

DESY ATLAS Higgs activities

November 16, 2015

DESY ATLAS Higgs team.

SFB B9 activities

Yanping Huang, Shuo Han (visitor from IHEP Beijing), Kerstin Tackmann

Higgs YIG activities

Nick Styles, Yanping Huang, Chris Hengler, Marco Filipuzzi, Cong Peng (joined with IHEP Beijing), Kerstin Tackmann

Elisabeth Petit (until recently)

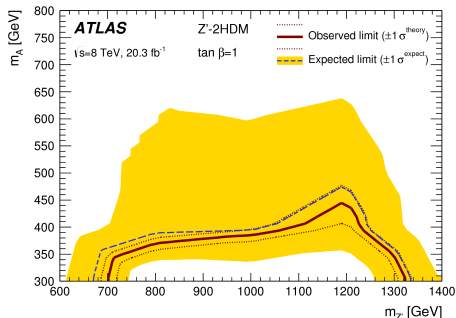
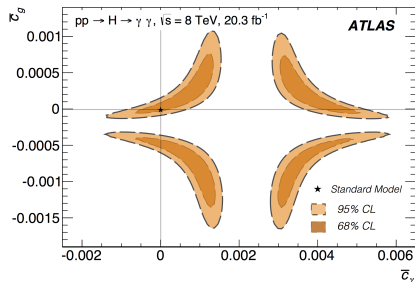
Phill Hamnett, Martin Bessner (joined photon performance work)

Other ATLAS Higgs activities

Jike Wang, James Robinson, Alexander Madsen, Krisztian Peters

Recent and ongoing Run1 analyses.

- Couplings, mass and differential cross sections in $H \rightarrow \gamma\gamma$ (Elisabeth, Yanping, Chris, Marco, Cong, Kerstin, Krisztian@CERN)
- Narrow resonance search in $\gamma\gamma$ (Elisabeth)
- EFT interpretation of $H \rightarrow \gamma\gamma$ differential cross sections (Yanping)
- $H \rightarrow WW$ high mass (Yanping)
- Search for dark matter produced in association with $H \rightarrow b\bar{b}$ (Jike) or $H \rightarrow \gamma\gamma$ (Krisztian@CERN)
- Photon reconstruction and identification (Elisabeth, Chris, Kerstin)



Ongoing Run2 analyses.

- $H \rightarrow Z\gamma$ search (Yanping, Shuo)
- $H \rightarrow \gamma\gamma$ couplings (Nick) and cross section (Yanping, Cong, Krisztian)
- Les Houches/LHC HXSWG simplified cross section discussion (Kerstin)
- $HH \rightarrow b\bar{b}\gamma\gamma$ search (James, Jake, Krisztian)
- $H \rightarrow$ invisible in VBF production (Alexander, Krisztian)
- Photon reconstruction and identification (Elisabeth, Yanping, Cong, Shuo, Phill, Martin, Kerstin)

