DC1 perspective for the activities in Italy

- In the last few years Italy, in the software domain, has been mainly involved in the offline efforts
  - Useful training in software
  - Involvements in real problems
  - Rewarding experience
- Now we need (want) to step towards analysis and science tools development
- Started to think about that long time ago (at least one year)
- The main transition event: **meeting in Perugia on May 2003**
- So, what's the Italy perspectives for the pre/during/post DC1 era? (these are fast assembled items collected during this meeting and deriving directly from the Perugia meeting discussions we had with Seth, Richard, Toby et.al .. Evolvements, improvements and changes on these are probable)

Activities in Italy (cont'd)

- **Before DC1**
  - Finalization of the Observation Simulator (O2) **Perugia**
    - updated version available on CVS
      - Todo: add variability of the sources + FluxSvc as input + more work on "code" is nedeed
  - GEANT4 finalization and validation **Udine-Trieste, Bari, Pisa**
    - Tkr Digi
      - Integration in Gleam in progress
    - MonteCarlo validation plan
      - See talk of Francesco
- **During DC1**
  - Developments of GRB tools **Trieste-Pisa**
    - Simulation and analisys tools
  - Alternative analysis methods to Likelihood **Perugia**
    - ICA: new method in astrophysics field, first test on simulated data to recognize the position of sources done → good performances, work in progress
    - Wavelets: more used method than ICA, first analysis of simulated data performed, work in progress
  - Tutorials, Mirror database ?
  - Event Display and gui **Udine**

Activities in Italy (cont'd)

- **_After DC1_**
  - Continue the work on observation simulator and alternative analysis and start studies on PSF **Perugia**
  - Applications of the Likelihood methods (binned/unbinned) for cosmic rays sources detection **Bari** :
    - extract signal from the background taking into account the detector response function (PSF ..)
    - maximize the LIKELIHOOD function
  - Continue GRB involvment **Trieste-Pisa**
  - Classifications and data mining **Udine**
  - More …
  - **_Stay tuned, more results and idea will be ready for the collaboration meeting in Rome_**