

Introduction



Ricardo Gonalo
HSG5 weekly meeting – 19 January 2012

News! News! News!

- MC plans – from phys. coord. & etc
 - Expected timeline for finishing mc11 (last week):
 - Expect to finish digi+reco of all priority 0+1 digi+recon around 1st Feb
 - Includes redoing 50% of the priority 0 samples with PY6 pileup (better ETmiss modelling)
 - Finish simulation+digi+reco of all priority 2 samples around 20th Feb
 - Could advance this by ~2 weeks if we could reach 40M digi+reco per day
 - By mid February, need to start devoting resources to mc12, >50% from March
 - Estimate need at least 500M mc12 full simulation events for first collisions
 - In the meantime:
 - Tuning of grid parameters made production ramp up to 51M events (digi+reco)/day (peak 70M/day)
 - This is from existing HITS only, and at the cost of some D3PD production
 - The new default configuration is MC11c : identical to MC11b but uses Pythia6 pileup files

News! News! News!

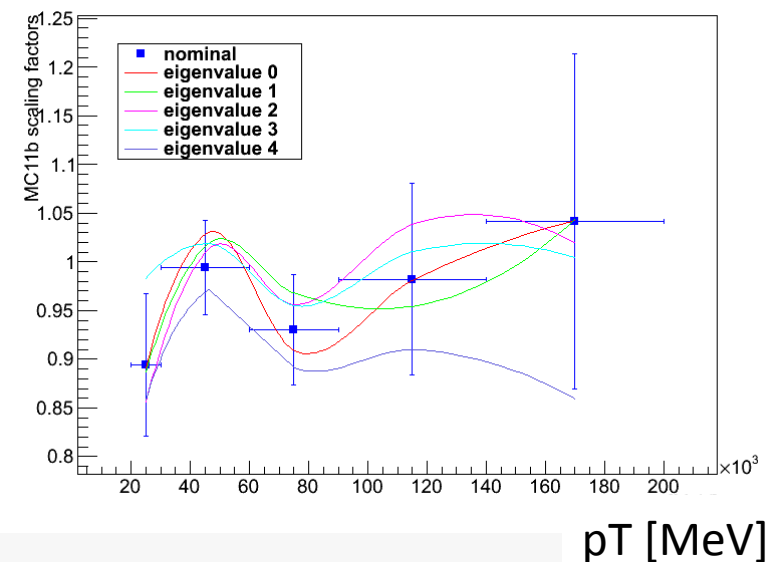
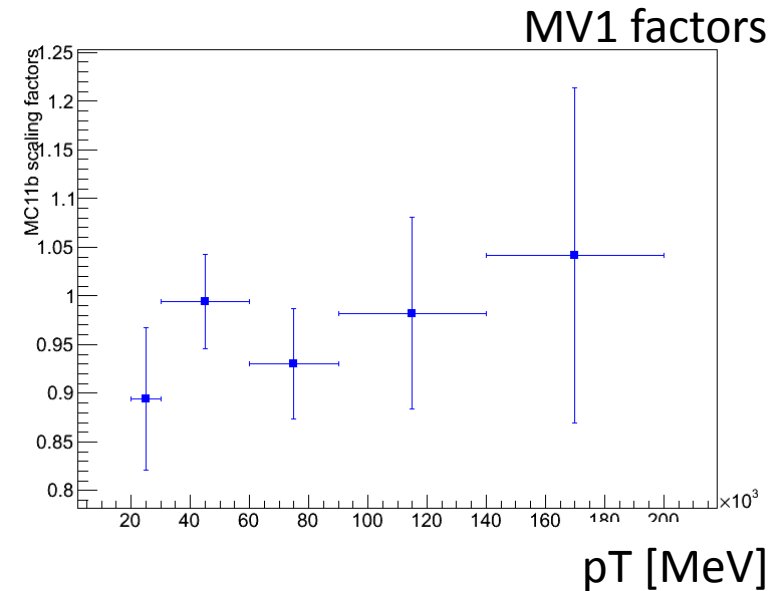
- HSG5 News:
 - ZH->vvbb:
 - Moved to two meetings/week up to Moriond
 - New e-group : atlas-phys-higgs-hsg5zh2nunubb@cern.ch
 - <https://e-groups.cern.ch/e-groups/Egroup.do?egroupName=atlas-phys-higgs-hsg5zh2nunubb>
 - Questions from muon contact person (Rosy):
 - Are we using MCP recommendations?
 - Are there any open issues concerning muons?
- HSG5 MC samples:
 - Our request of 15M AFII Z->vv+h.f. was accepted in priority 1
 - Inclusive Pythia di-boson samples exist: WW, WZ, ZZ – around 20fb^{-1}
 - Our list of MC samples is now attached to the D3PD/MC wiki:
https://twiki.cern.ch/twiki/bin/view/AtlasProtected/HSG5Higgs2bbFinalStateD3PD#List_of_available_MC_samples

