Resource sharing with Condor

- **What is Condor?**

  - Condor is a software system that creates a High-Throughput Computing
  (HTC) environment. It is a job and resource Management system.

- **Objective**

  - Make
  a
  n optimal use of the idle CPU time of GEPI desktop workstations

- **Components**

  - Software Condor (free)

  - At least ONE machine dedicated as the Central Manager

  - N-execution and submit workstations

- **Result**
  White paper **"How to implement the GEPI's Condor Pool."**

Resource sharing with Condor

- **Maintenance**
    - One administrator for monitoring the queue periodically and installing the software in each workstation
- **Grid relationship**
   - **Condor-G** allows users to send jobs to grid nodes which have Globus toolkit installed.

GALA Project

GAlaxy virtual LAboratory

Objective: The **Virtual Observatory of Synthetic Galaxies** will be for the researchers an important tool to improve their work. They would explore galaxies properties and their history formation beneath the current cosmological paradigm.

GALA consists of:

- UBA Certification Authority
- Galaxy formation simulation toolkit (P-Gadget) and result analyzer
- High performance clusters (Ingeld y Golondrina)
- Synthetic galaxy catalogue
- Tools for image (2D/3D) prosessing.

GALA Project
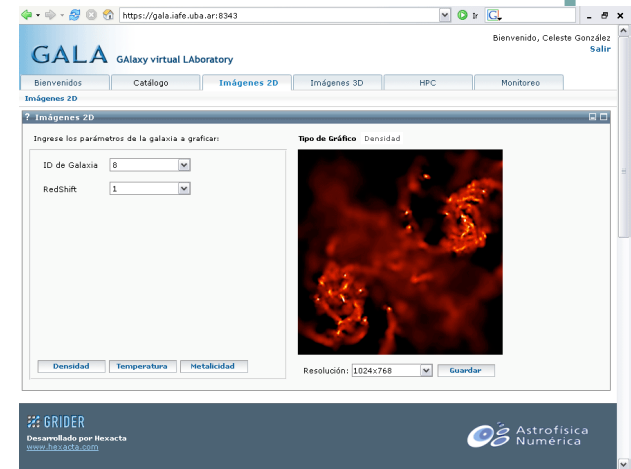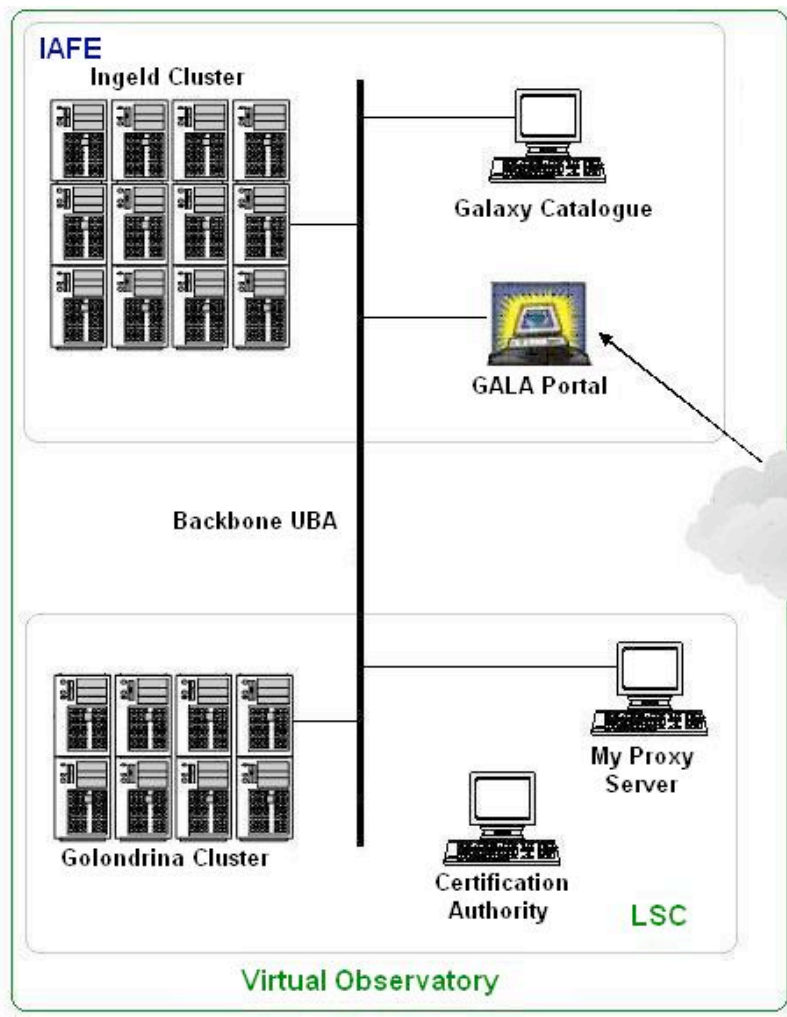
4. 2D Image generator.

Resource sharing

Available hardware:

- Speedy González Cluster (16 nodes Pentium and Athlon) for the students, LSC.

- Golondrina Cluster (4 nodes Opteron 64 dualcore, 2 GB RAM), for researching activities, LSC.

- Ingeld Cluster (10 nodes Pentium 4, 1.5 GHz, 1 GB RAM), IAFE.

- Future cluster, 58 nodes Intel Xeon dual dualcore (like 232 processors performance), interconected by a high speed network and low latency Infiniband, DC (Computing Department).