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EUChinaGRID Applications

Fabio Polticelli

Computational Biochemistry Lab - University Roma Tre

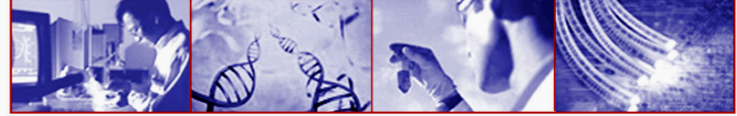
EUChinaGRID WP4-Applications Manager

Budapest, 4.10.2007

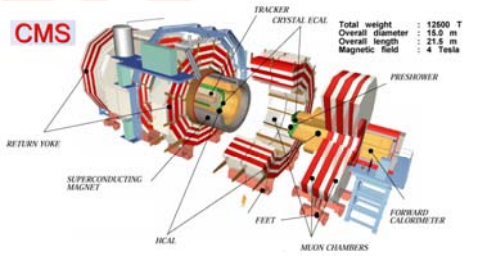


FP6-2004-Infrastructures-6-SSA-026634





“Pilot” applications

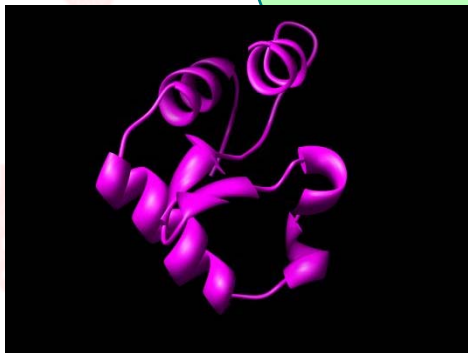


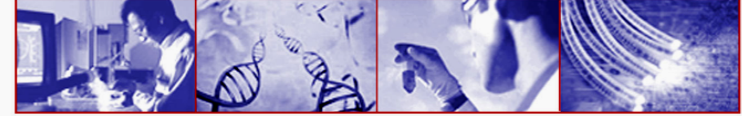
EGEE
*ATLAS and CMS
support*



ARGO
*Data mover
MEDEA++
Corsika*

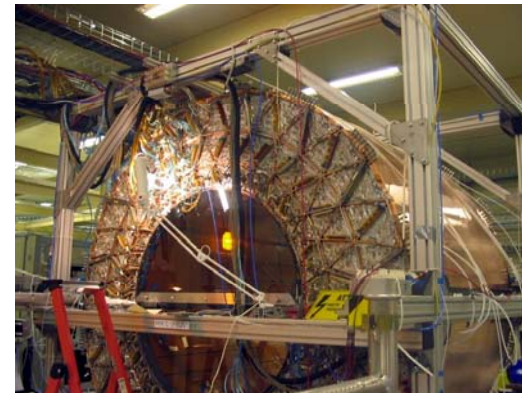
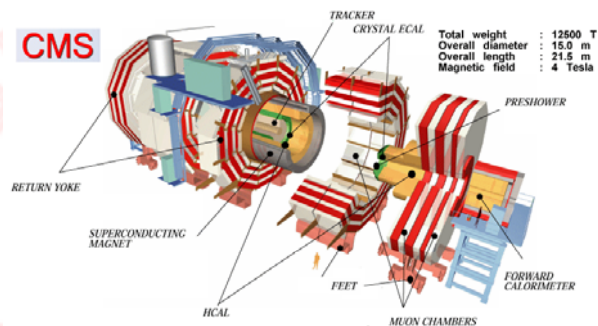
NBP Application
*Rosetta
Early/Late Stage*

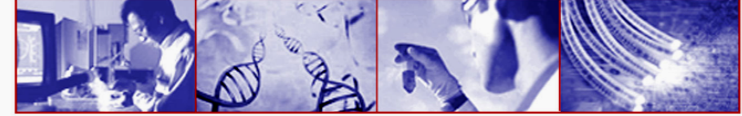




EGEE applications

- ▶ Deployment of CMS and ATLAS applications on EUChinaGRID pilot infrastructure





ARGO applications

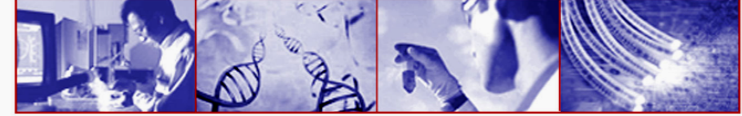
▶ ARGO-YBJ experiment data transfer

- Large data sets (250 TBytes/year) to be stored and shared by European and Chinese partners.
- ARGO-YBJ Data Mover.



