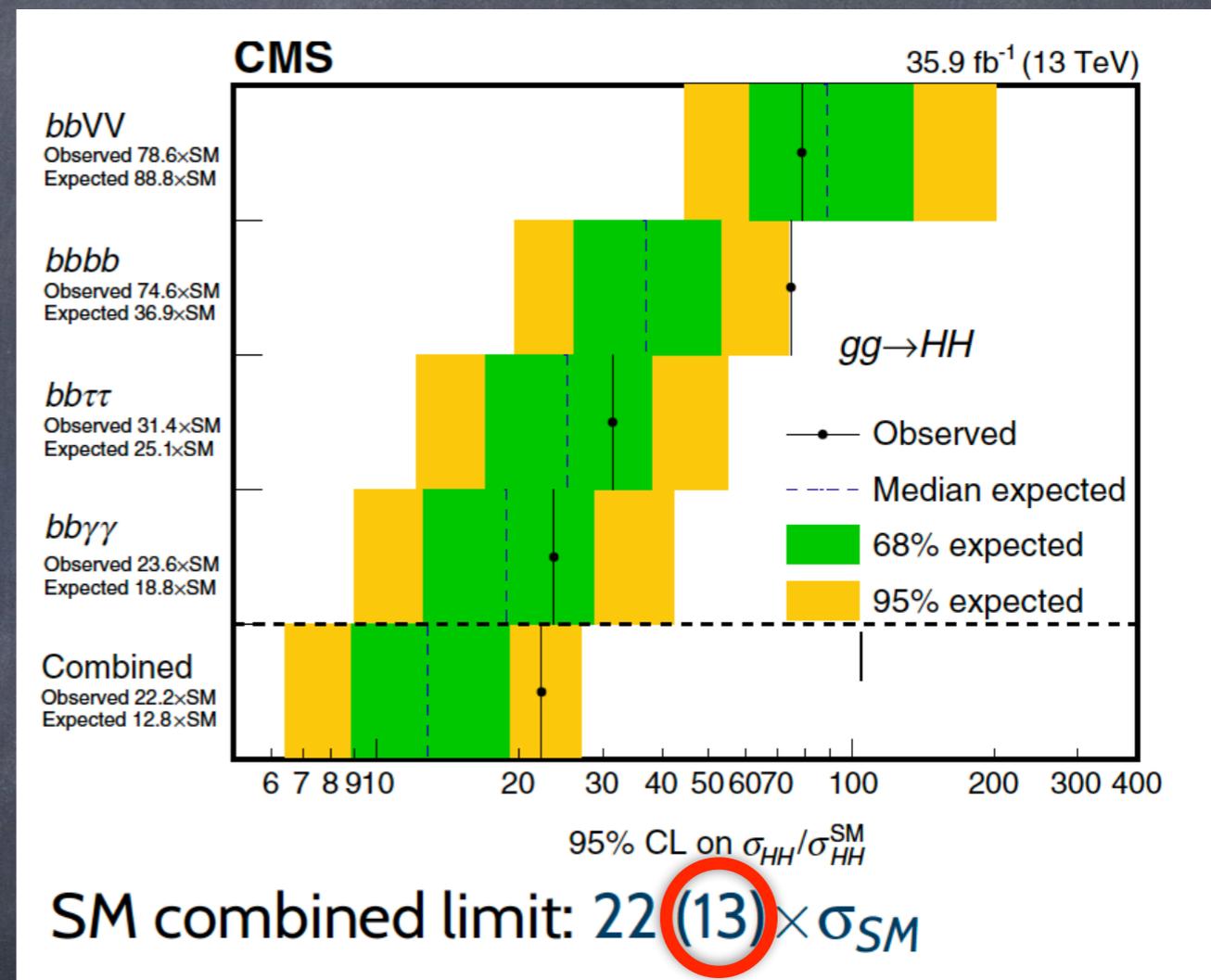
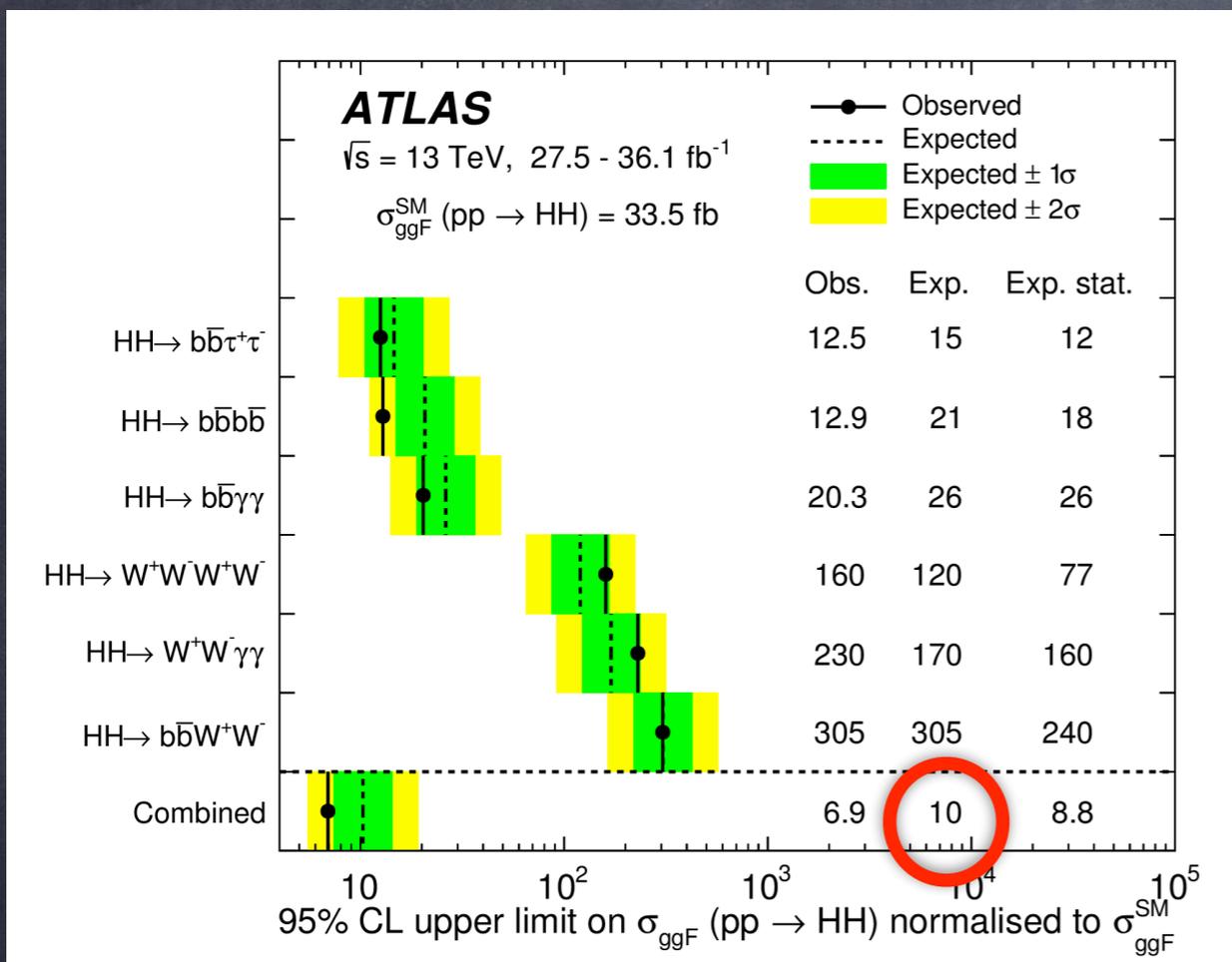


Few Comparison  
slides: HH

# HH production cross-section

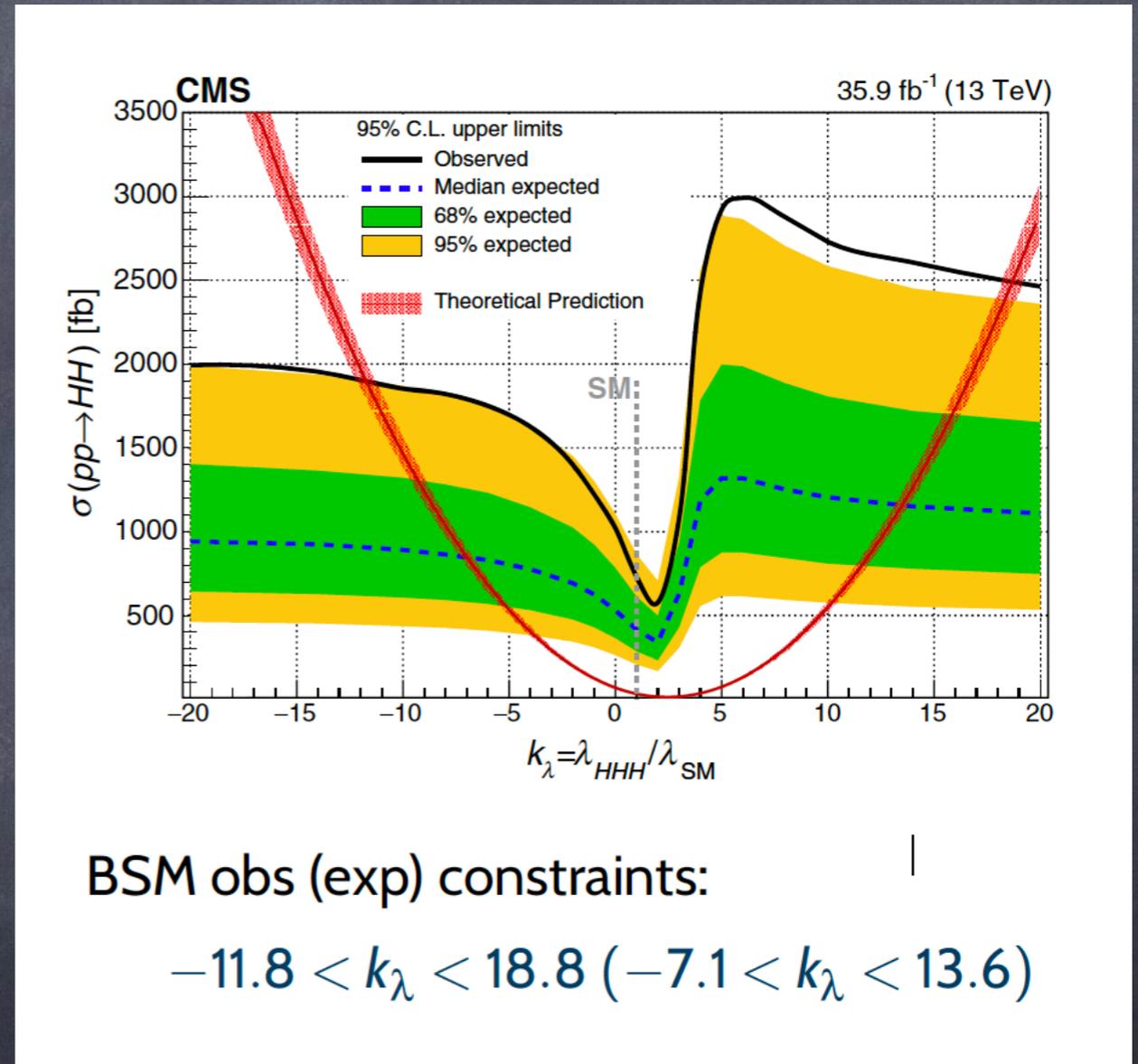
