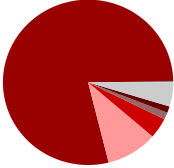


CMS Simulation Preliminary SL (4 jets, ≥ 3 b tags) Pre-fit expectation

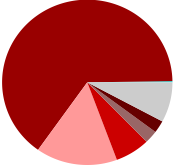
$t\bar{t}+lf$ node

S/B = 0.0018, S/ \sqrt{B} = 0.23



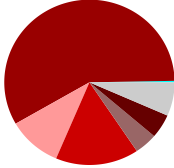
$t\bar{t}+c\bar{c}$ node

S/B = 0.0021, S/ \sqrt{B} = 0.15



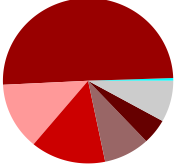
$t\bar{t}+b$ node

S/B = 0.0029, S/ \sqrt{B} = 0.15



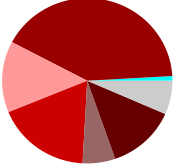
$t\bar{t}+2b$ node

S/B = 0.0053, S/ \sqrt{B} = 0.28



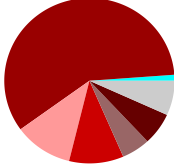
$t\bar{t}+bb$ node

S/B = 0.0092, S/ \sqrt{B} = 0.33



$t\bar{t}H$ node

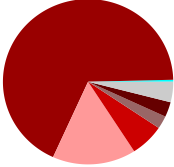
S/B = 0.0118, S/ \sqrt{B} = 0.76



CMS Simulation Preliminary SL (5 jets, ≥ 3 b tags) Pre-fit expectation

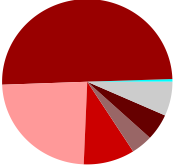
$t\bar{t}+lf$ node

S/B = 0.0039, S/ \sqrt{B} = 0.42



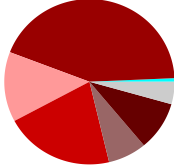
$t\bar{t}+c\bar{c}$ node

S/B = 0.0053, S/ \sqrt{B} = 0.31



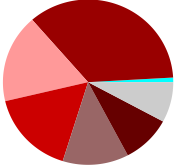
$t\bar{t}+b$ node

S/B = 0.0070, S/ \sqrt{B} = 0.33



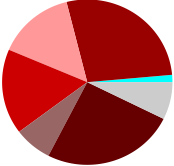
$t\bar{t}+2b$ node

S/B = 0.0090, S/ \sqrt{B} = 0.41



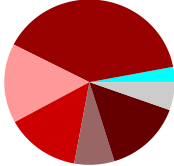
$t\bar{t}+bb$ node

S/B = 0.0144, S/ \sqrt{B} = 0.60



$t\bar{t}H$ node

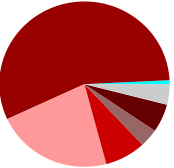
S/B = 0.0307, S/ \sqrt{B} = 1.59



CMS Simulation Preliminary SL (6 jets, ≥ 3 b tags) Pre-fit expectation

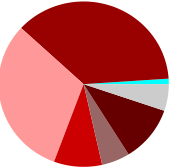
$t\bar{t}+lf$ node

S/B = 0.0077, S/ \sqrt{B} = 0.71



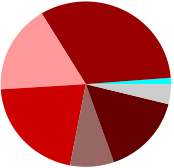
$t\bar{t}+c\bar{c}$ node

S/B = 0.0108, S/ \sqrt{B} = 0.58



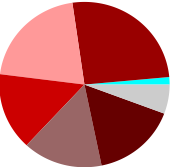
$t\bar{t}+b$ node

S/B = 0.0125, S/ \sqrt{B} = 0.54



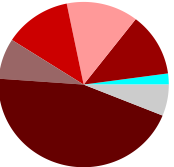
$t\bar{t}+2b$ node

S/B = 0.0148, S/ \sqrt{B} = 0.79



$t\bar{t}+bb$ node

S/B = 0.0221, S/ \sqrt{B} = 0.95



$t\bar{t}H$ node

S/B = 0.0589, S/ \sqrt{B} = 2.86

