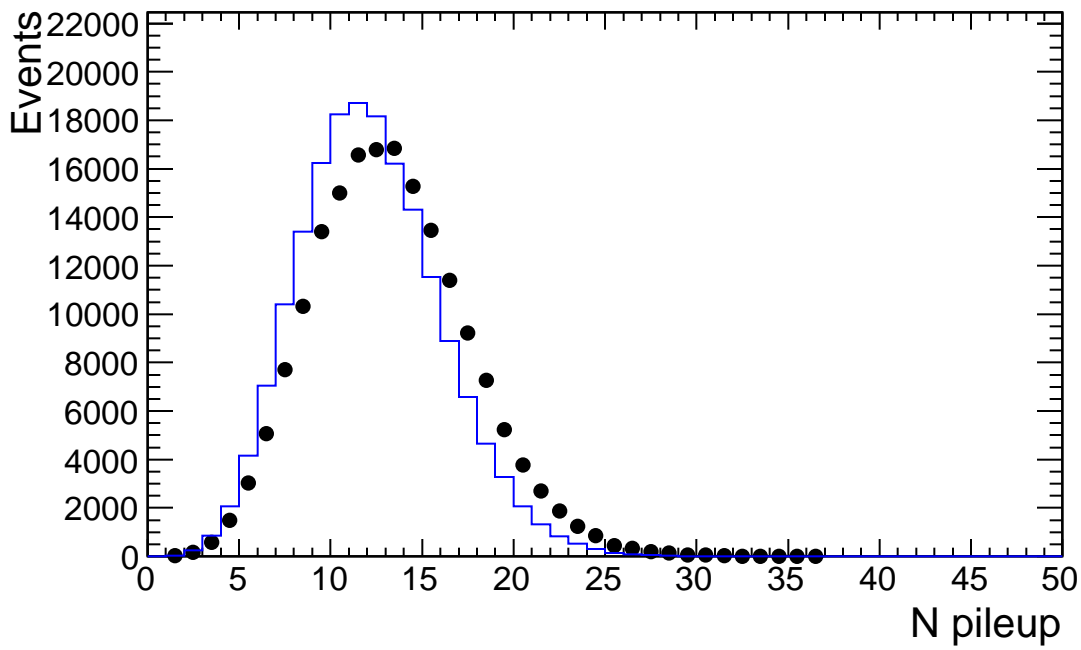
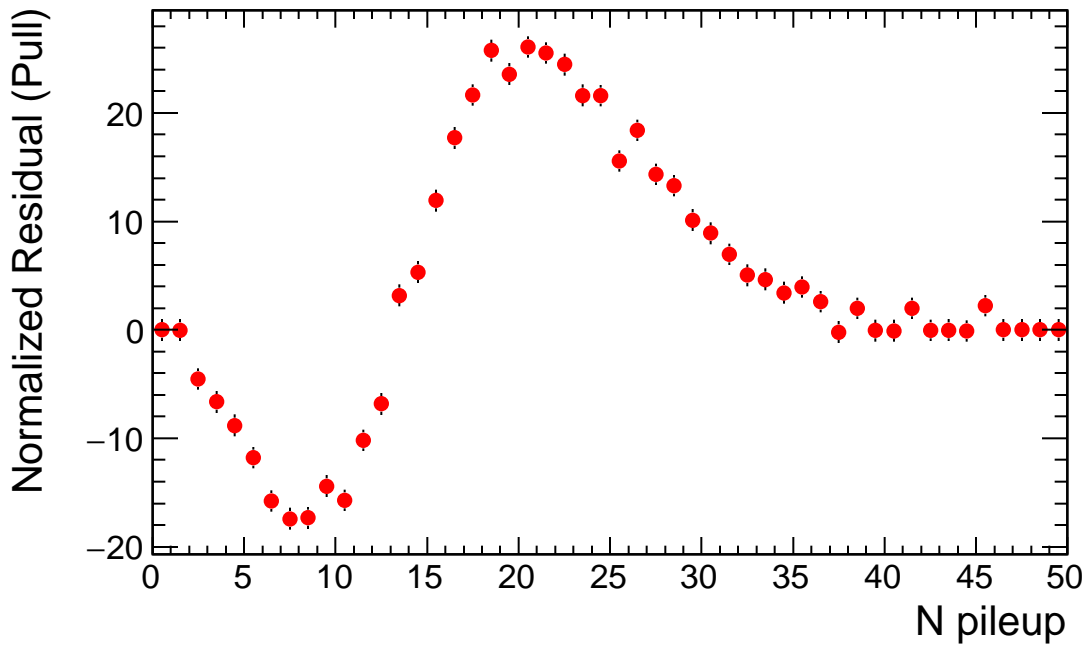


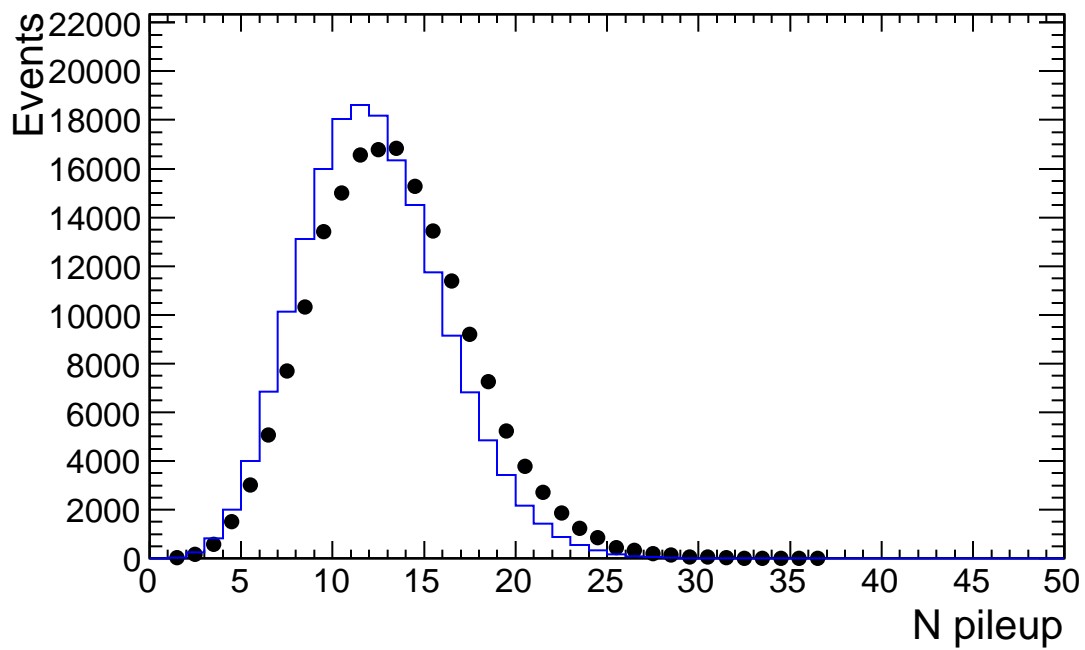
nVert: MB xsec=57500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