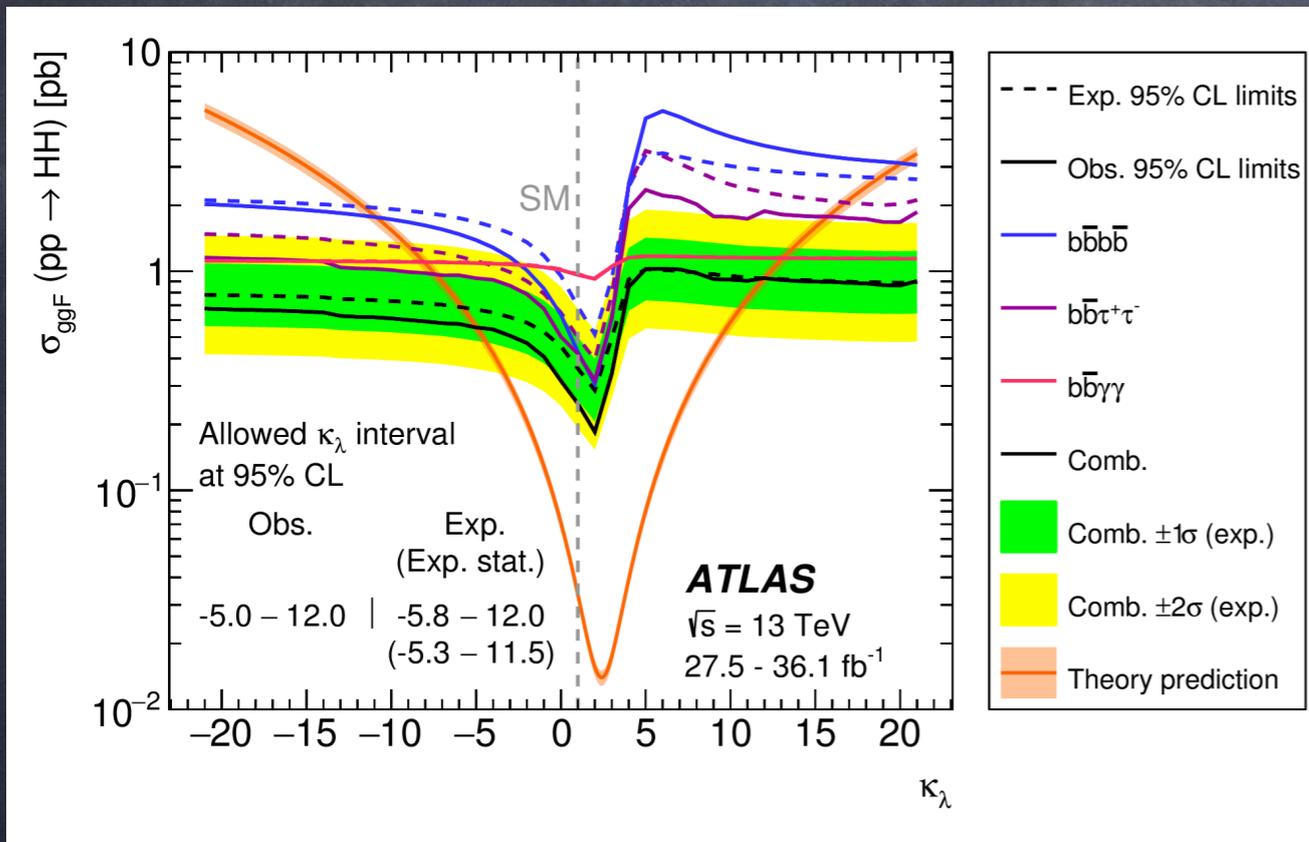


2l2nu2b

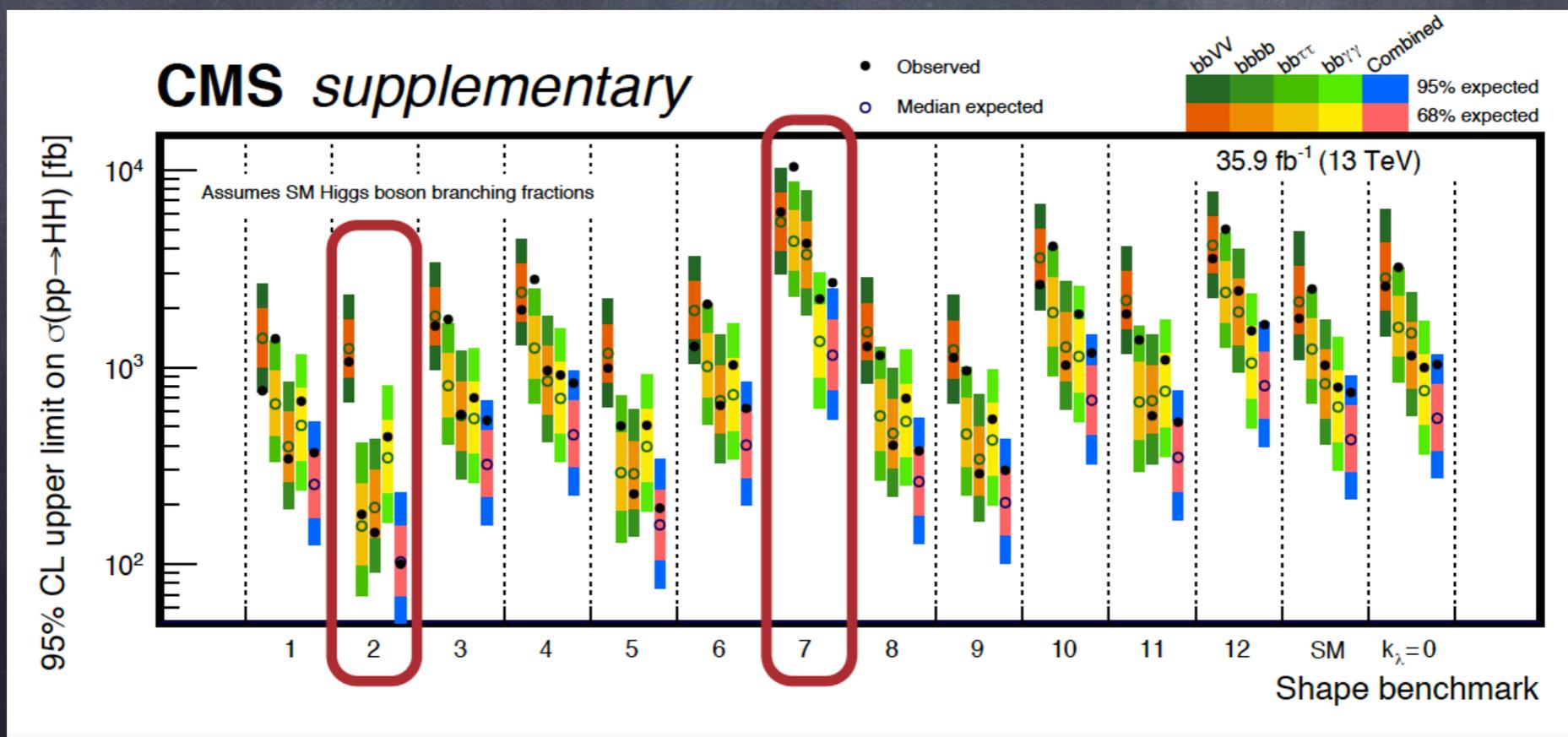
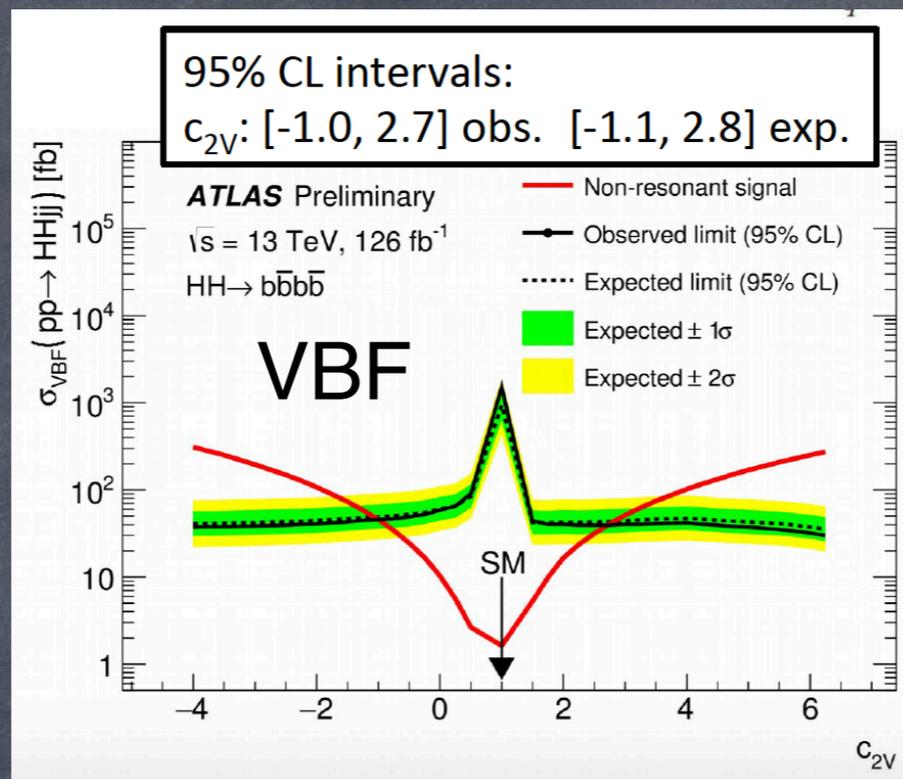
