59.0 fb<sup>-1</sup> (13 TeV) 2018 Events JES\_SinglePiHCAL central) CMS 22000  $(sys + 1\sigma)$ Simulation (sys -1σ) 20000 single top V+jets 18000 16000 14000 12000 10000  $|\Delta_y| < 1.0$ 8000  $|\Delta_y| > 1.0$ 6000 4000 2000 rel unc t<del>ī</del> 0.004 0.002 0 -0.002-0.004460-560 230-250 250-270 270-290 290-310 310-340 340-380 380-440 440-3000 100-280 280-320 320-360 400-460 100-210 210-230 560-3000 360-400

 $M_{bl}$  [GeV/c<sup>2</sup>]