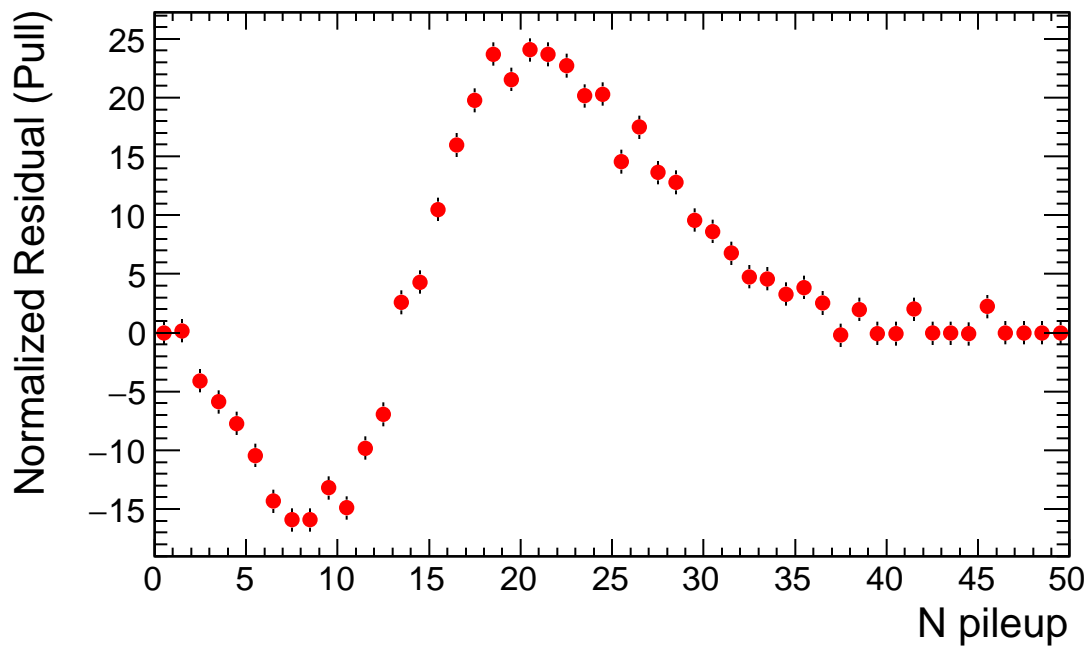
Normalized Residual (Pull): MB xsec=57500 ub, Chi2/Ndf=315.797480401, P-value=0.0



