /output data**
   - simple script to copy file from SE to Worker Node
3. **Script to run multiple jobs**
   - Create JDL files in the script
   - Submit mulitple jobs to Resource Broker
4. **How to control access to files – so collaborators can share data**

- **The wiki page leads you through submitting all these, then invites you to open a second window and to explore what is happening while the jobs run.**

- **READ INSTRUCTIONS CAREFULLY – you need to be alert and to understand what is happening for this to work**