

Work status

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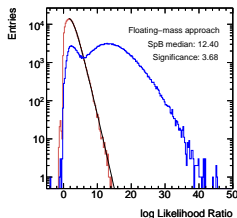
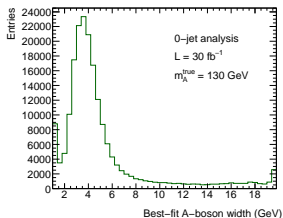
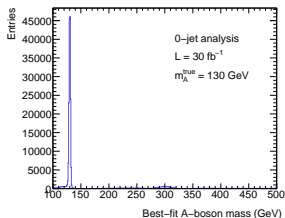
Instituto de Física Corpuscular (IFIC) UV-CSIC

TileCal Valencia meeting

6 May 2009

MSSM Higgs analysis status

- ▶ Analysis finished, new draft with corrections sent to Bruce and waiting for his comment before sending it as INT
- ▶ Floating mass fit approach improved recently: fit to the whole mass range 100-500 GeV with all the signal parameters floating
- ▶ Pulls for A-boson mass and width added to the note

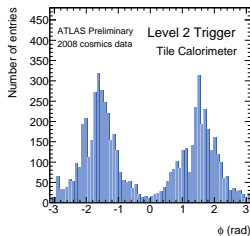
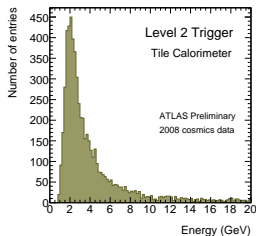


- ▶ Two trigger chains `mu4_tile` and `mu4_trod` included in the trigger menu for $\mathcal{L} = 10^{31} \text{ cm}^{-2}\text{s}^{-1}$:
http://tbold.web.cern.ch/tbold/view_menu.php?name=lumi1E31_14.4.0

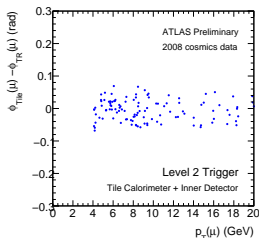
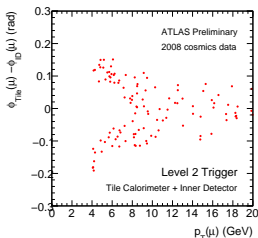
	mu4_tile	mu4_trod
L1	L1_MU4	L1_MU4
L2	TrigTileLookForMuAlg TrigIDSCAN TrigTileMuFex TileMuHypo	TrigTileRODMuAlg TrigIDSCAN TrigTileMuFex TileMuHypo
EF

- ▶ TileMuld status, software developments and performance analysis, is reported bi-weekly in Muon Slice Trigger Software meetings
- ▶ Summary of TileMuld results with cosmics and comparison with Monte Carlo data presented in Trigger Open meeting:
<http://indico.cern.ch/conferenceDisplay.py?confId=44738>

- ▶ <https://twiki.cern.ch/twiki/bin/view/Atlas/ApprovedPlotsTrigger>



- ▶ Approval request for cosmic plots of TileMuld algorithm:
<<http://cdsweb.cern.ch/record/1172797>>



- ▶ DSP developments:
 - ▶ Masking of bad channels implemented (v14r5p0)
 - ▶ Need to include DQ checks in HLT flag (for TileMuld and eventually MET)
 - ▶ Code optimization to speed-up (improvement done, but still need more work)
 - ▶ Load TileMuld energy thresholds from DB (individual lower energy thresholds for each cell will be applied depending of its RMS noise value)
- ▶ Taking care of TileCal offline software documentation (doxygen and twiki pages) with Sasha
- ▶ Finishing thesis ...