$139 \text{ fb}^{-1}$  95% CL upper limit at  $k_\lambda = 1$  (SM)

	-2 $\sigma$	-1 $\sigma$	Expected	+1 $\sigma$	+2 $\sigma$	Observed
$\sigma (gg \rightarrow HH) [\text{pb}]$	0.5	0.6	0.9	1.3	1.9	1.2
$\sigma (gg \rightarrow HH) / \sigma_{ggF}^{SM} (gg \rightarrow HH)$	14	20	29	43	62	40

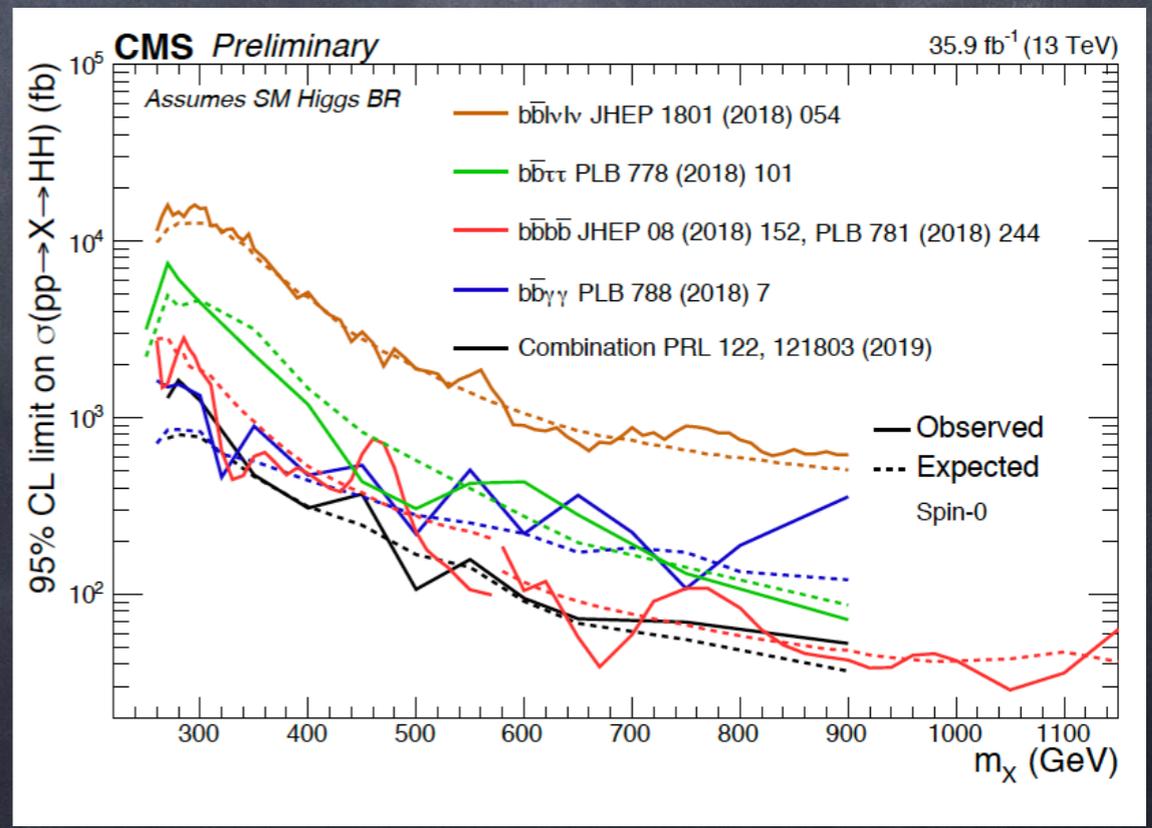