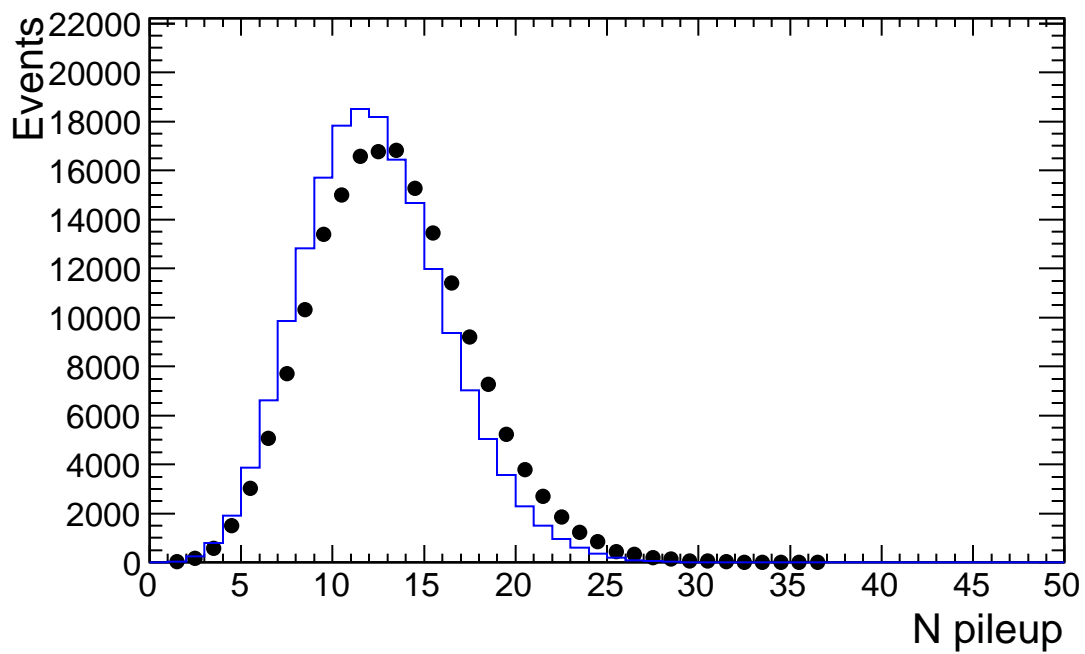
nVert: MB xsec=58000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



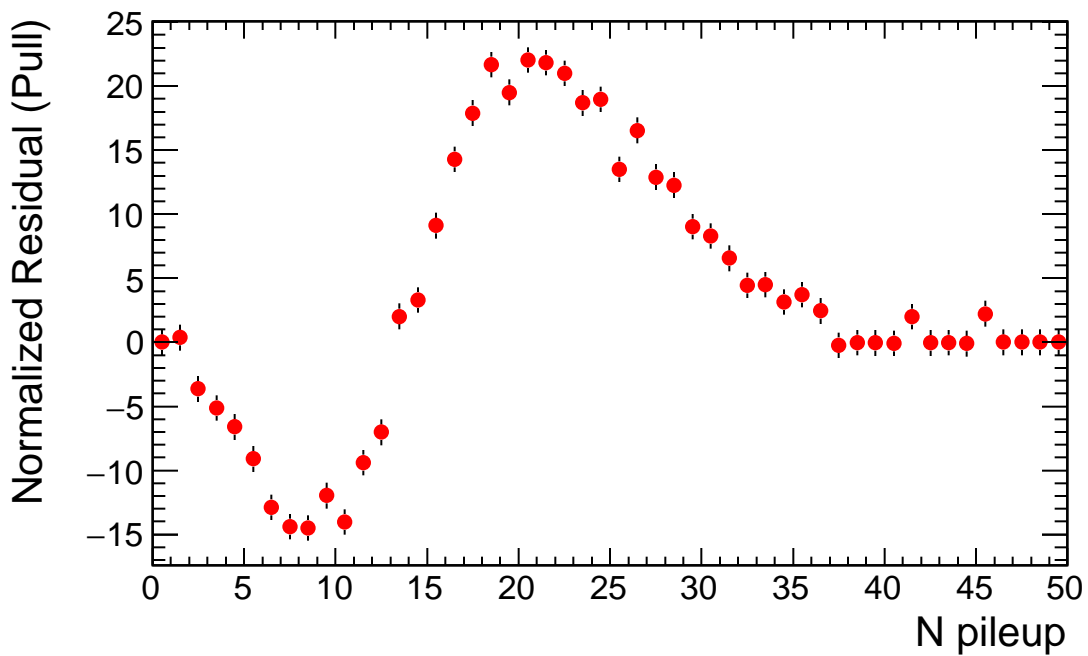
Normalized Residual (Pull): MB