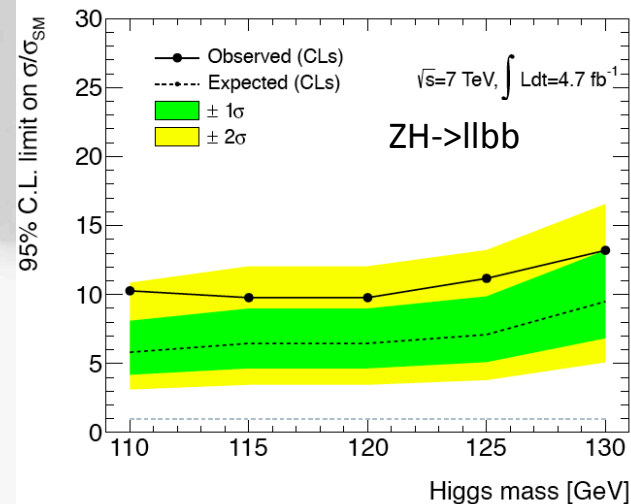
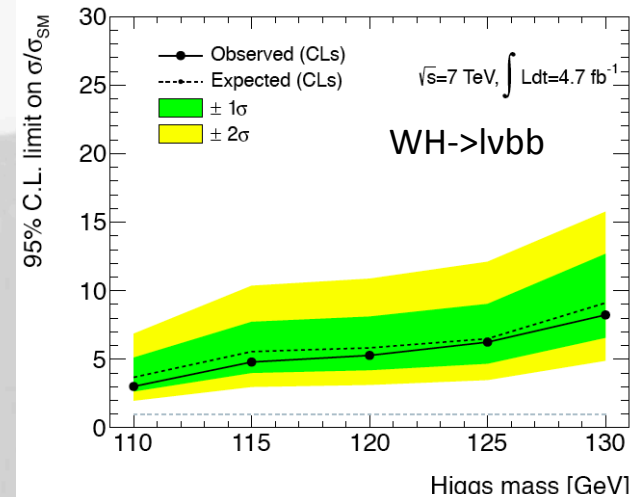
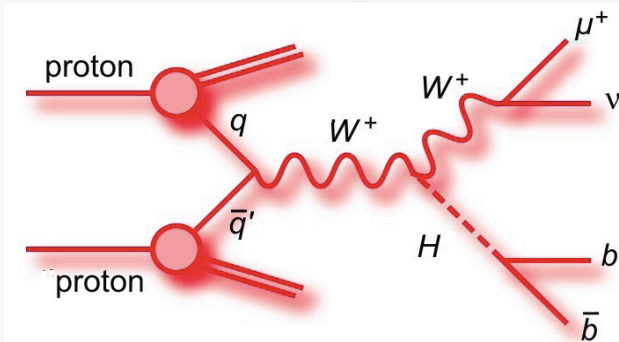


H->bb Status and Plans

- Difficult analyses!
 - But important to add much needed sensitivity
 - Later will be essential for measuring Higgs properties
- Several strands of activity:
 - **Inclusive analyses:**
 - WH->lvbb/ZH->llbb
 - 1st LHC H->bb results (1fb⁻¹) made public for EPS 2011
 - ZH->vvbb
 - 1st ATLAS results to show at Moriond
 - ttH, H->bb
 - first data-based results obtained Jan.2012
 - VBF H->bb
 - **Jet-substructure analyses:**
 - Novel technique, difficult and yet unproven
 - First W mass plot shown in EPS 2011
 - WH/ZH – note in preparation
 - Z->bb – calibration channel – promising results!



Extremely preliminary

H->bb Status and Plans

- Current plans for Moriond:
 - Publication on inclusive WH/ZH
 - Advanced stage – paper draft being circulated to Higgs group today
 - Aim to contribute to 2011 ATLAS + CMS combination
 - Include ZH->vvbb
- Longer-term plans:
 - Improve sensitivity of course!...
 - For Summer (ICHEP etc) and later:
 - Merge sub-jet and inclusive analyses – jet substructure may improve highest $p_T(H)$ bin of inclusive analyses
 - Multivariate techniques - ongoing
 - New channels: ttH, VBF H->bb, boosted gg->H?
 - Add new 2012 data!
- Analyses depend **crucially** on good performance:
 - Trigger
 - Jet, MET, b-tagging trigger crucial for several analyses: VBF, Z->bb
 - Looking into possibility of using low-priority stream to keep lower-threshold events
 - B-tagging – lots of fruitful interaction with H.F. group
 - Jet reconstruction – to be strengthened
 - Pileup rejection

