

GPU

Cédric Potterat

Reunão LAPE

Mar 25, 2014



- ▶ Officially: Not for Upgrade (nor Run2), it has to be seen as R&D. Do we gain something using GPU (or any other hardware structure) ?
- ▶ Parasite Strategy. Try to have another hardware structure for the online (1st, then other soft)
- ▶ usually cheap to have test machines (and CERN/LHCb already have test machine too).

in LHCb

- ▶ "convener": Niko, Xavier Vilasis (La Salle, BCN), Donatella Lucchesi (Padova)
- ▶ kick off: 1st workshop on many-core April 25, 2012. 48th A&S W.
- ▶ second kickoff when they started to appear in Indico and more people looked interested in (-> Stripping people for example)
- ▶ meeting on Friday morning ...
- ▶ would/should be used in "parasite" mode during some time in Run2. to see the real gain (if any)

Use Cases

- ▶ Trigger & Track Reco (Alice, NA62)
- ▶ Rich (NA62)

work needed

- ▶ Service Software (need to be transparent for the (c++) user)
 - ▶ Specific algorithm (VeLo pix, track Reco...jet Reco (?))
-
- ▶ I have no particular experience in GPU, I tried some CUDA examples on my own computer. (it impressed me enough to be really interested)
 - ▶ I am interested.
 - ▶ I will probably meet and discuss with Niko and Xavi beginning of May (commissioning week)