xsec=58000 ub, Chi2/Ndf=285.76760383, P-value=0.0



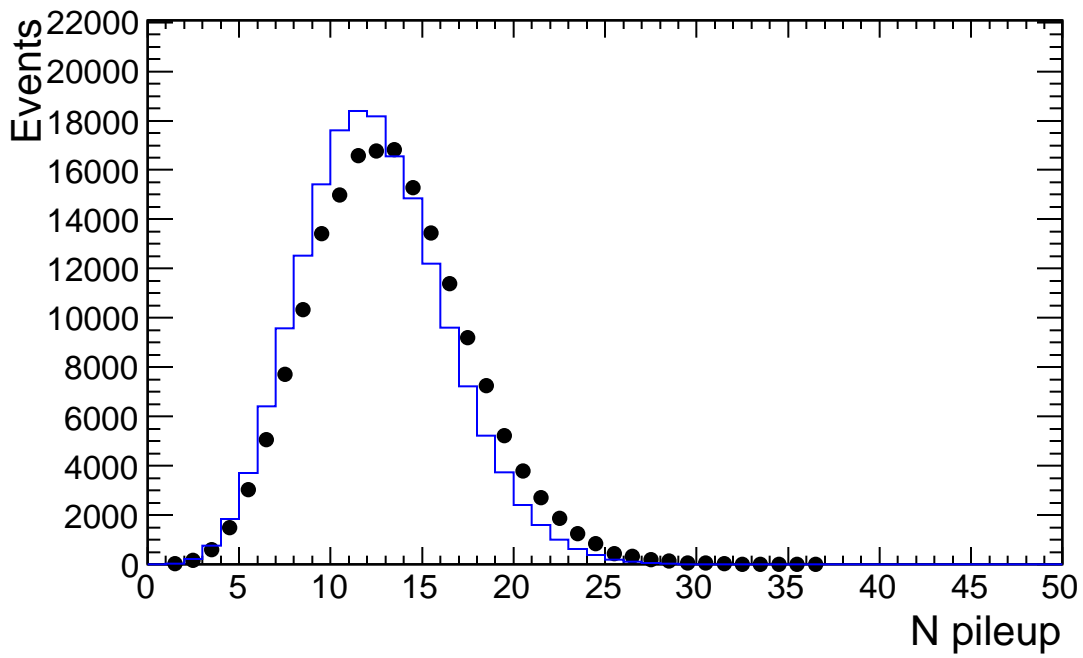
nVert: MB xsec=58500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



