

HSG5 Status

- Paper circulation:
 - First reading went well
 - Getting ready for 2nd circulation
 - Slight delay due to SVN problem
- Combination:
 - Inputs for combination: separated WH/ZH for vvbb
- Other channels:
- Walking technicolor analysis:
 - Waiting for MC for 1 model point to see if we have exclusion
 - Preliminary results shown 2 weeks ago from 1 channel:
 - <https://indico.cern.ch/conferenceDisplay.py?confId=187283>
 - Other possibilities: could look at A->Zh->llbb as well (HSG2?)
- Boosted H->bb ?
 - Starting weekly working meetings
 - Ongoing...
- ttH working for 2011 analysis in mid May
 - Starting weekly working meetings
 - Ongoing...
- WZ->lvbb: use as a calibration for H->bb mass peak
 - Proposed by CERN group for ICHEP
 - Simple mods from existing analysis
 - Expect first preliminary results this week – then we can think what to do
- Internal Note
- Note started, but only skeleton: [ATL-COM-2012-416](#)
- Working on this; will send first draft to various analysts this week to fill in
- Will be a “statement of intention” instead of a deep study...
 - To do for WH/ZH:
 - Fits to the signal and backgrounds in the limit setting
 - New jet calibration
 - New b-tagging corrections (top SFs in ~1 month)
 - Further suppression of top background
 - Improving the theory description of the data and systematics
 - etc
 - But... we are dominated by systematics!
 - Big effect from higher pileup expected:
 - Forward jet veto and exclusive jet categories
 - Likely to need changes to jet selection
 - B-tagging working point may need to change
 - We won't have until sometime in May
 - Need to explore new discriminating variables
 - Other analyses: hope to have ttH and boosted H->bb
- Should have a H->bb workshop!
 - Last week of June?
 - Plan for analyses in the run up to September Strategy Meeting