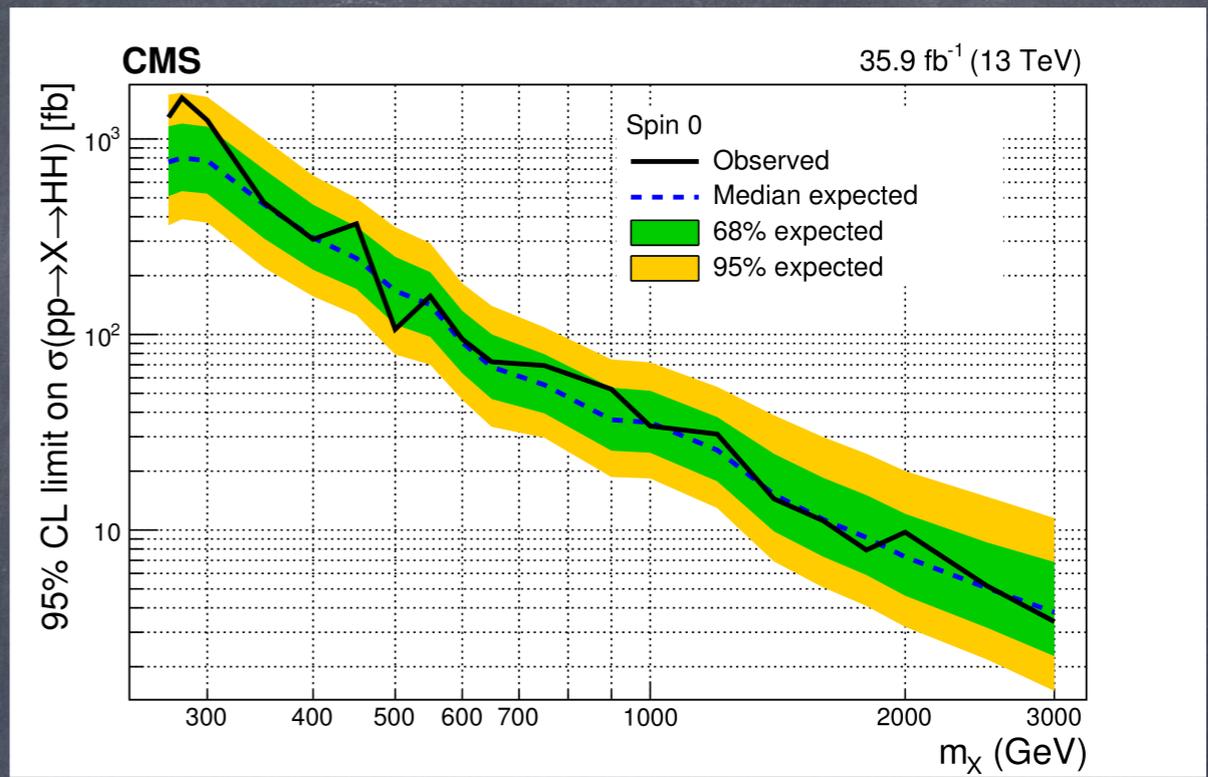
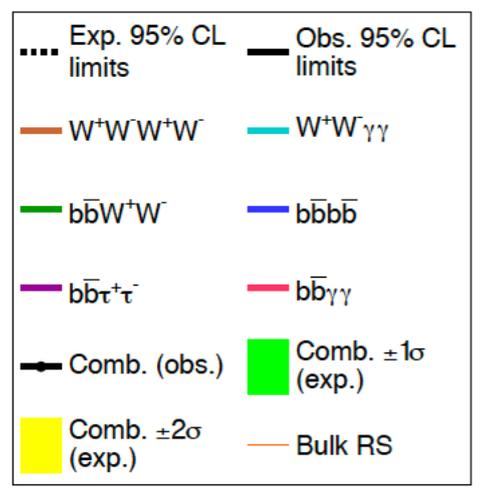
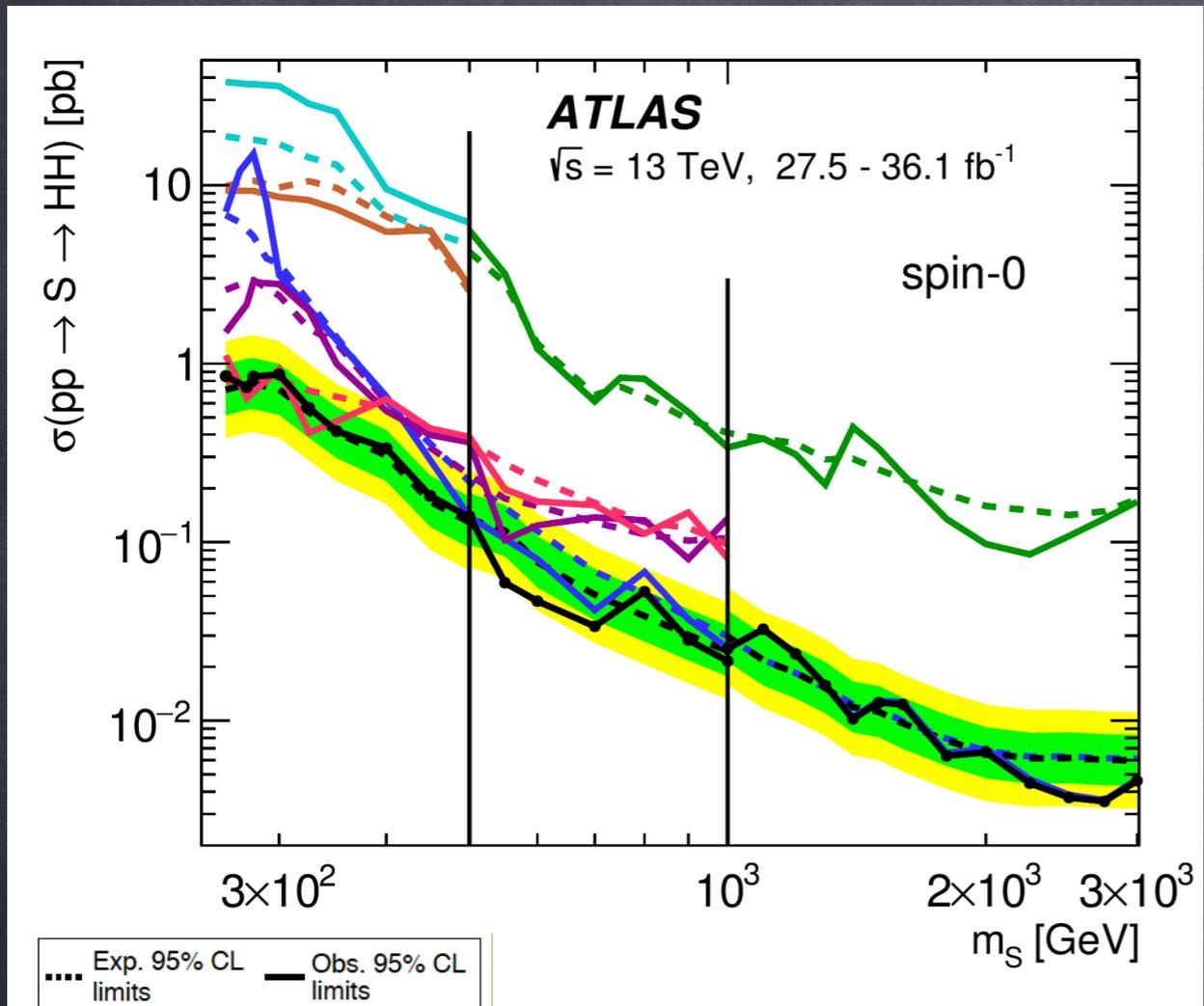
# Higgs trilinear coupling