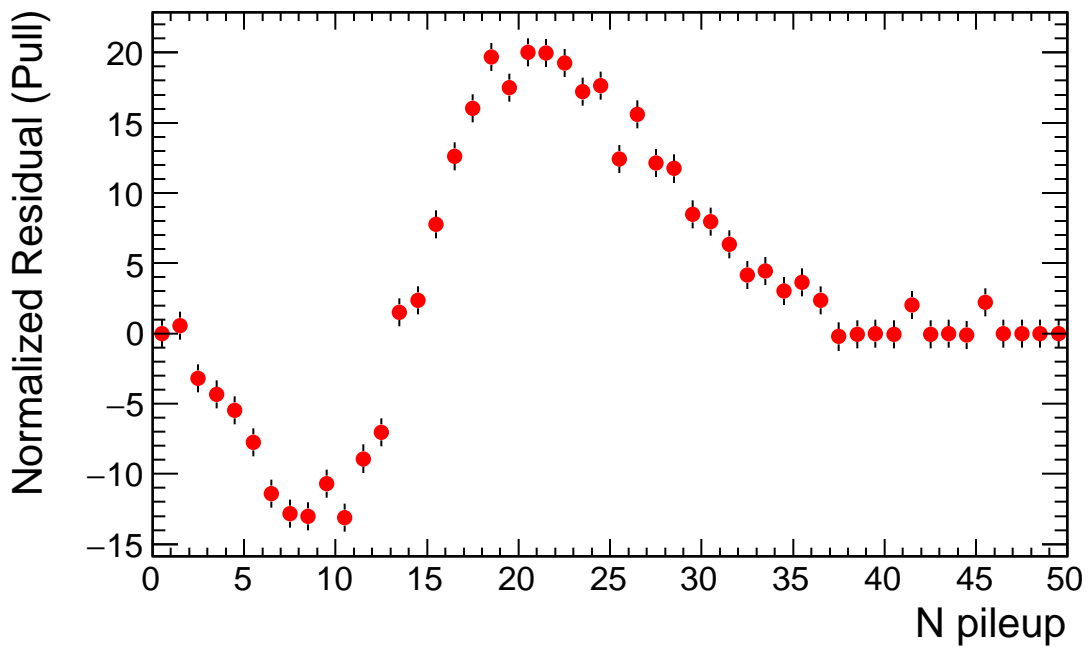
Normalized Residual (Pull): MB xsec=58500 ub, Chi2/Ndf=256.226576608, P-value=0.0



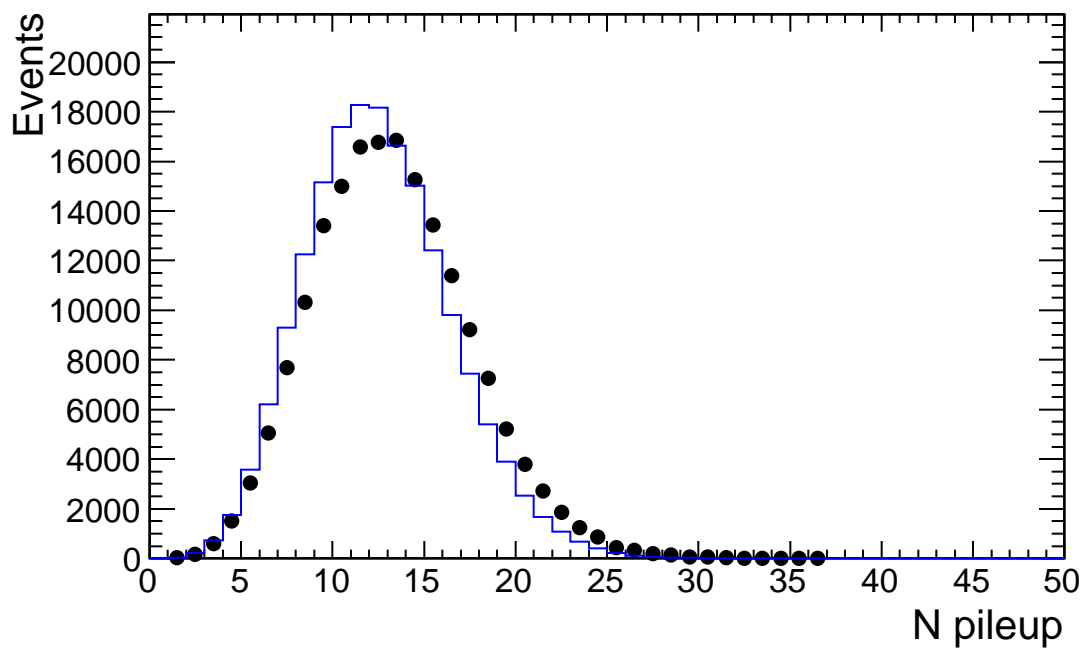
