



Offline monitoring

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Small progress...?

On/Off-line monitoring:

- ✓ We get the events we want to the right task.
- ✓ Histograms are produced.
- ✓ We can retrieve them from the grid/online farm.
- ✓ They get analyzed.
- ✗ There are enough histograms to find and understand problems.

Computing:

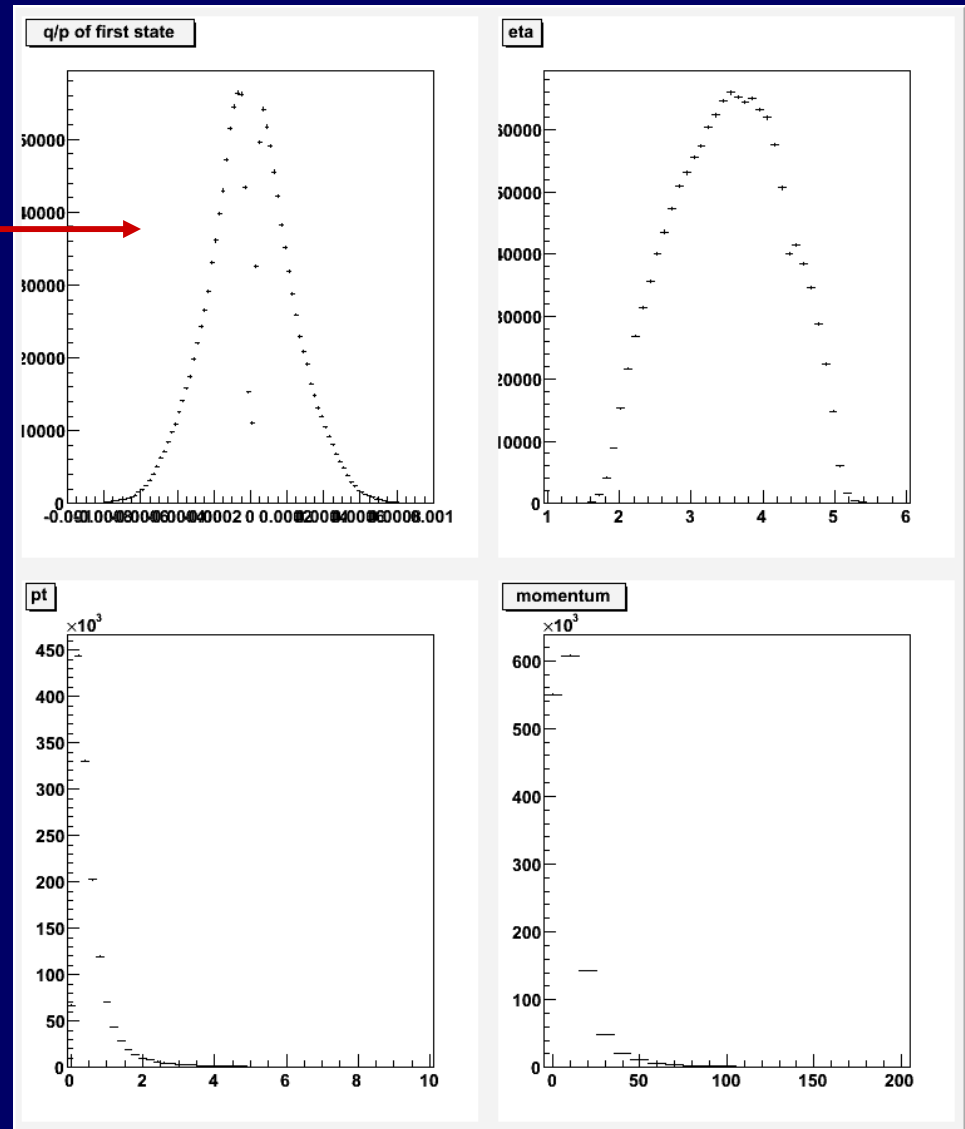
- ✓ Flagging as OK in book-keeping triggers reconstruction.
- ✗ Stripping, streaming

Quality:

- ✗ MC data
- ✗ Aligned, calibrated...
 - ✓ We can pretend it is misaligned and miscalibrated
 - ✗ Patch, tag, distribute database, re-reconstruct

