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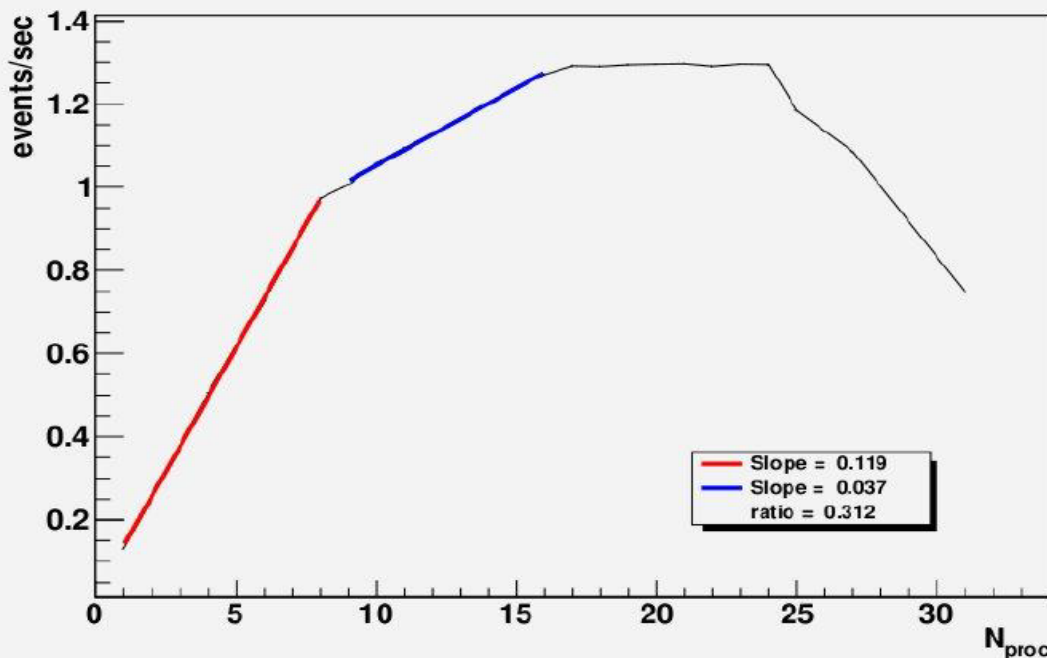
# Memory requirements (for high pileup MC12)

CERN IT  
Department

MC12: with high pileup expected in 2012, there will be jobs which need  $\text{vmem} > 3.5\text{GB}$  : since ATLAS has observed that some batch system kills jobs when exceeding  $\text{vmem}$ , we ask sites to have limits on  $\text{vmem}$  of 4GB. SWAP should be set to  $2 \times \text{RAM}$  size. Physical memory requirement not changed (2 GB).

Of course ATLAS should define the task with the right requirements, brokering hungry jobs to properly configured queues.

throughput for multi athena jobs



- Test machine:

- 8 core Xeon E5530 @ 2.4 Ghz with hyperthreading
- 24 GB of memory (24GB swap)
- RAW to ESD data with low pileup data from 2011 (on local HD)
- up to 24 jobs can run in parallel with almost 100% CPU utilization, with more jobs machine start swapping. Athena is able to run in event loop within about 1GB of physical mem per job: new high pileup MC samples may need to full address space of 4GB but can fit into less real memory during event loop