

Discussion on BSM Higgs Searches at ATLAS/CMS

Sven Heinemeyer, IFCA (CSIC, Santander)

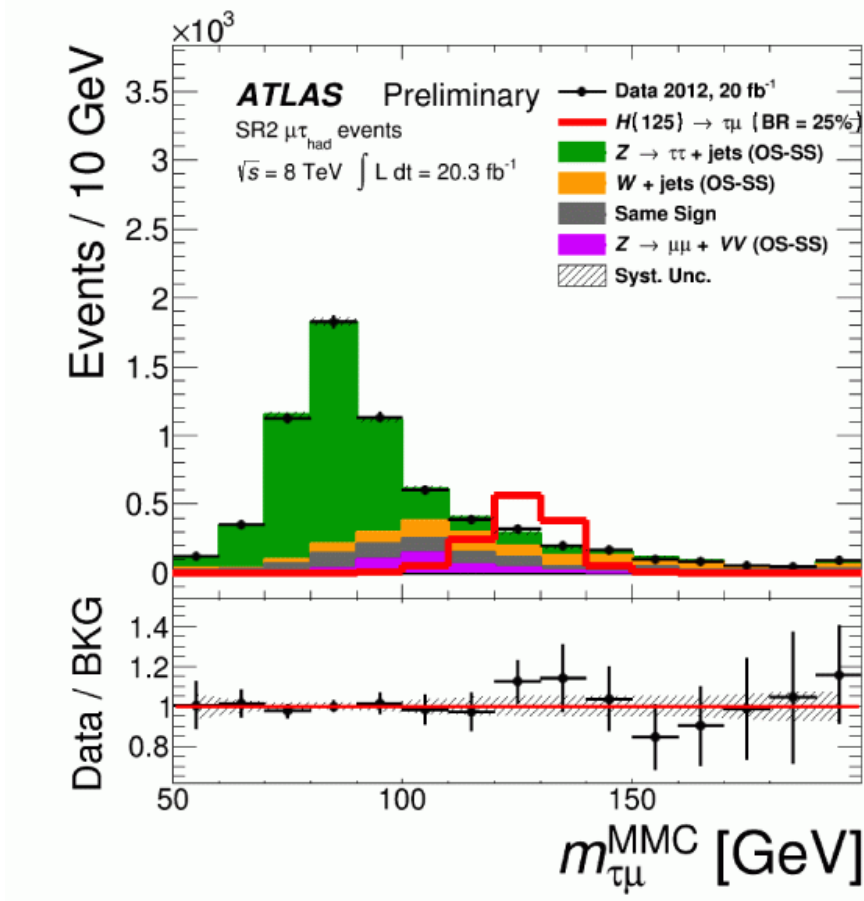
Orsay, 07/2015

⇒ brief comparison of (some of) the results

⇒ just three examples (personal choice)

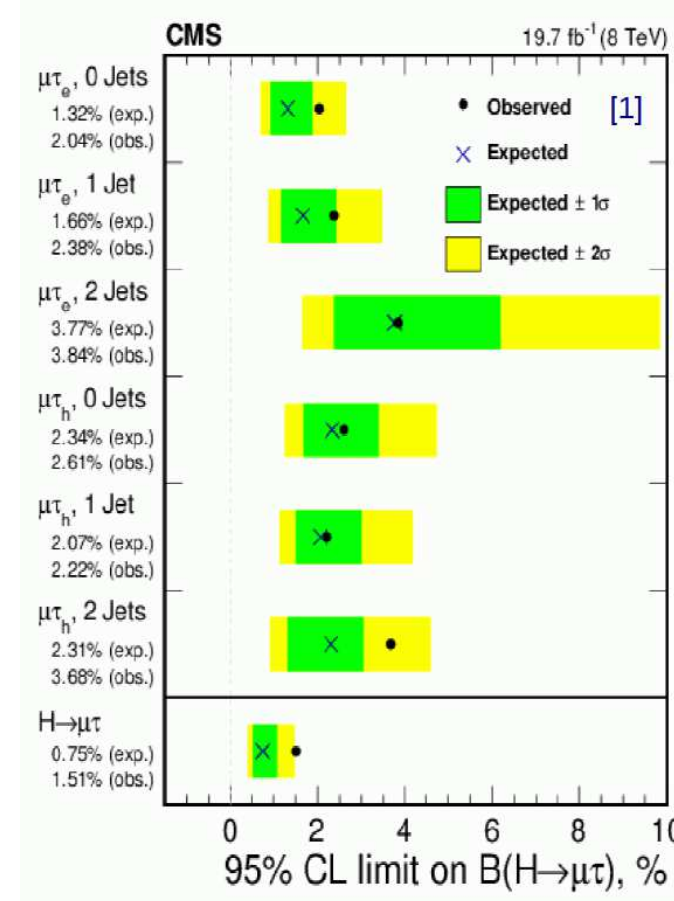
Flavor violating Higgs decay:

ATLAS:



$$\text{BR}(H \rightarrow \tau\mu) = 0.77 \pm 0.62\%$$

CMS:

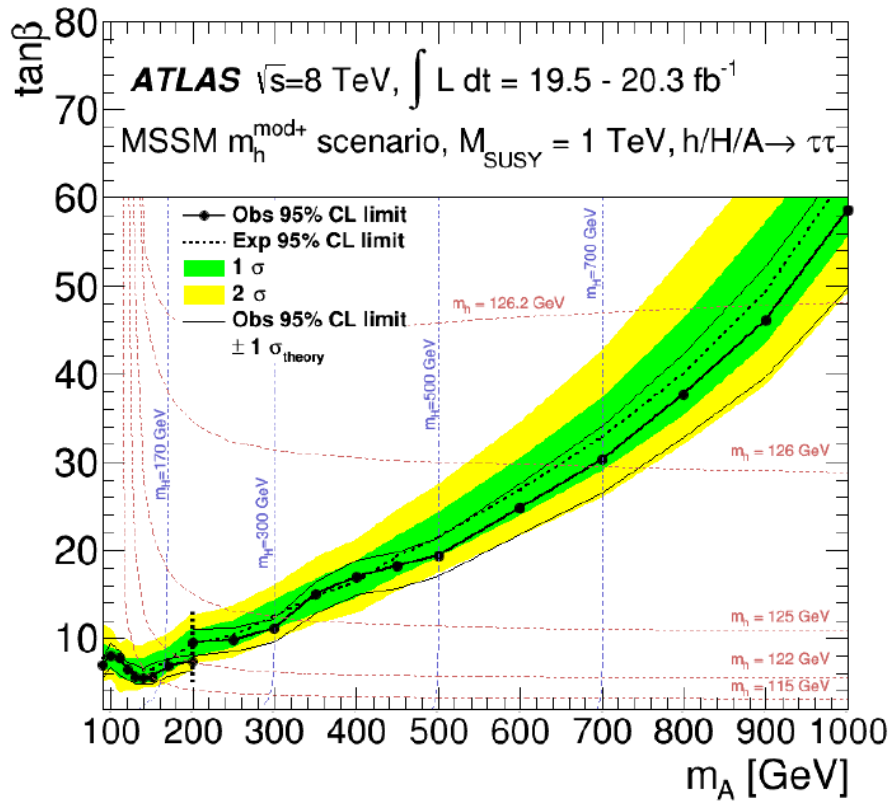


$$\text{BR}(H \rightarrow \tau\mu) = 0.84 \pm 0.39\%$$

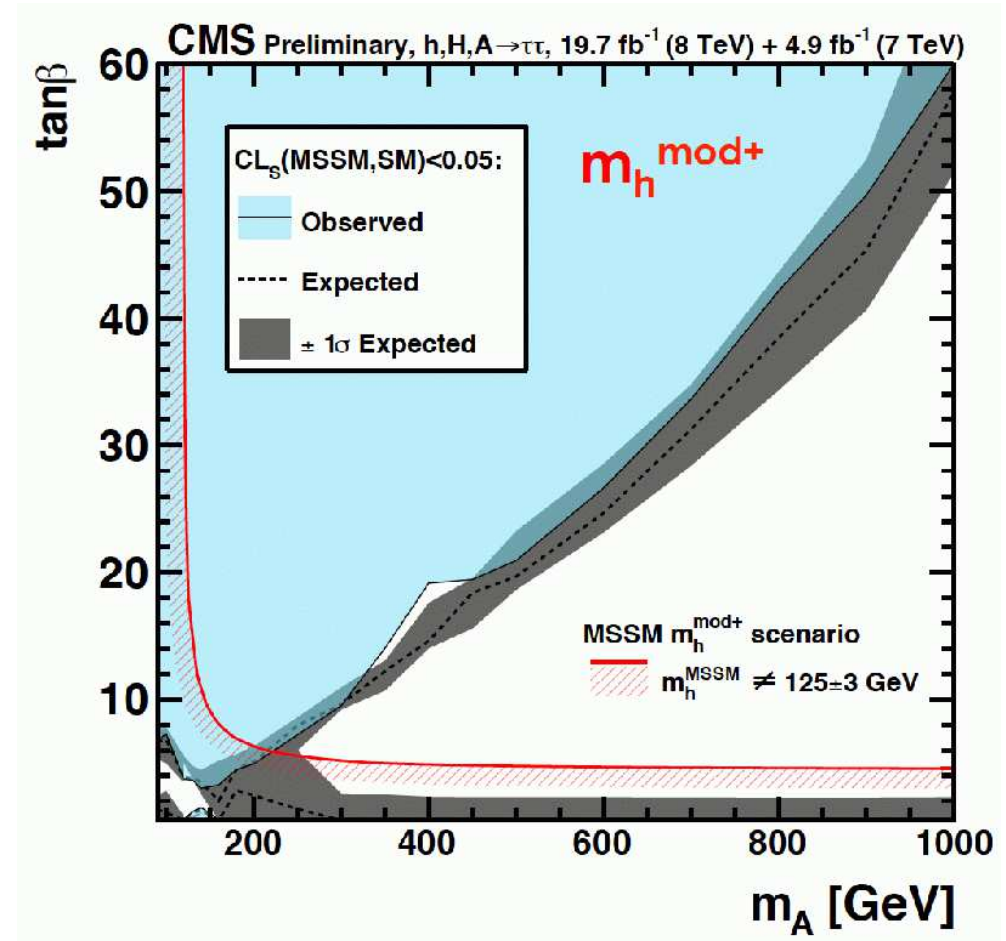
⇒ ATLAS precision(!) results needed to confirm/reject!
 Other (flavor) tests?