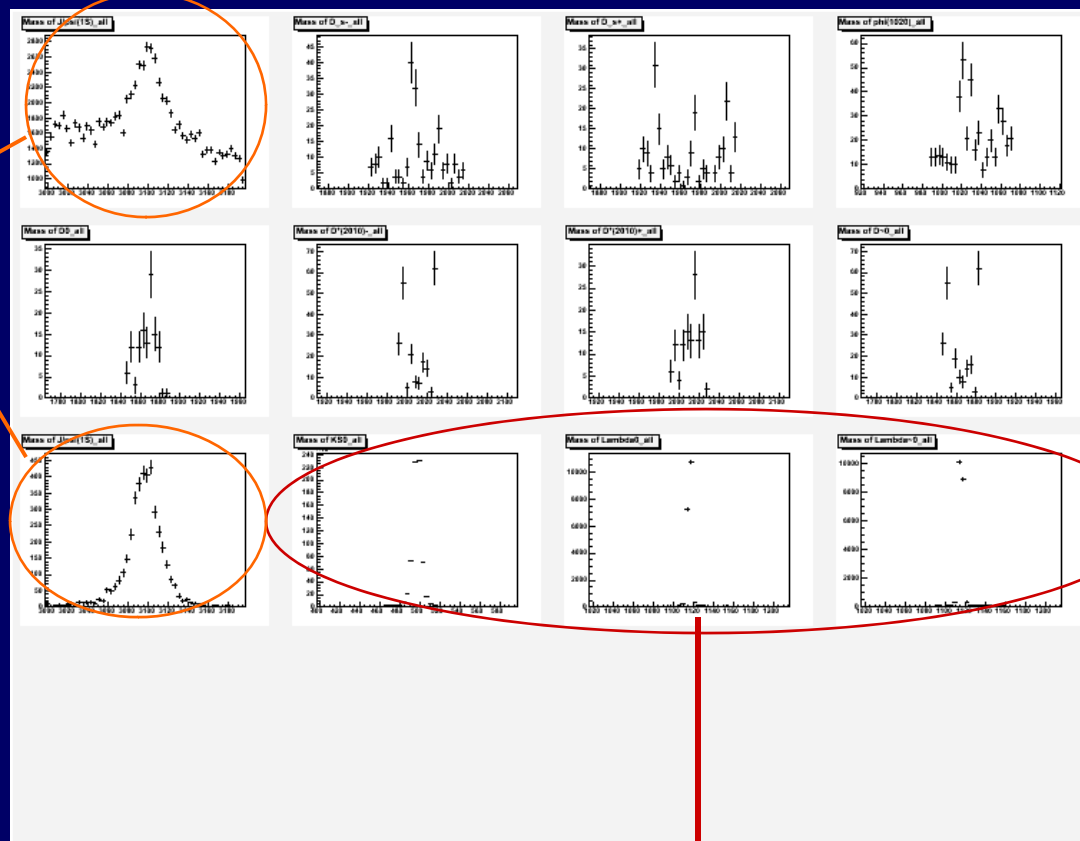
We do find the problems!

Wrong conditions tag used in reconstruction. Zero magnetic field immediately found from the histograms.