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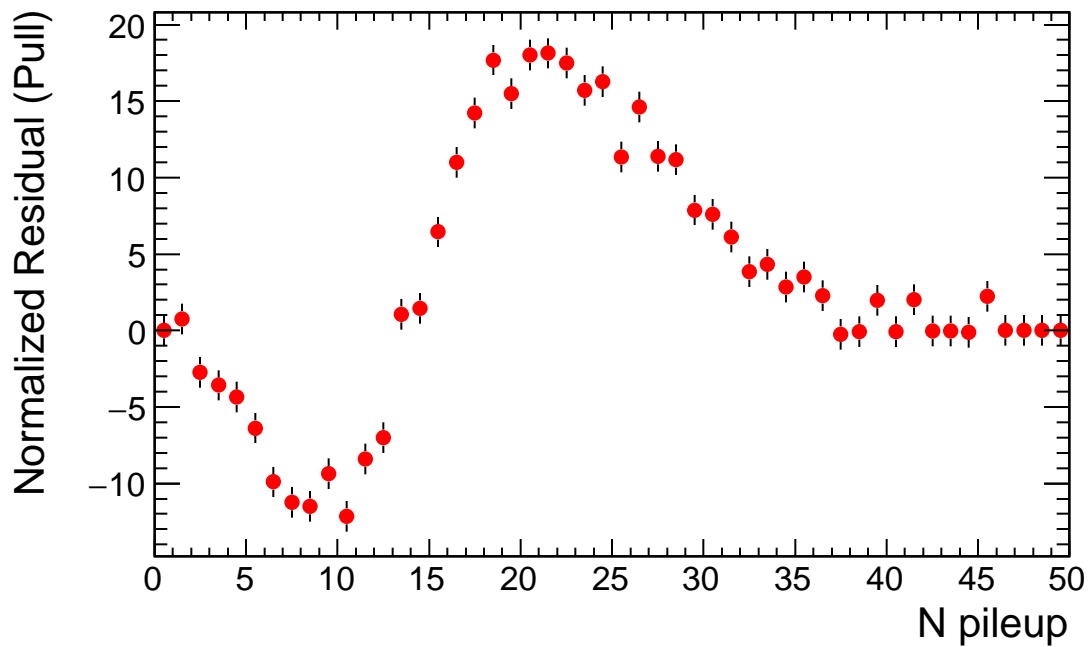
Normalized Residual (Pull): MB xsec=59000 ub, Chi2/Ndf=230.852422873, P-value=0.0