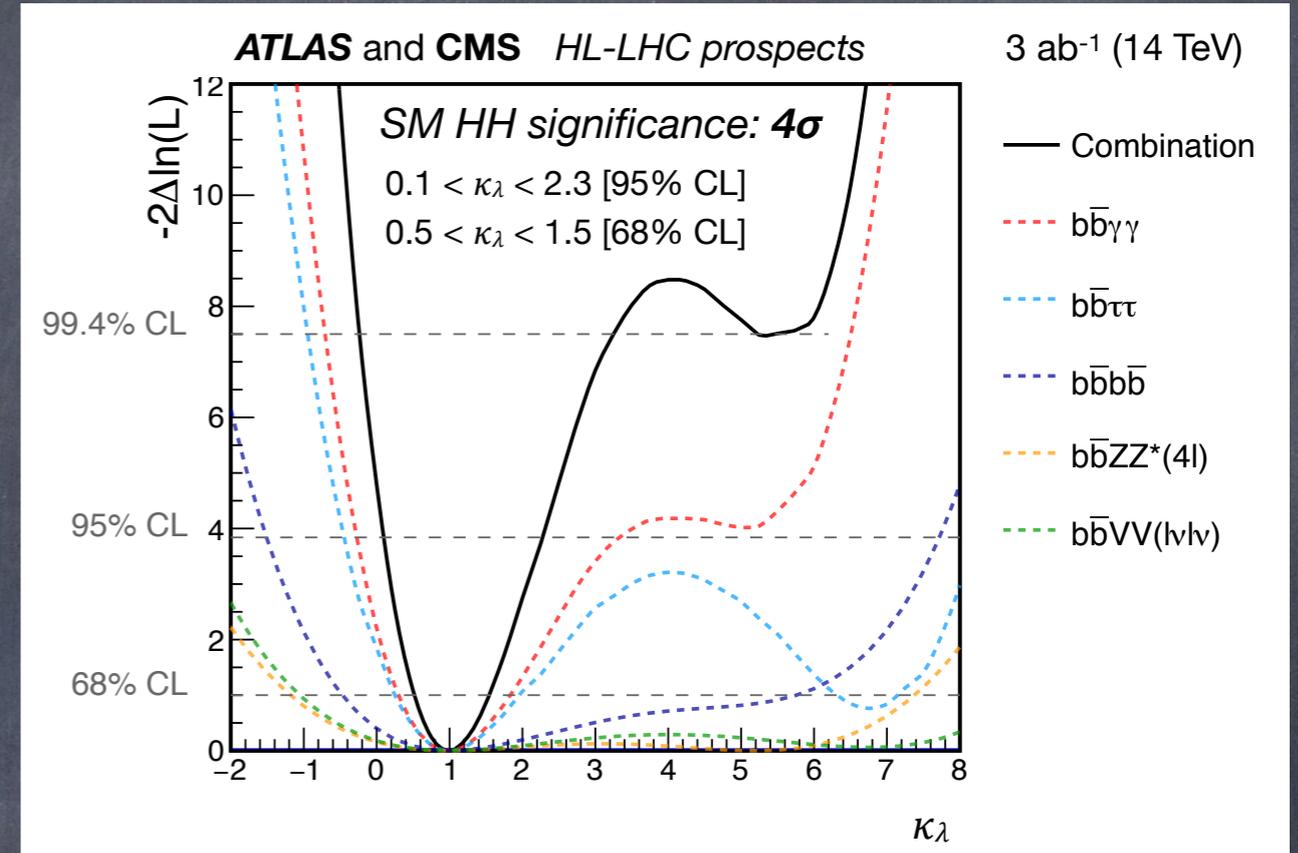
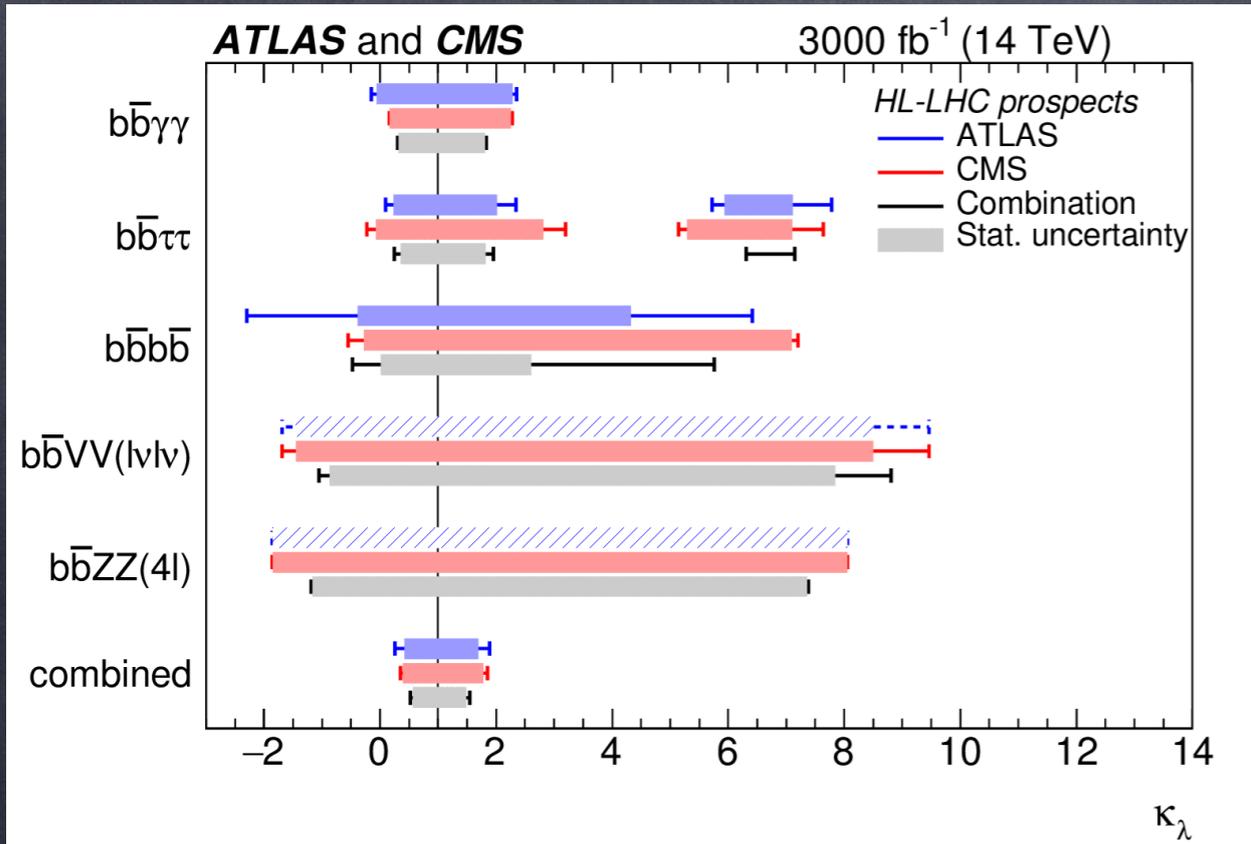
# Going further



# Resonant



# HL-LHC?



	Statistical-only		Statistical + Systematic	
	ATLAS	CMS	ATLAS	CMS
$HH \rightarrow b\bar{b}b\bar{b}$	1.4	1.2	0.61	0.95
$HH \rightarrow b\bar{b}\tau\tau$	2.5	1.6	2.1	1.4
$HH \rightarrow b\bar{b}\gamma\gamma$	2.1	1.8	2.0	1.8
$HH \rightarrow b\bar{b}VV(l\nu\nu)$	-	0.59	-	0.56
$HH \rightarrow b\bar{b}ZZ(4l)$	-	0.37	-	0.37
combined	3.5	2.8	3.0	2.6
	Combined		Combined	
	4.5		4.0	