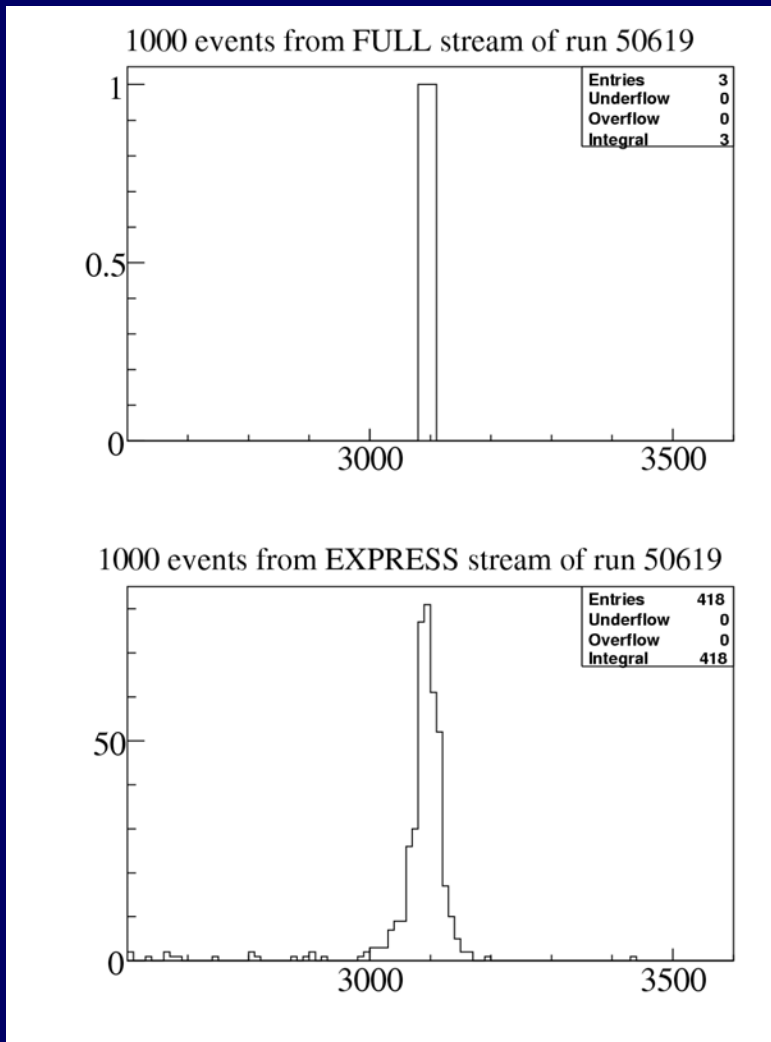
J/ψ signal

- Running at 1.8 kHz mb + 10 Hz signal.
- J/ψ reconstructed both as $\mu\mu$ and $\mu\pi$.



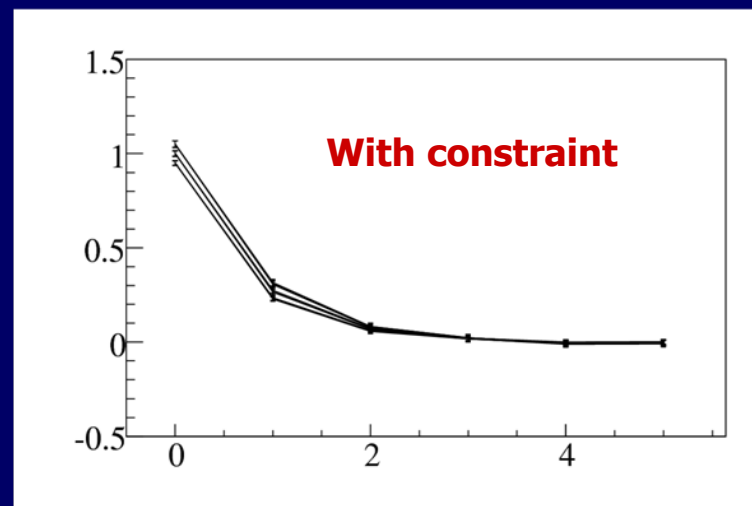
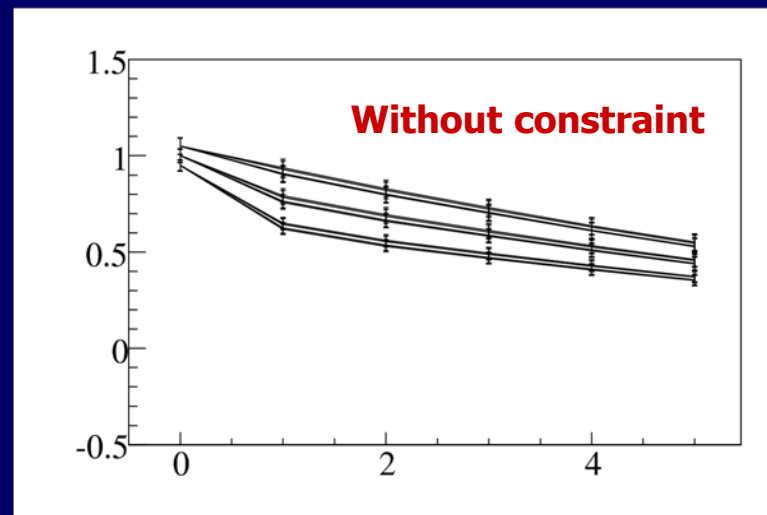
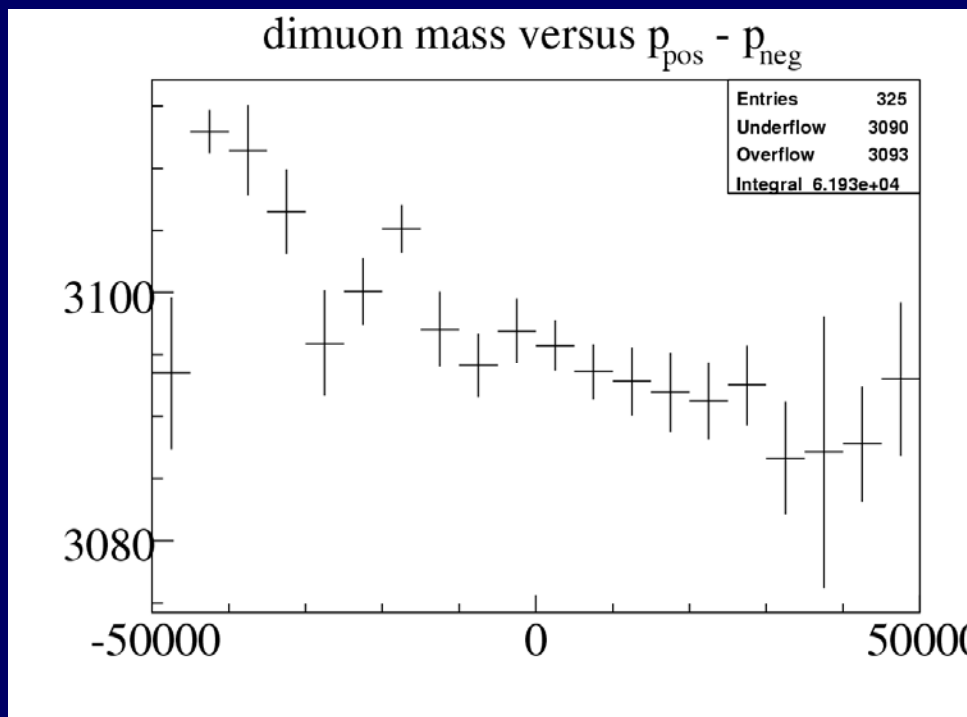
K^0 and Λ peaks.

