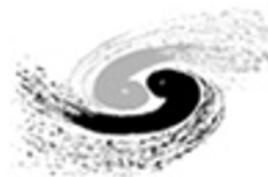




Weekly report

Fangyi Guo



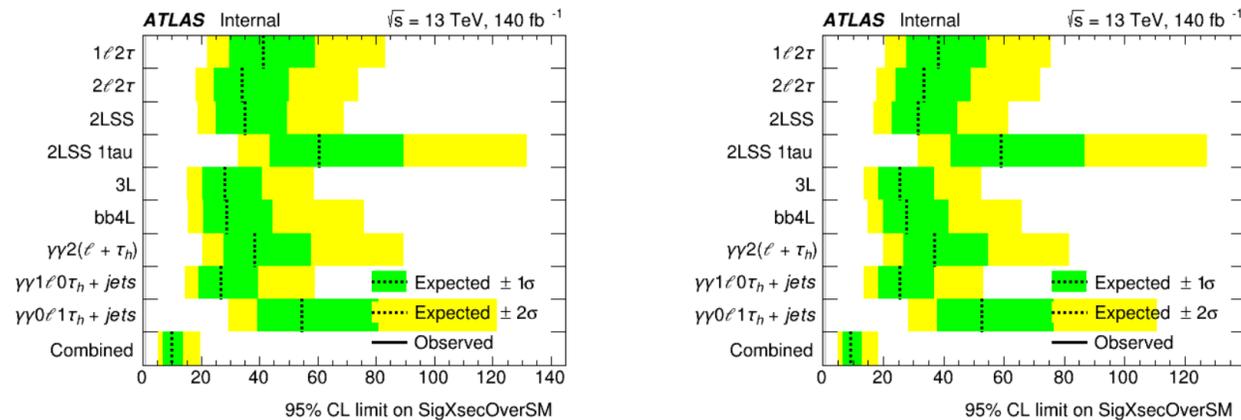
中國科學院高能物理研究所

Institute of High Energy Physics Chinese Academy of Sciences

HH Multilepton



- **Combination: updated with the new 2lss1tau channel**



Channels	Stats. Only	Stats.+ full syst.
2lSS	31.62 ^{44.76} _{22.79}	34.81 ^{49.61} _{25.08}
3l	25.58 ^{37.00} _{18.43}	28.13 ^{40.94} _{20.27}
bb4l	27.62 ^{41.76} _{19.90}	28.71 ^{44.41} _{20.68}
1l+2tau _{had}	38.31 ^{54.33} _{27.60}	41.21 ^{58.92} _{29.70}
2l+2tau _{had}	33.46 ^{49.12} _{24.11}	33.99 ^{50.09} _{24.49}
2lSS+1tau _{had}	59.00 ^{86.81} _{42.51}	60.55 ^{89.31} _{43.63}
gamma gamma +1l0tau _{had}	25.43 ^{36.95} _{18.32}	26.68 ^{39.53} _{19.23}
gamma gamma +0l1tau _{had}	52.50 ^{76.57} _{37.90}	54.50 ^{80.98} _{39.27}
gamma gamma +2L	37.05 ^{54.86} _{26.70}	38.21 ^{57.76} _{27.53}
Combined	9.25 ^{13.16} _{6.66}	9.74 ^{13.94} _{7.02}

Figure 139: Expected individual and combined upper limits in channels, with full systematic uncertainties (left) and statistics only (right).

- INT note updated, but no much difference with the previous version.
- Cross check with quickFit:
 - 2lss1tau channel: $UL_{-1\sigma}^{+1\sigma(+2\sigma)} = 60.55_{43.63}^{89.32} (131.74)$. No much difference with TRexFitter.
 - Is going to check the other channels and combination.

Others



- **HGam H-V CP analysis with partial Run 3**
 - Will kick-off in tomorrow's HGam meeting.
 - IHEP group: us and Zhijun's group.
 - FTE: Yaquan (0.1), Fangyi (0.3), Shudong (0.4), Liyan (0.6)

- **H-V CP combination for Run 2**
 - Full Run 2 HGam + HZZ + Htautau (WIP) + HWW(differential analysis).
 - Will kick-off on Wednesday.
 - IHEP+MSU group.
 - FTE: Fangyi (0.2).