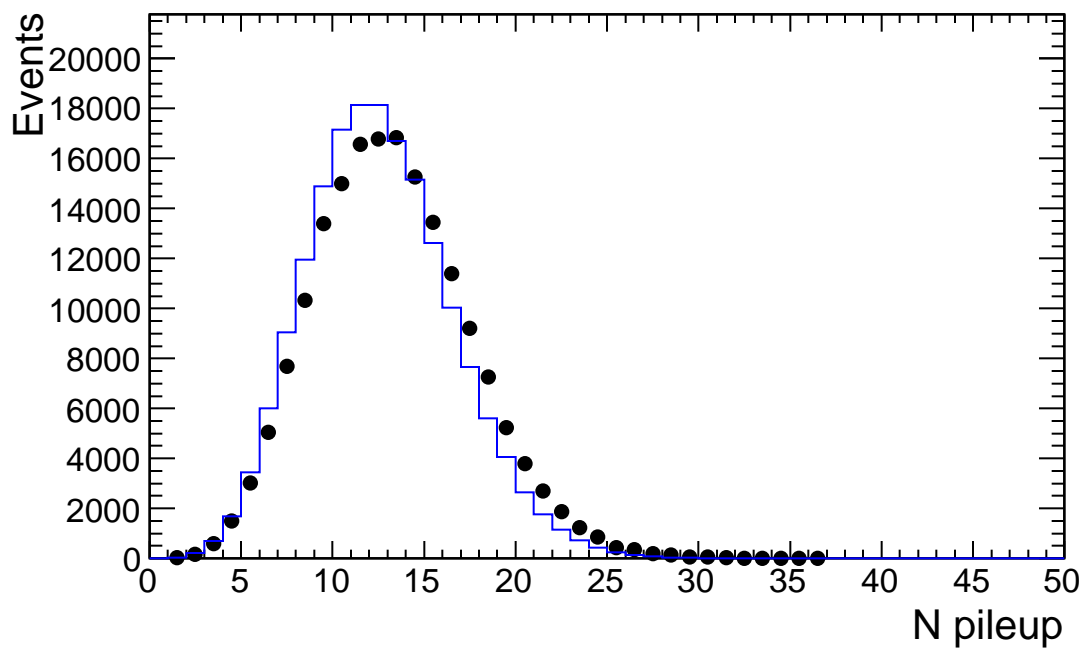
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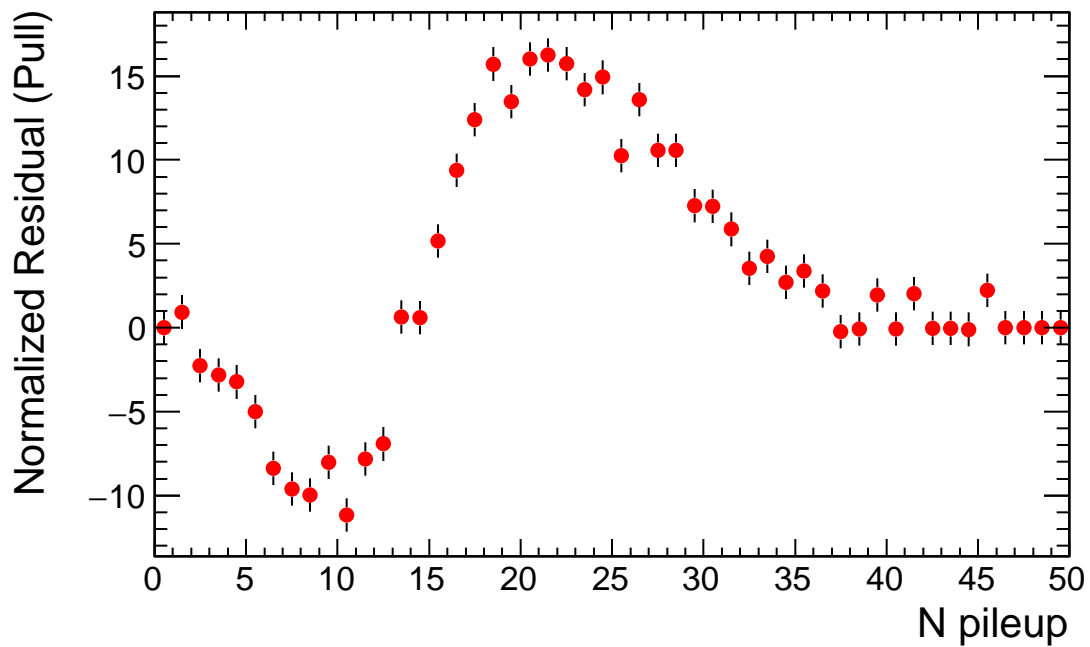
Normalized Residual (Pull): MB