

HSG5: Plans for January/Moriond

- Ongoing: preparations for paper on WH/ZH→llbb for January
 - COM note (ATL-COM-PHYS-2011-1648): <https://cdsweb.cern.ch/record/1404176?>
 - SVN area for note:
https://svnweb.cern.ch/trac/atlasgrp/browser/Physics/Higgs/HSG5/data_7TeV/ATL_COM_PHYS_2011_1648
 - Results (limits) expected tonight...
- Stat and lumi only:
 - Lianliang:

| mH | observed | median | +2 sigma | +1 sigma | -1 sigma | -2 sigma |
|-----|----------|--------|----------|----------|----------|----------|
| 120 | 4.916 | 3.690 | 6.878 | 5.131 | 2.656 | 1.979 |
 - Lilje:

| mH | observed | median | +2 sigma | +1 sigma | -1 sigma | -2 sigma |
|-----|----------|---------|----------|----------|----------|----------|
| 120 | 4.91408 | 3.68994 | 6.88497 | 5.13585 | 2.65908 | 1.98069 |
- For Moriond:
 - ZH→vvbb – need to urgently review some missing MC (Z→vv+H.F.)
 - Boosted VH – mostly WH→lvbb
- ttH results expected this week in rel.16, 1fb-1, but for beyond Moriond

Statistical only limits:

| | obs | exp | +2sig | +1sig | | | |
|------|-----|-------|-------|--------|-------|-------|-------|
| comb | 120 | 4.599 | 3.015 | 5.619 | 4.191 | 2.170 | 1.616 |
| WH | 120 | 4.916 | 3.690 | 6.878 | 5.131 | 2.656 | 1.979 |
| ZH | 120 | 7.596 | 5.439 | 10.139 | 7.563 | 3.916 | 2.917 |

With overall uncertainty:

| | obs | exp | +2sig | +1sig | | | |
|------|-----|-------|-------|--------|-------|-------|-------|
| comb | 120 | nan | 3.681 | 6.863 | 5.119 | 2.650 | 1.974 |
| WH | 120 | 5.224 | 4.590 | 8.555 | 6.382 | 3.304 | 2.461 |
| ZH | 120 | 8.269 | 6.133 | 11.414 | 8.514 | 4.408 | 3.284 |