Memory needed by ATLAS jobs

- We asked a long time ago (GDB July 2005) to provide Grid nodes with 2 GB of memory per CPU (now per core)

- Current situation:
  - Full simulation (Geant4) jobs: need just over 1 GB/job, trying to reduce, but more detailed muon detector geometry is in the pipeline
    - In any case reducing CPU time/event has priority for developers after the x2 loss with G4.8
  - Fast simulation (Atlfast) jobs: runs also reconstruction in the same jobs, therefore needs reconstruction memory
  - Reconstruction jobs: struggling to keep <2 GB/job. Marginally exceeding that right now if Trigger is on, but intend to beat down before Summer.
  - Analysis jobs: <1 GB needed, but framework is flexible and any user can activate any part of reconstruction (see above)

- Current performance work is focussing on:
  - Reducing Geant4 simulation time
  - Reducing size of HITS, RDO, ESD, AOD
  - Reducing memory footprint of reconstruction jobs
  - (at lower priority) understanding memory footprint of 64-bit native build

Dario Barberis: ATLAS Memory Footprint