Publication Plans

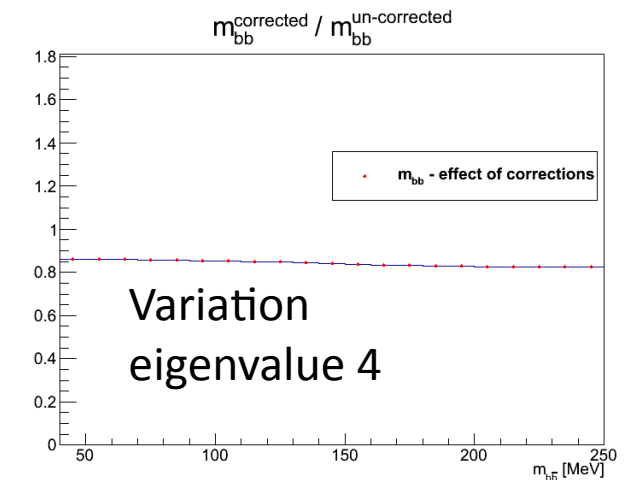
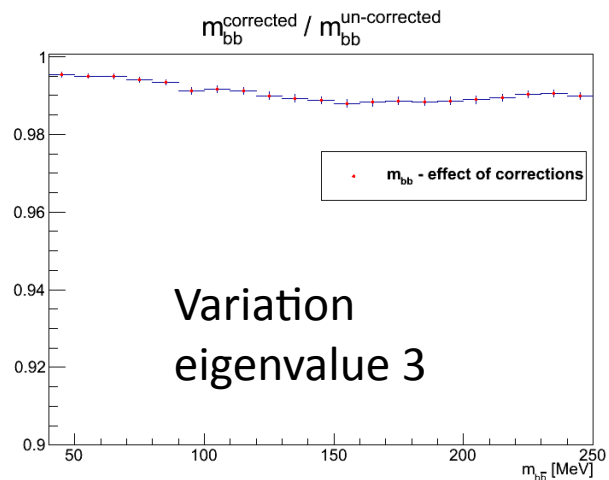
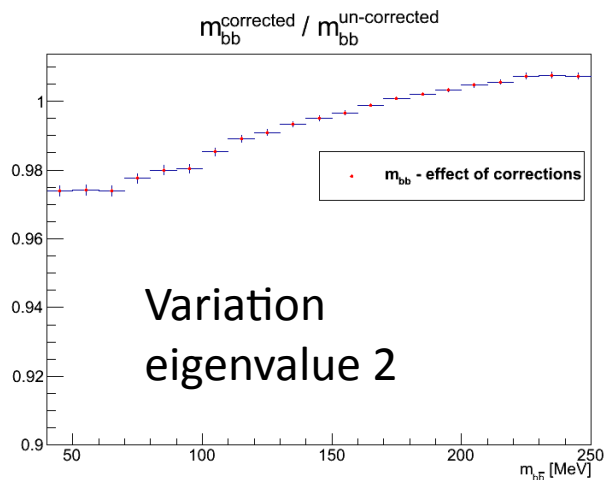
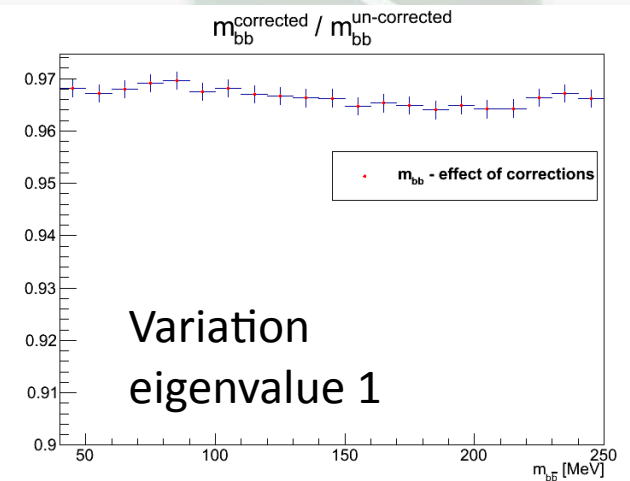
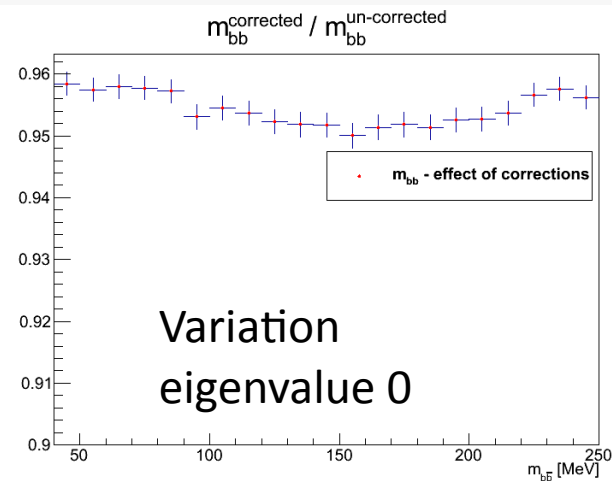
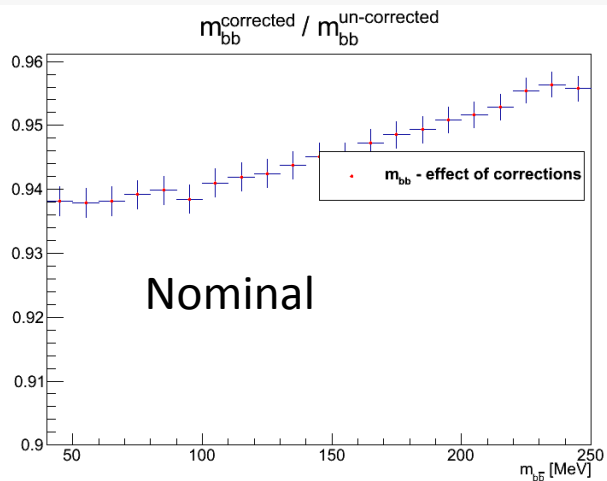
- From PC/subconveners meeting:
 - Latest circulation date to ATLAS is 17th February
 - Higgs approval to be arranged with Ed.Board
- In practice:
 - This means 2nd February Higgs approval for paper – very little margin
 - Plan is more clear for WH and ZH->llbb: need good 1st paper draft
 - Status is not as good for vvbb yet: work towards including in paper
 - Boosted VH in a parallel path for now: considering a note for Moriond
- To gain a few days (if needed):
 - ZH->vvbb will be submitted as support documentation to be included in paper
 - This means that we can turn it into CONF note if not in schedule for paper
 - Now thinking about editors for note
- Maybe wrong time to mention this but...
 - Looking into the future, aim to have combined WH analysis for ICHEP including boosted analysis
 - Or before... mention ICHEP to mean up to...
 - ttH can aim to have published results in same timescale

New b-tagging scale factors

- Fresh from the H.F. group:
 - Preliminary!
 - pTrel method only for now
 - May still get updated factors in early February
- We moved to MV1
 - Larger pT dependence now
 - What do we do with our recipe to apply SFs and estimate uncertainties?



Effect of new b-tagging scale factors



To do list

- For ZH- \rightarrow vvbb need to decide on:
 - Use of MET significance cut
 - pT cut on leading jet
 - Final analysis binning
 - QCD estimation method comparison and systematic uncertainty
- For all inclusive VH channels discuss:
 - Theory uncertainties
 - Limit setting and channel combination
 - Nvtx rescaling in MC11c
- Today:
 - Decide on the above – especially vvbb
 - Focus on inclusive VH analyses since they are urgent
 - Discuss other issues if we can (apologies if we need to postpone)

Backup slides