MSSM-type heavy Higgs searches

ATLAS:



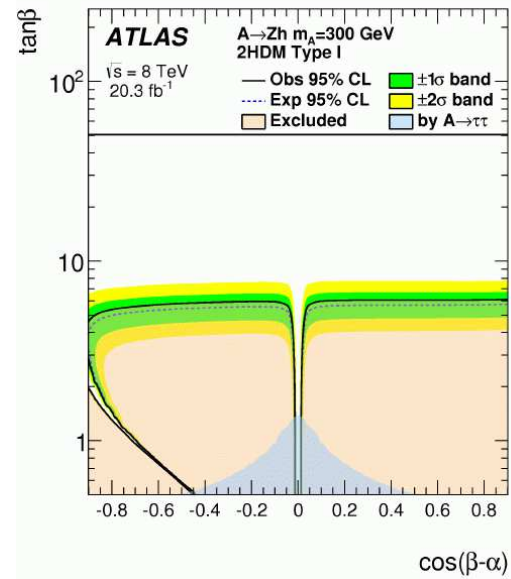
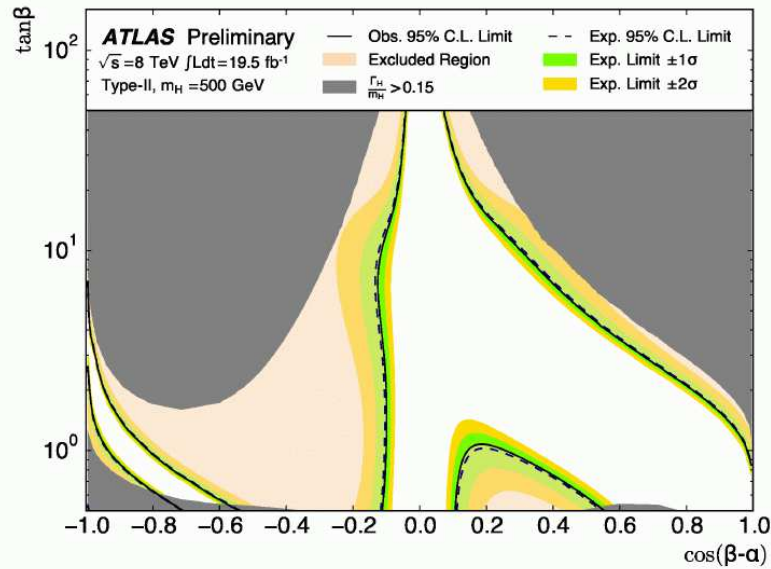
CMS:



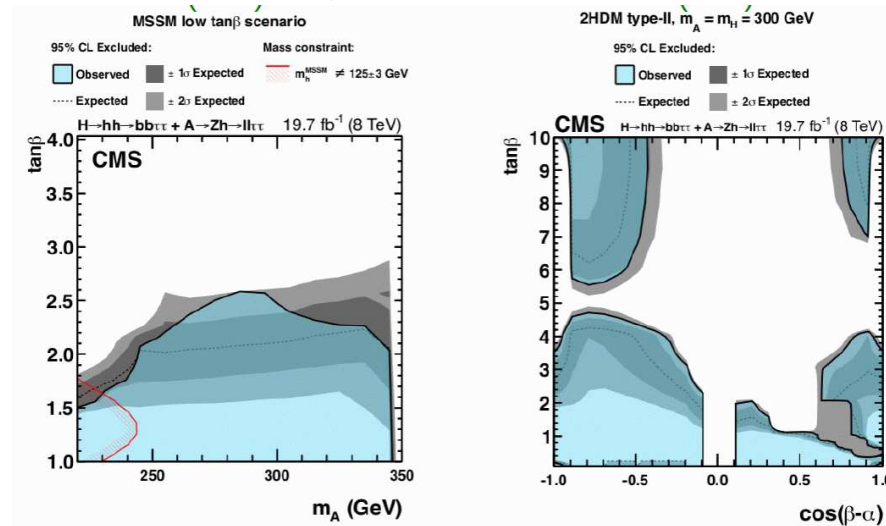
⇒ applicable to other models?! Two cross sections contribute ...

$H \rightarrow hh, A \rightarrow Zh$:

ATLAS:



CMS: (both channels combined)



\Rightarrow display Higgs rate and search results together?