

$$|f_{LV}V_{tb}| = \sqrt{\frac{\sigma_{\text{meas}}}{\sigma_{\text{theo}}}} \text{ from single top quark production}$$

σ_{theo} : NLO+NNLL MSTW2008nnlo
PRD 83 (2011) 091503, PRD 82 (2010) 054018,
PRD 81 (2010) 054028

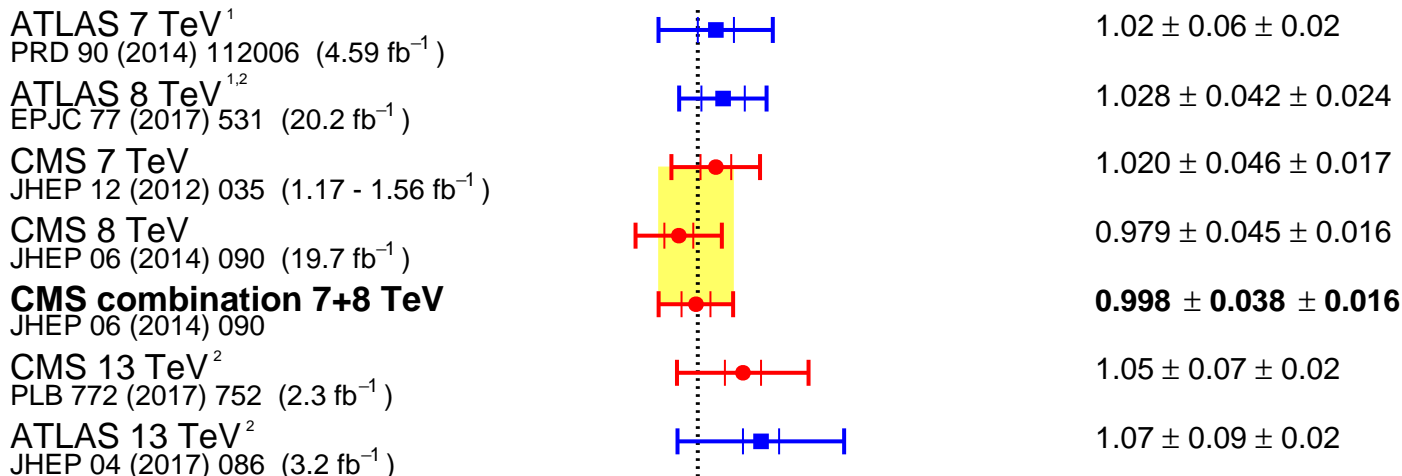
$\Delta\sigma_{\text{theo}}$: scale \oplus PDF

$m_{\text{top}} = 172.5 \text{ GeV}$

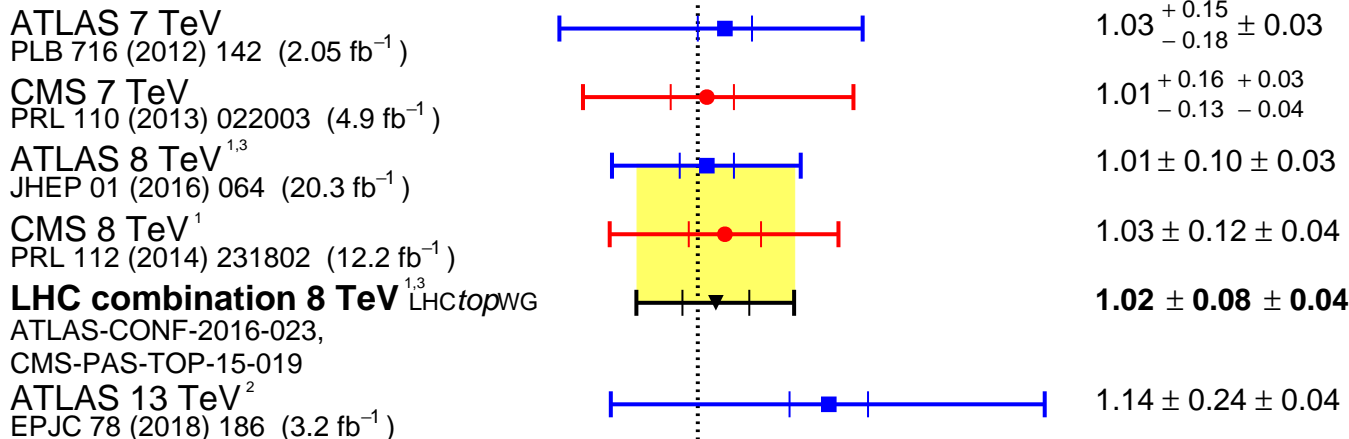


$|f_{LV}V_{tb}| \pm (\text{meas}) \pm (\text{theo})$

t-channel:



Wt:



s-channel:



¹ including top-quark mass uncertainty
² σ_{theo} : NLO PDF4LHC11
³ NPPS205 (2010) 10, CPC191 (2015) 74
including beam energy uncertainty

0.4 0.6 0.8 1 1.2 1.4 1.6 1.8

$|f_{LV}V_{tb}|$