J/ψ signal (2 - from Wouter)



- EXPRESS contains 5Hz min. bias + all J/ψ events.
- J/ψ → μμ in trigger in the first 1000 events of the FULL and EXPRESS streams.
- HLT banks not yet checked.

J/ψ signal (3 - from Wouter)



- Use vertex and mass constraint (see Wouter presentation at the alignment workshop).
- $\mu\mu$ mass vs. $p(\mu^+) - p(\mu^-)$.
- Very sensitive to misalignment.
- Wrong constants were used.

Two different issues (see Patrick presentation yesterday)

Brunel:

- Stripping was never tested with recent data and latest Brunel.
- A lot has changed on the DaVinci side, which has effects on Brunel
- Needs 3 patches in Configuration.py

DaVinci:

- To select data I need :
`"COLLECTION='TagCreator/EventTuple' DATAFILE='"+fname+"`
`TYP='POOL ROOT' SEL='(StrippingB2Charged2Body>0) ||`
`(StrippingB2DPi>0) || (StrippingBd2JpsiKSLine>0) ||`
`(StrippingBd2JpsiKstLine>0) || (StrippingBd2KstarMuMu 10Hz>0) ||`
`(StrippingBs2JpsiPhiLine>0) || (StrippingBu2JpsiKLine>0) ||`
`(StrippingTopo>0)""`
- DIRAC needs to set fname, but we don't want to hard-code all selections.
- Need one selection that is an or of all others.

Much already achieved but we still wish to:

- Fix some issues with presenter, odd crashes..
- Improve distribution of information: typical example the wrong conditions tag.
- System to make histograms available to experts.
- Test the whole stream.
 - Normal case: stripping, streaming...
 - Problems case: alignment and calibration, re-reconstruction, validation, new tag distribution.
- Simulate different triggers.
- Add L0 simulation.
- Coordinate more with sub-detectors DQ experts.