▶ Deploy the applications on the pilot infrastructure

- Analysis of the data to study gamma ray bursts
 - MEDEA++
 - Corsika



Biological applications

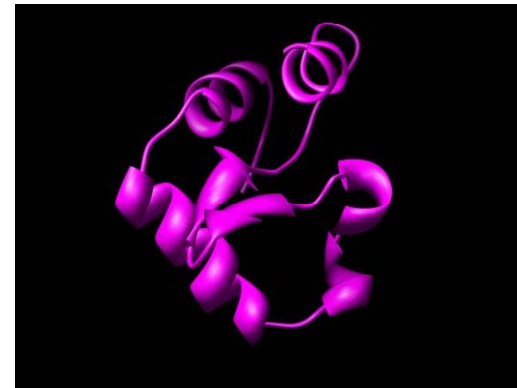
- ▶ Generate “never born protein” sequences database
- ▶ Port protein structure prediction software on grid
- ▶ Develop web tools for non grid trained users

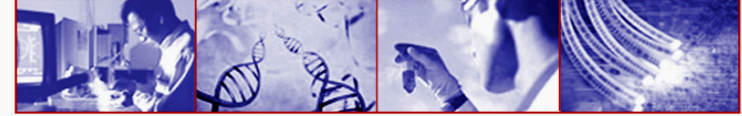
*KWCWPFASHNDLKVQSQ
WYVEPPDTIPPYNKYGTN
FIKHCQYIAHMQGDTHFF
NRVRMHQLWKIIVDCAY*

Rosetta



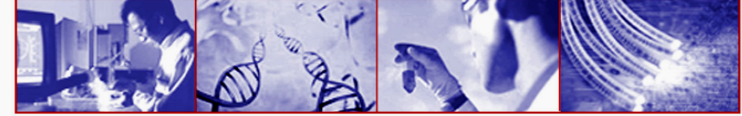
Early/Late Stage





New applications

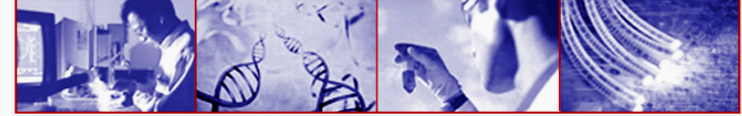
- ▶ **New applications “presented” by existing partners**
 - Realm of the applications enriched by new themes
- ▶ **Ranked and selected according to common agreed criteria**
- ▶ **Porting strategy involving a school on application porting**
 - Beijing, October 25th - November 3rd
 - Task force made by partners



Applications Categorization

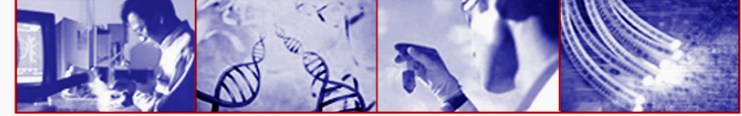
▶ Applications categorized by scientific/technical field

- Biological applications (2 new)
 - Structural biology
 - Genomics
 - Drug discovery
- High energy physics applications
- Astrophysics applications (3 new)
- Engineering applications (2 new)



Applications selection criteria

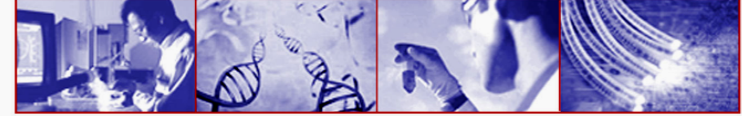
- ▶ *Is the application already interfaced to any grid middleware?*
- ▶ *How much experience do the developers and users have in grid computing?*
- ▶ *How many people are proposing the application?*
- ▶ *Are they EUChinaGRID Partners?*
- ▶ *How many people can work on it?*
- ▶ *Scientific and/or social impact of the application?*



Cross Projects Communities Identification

- ▶ **High Energy Physics**
 - **EGEE and EUChinaGRID**
 - ATLAS and CMS

- ▶ **Structural Biology**
 - **EGEE, EUChinaGRID, SEEGRID, EELA**
 - WISDOM
 - *In silico* structural genomics
 - Molecular dynamics
 - Docking
 - Protein-Protein Interactions



CONCLUSIONS

- ▶ *There is a great room/need for collaboration between projects/communities*
- ▶ *Redundancy but also complementarity of tools*
- ▶ *Great synergy possibilities*



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Thank you for your attention !



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