ZH→ννbb news & plans

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ZH->ννbb phone meeting – 17/1/2012

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

- ZH->vvbb News:
  - Our request of 15M AFII Z->vv+h.f. was accepted in priority 1
    - It helped that we had AFII validation results
  - We now have an e-group: atlas-phys-higgs-hsg5zh2nunubb@cern.ch
    - https://e-groups.cern.ch/e-groups/Egroup.do?egroupName=atlas-phys-higgs-hsg5zh2nunubb
- 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

ZH→vvbb Publication Plans

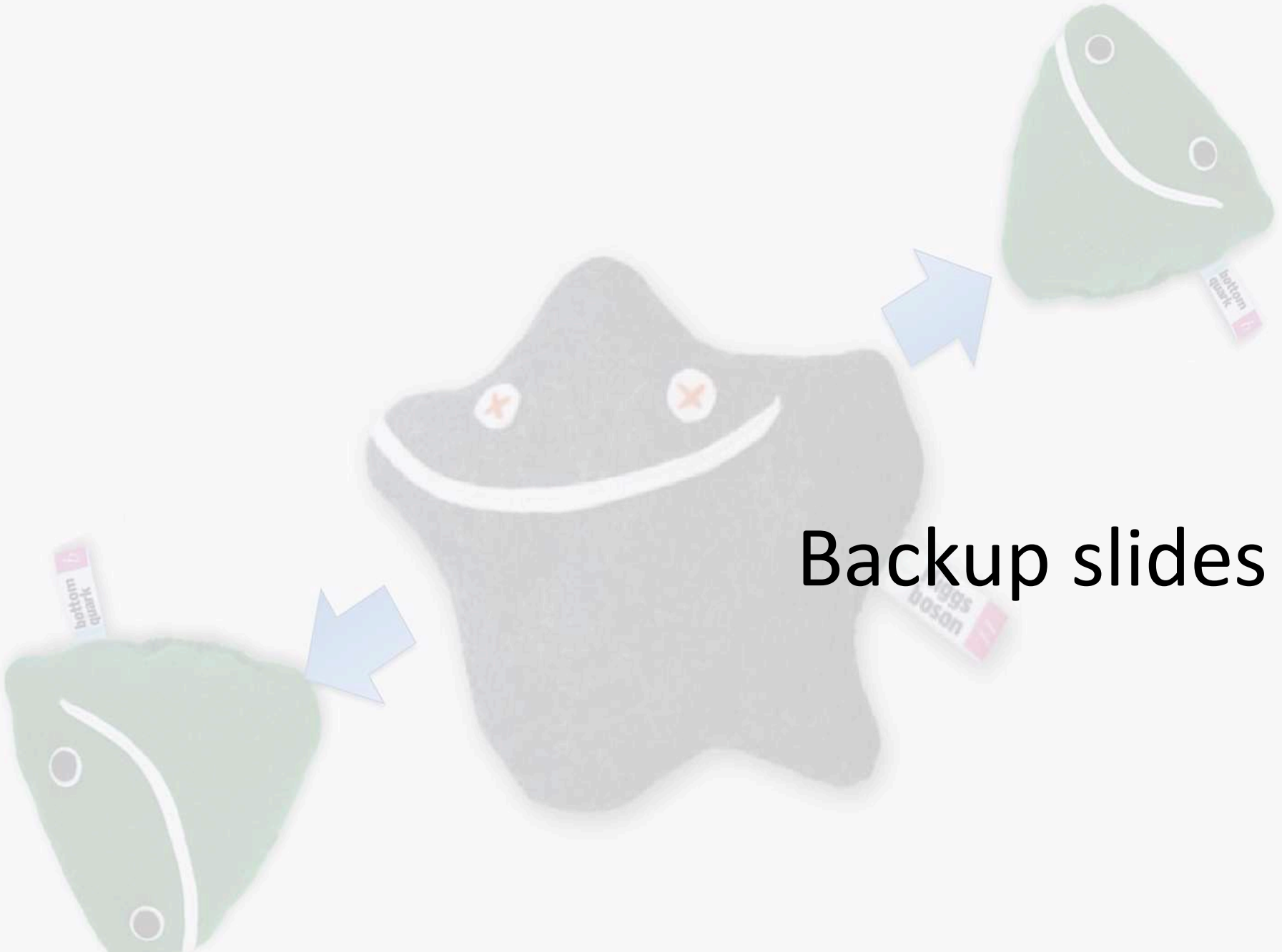
- From PC/subconveners meeting:
  - Latest circulation date to ATLAS is 17th February
  - Higgs approval to be arranged with Ed.Board
- In practice:
  - This means 2nd February Higgs approval for paper – very little margin
  - Plan is more clear for WH and ZH->llbb, the status is not as good for vvbb yet
- To gain a few days:
  - 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

To-do list

- Finalize cuts:
  - MET significance? pT(lead jet)>45GeV?
- Move to MV1?
- Cut flow comparison
- Data-driven methods:
  - QCD estimate – comparison of the two methods
  - EW control region
  - Trigger turn-on systematic uncertainty/SF
- Additional systematic uncertainties:
  - Including $P_T(H)$ theory uncertainty
- Limit setting and combination
- Write note draft

Regular meetings

- Propose additional short meetings on Friday:
  - Friday 20 – 10am
  - Tuesday 24 – regular slot
  - Friday 27 – 10am
  - Tuesday 31 – regular slot
  - Friday 3 – 10am
  - Tuesday 7 – regular slot
  - Friday 10 – 10am



Backup slides