

HSG5 Status

Paper/note circulation:

- Approval closure on Wednesday last week
- Circulated on Thursday
 - Currently getting comments
- Reading of draft 1 on 24th April
 - Presentation by Giacinto
- Inputs for combination ready
- Need to complete description of statistical treatment in support material

Internal Note

- Note started, but only skeleton:
 - [ATL-COM-2012-416](#)
- ttH working for 2011 analysis in mid May
 - In parallel to vector-like quarks
 - Request E.Board? N.Wermes, V.Martin, T.Golling, M.Corradi for existing VLQ ed.board
- Boosted H->bb ?
 - Pushing to get this going faster...
 - CMS will have analysis for ICHEP
 - Boosted Z->bb too far away – MC description very difficult (Py vs Hwg, LO vs NLO, etc)
 - But trigger for 2012 ok for now
- Walking technicolor analysis could be done quickly from ZH analysis
 - But may be better in H->ZZ->llqq

2012 MC:

- ... ongoing ...
- Backgrounds need Z->vv
- Dibosons seem to small (and need Z->vv)
- Will try to move as much as possible to AFII
- But boosted analysis may suffer from this

CP involvement

- Trigger – several points of contact:

- vvb: Yoshikazu Nagai (CPPM) and Kenji Kiuchi (Tsukuba)
- Boosted Z->bb: Luke Lambourne (UCL)
- VBF: Eric Ouellette

- Jets:

- Major systematic uncertainty
- Need to:
 - Move to new JES
 - Use b-jet semileptonic correction
- b-JES?... presentation by D.L.Mateos in HSG5
- Possible involvement in work on b-jet resolution

- B-tagging:

- Major systematic uncertainty:
- Improvement expected from top b-tagging analysis – unknown timescale
- Possible involvement through new method using tt (C.Schiavi)