xsec=59500 ub, Chi2/Ndf=209.300975645, P-value=0.0



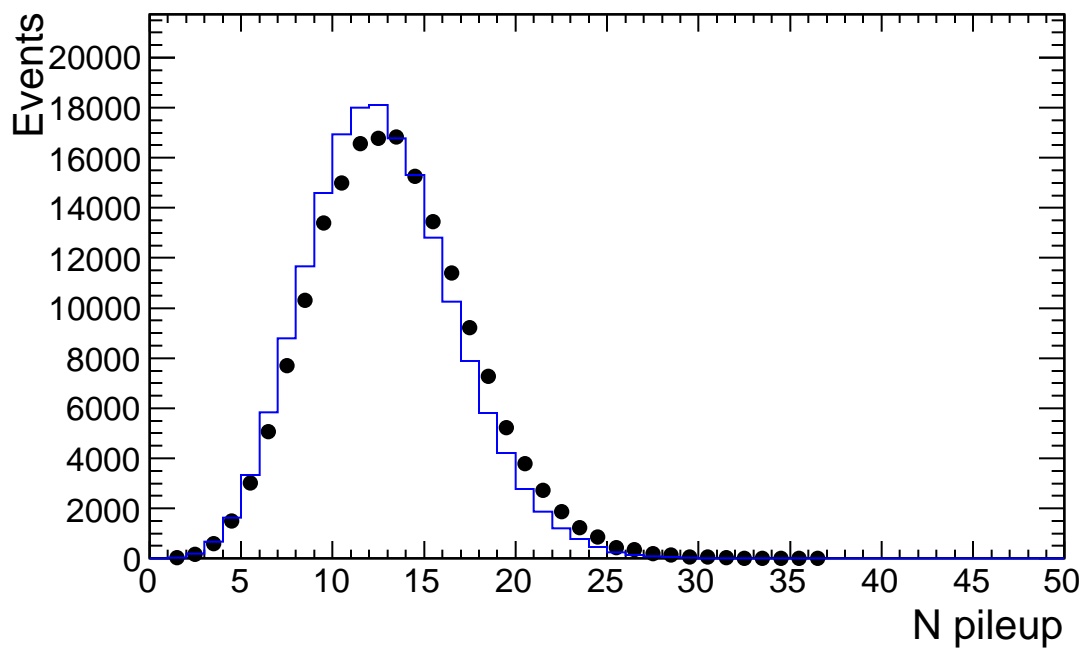
nVert: MB xsec=60000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



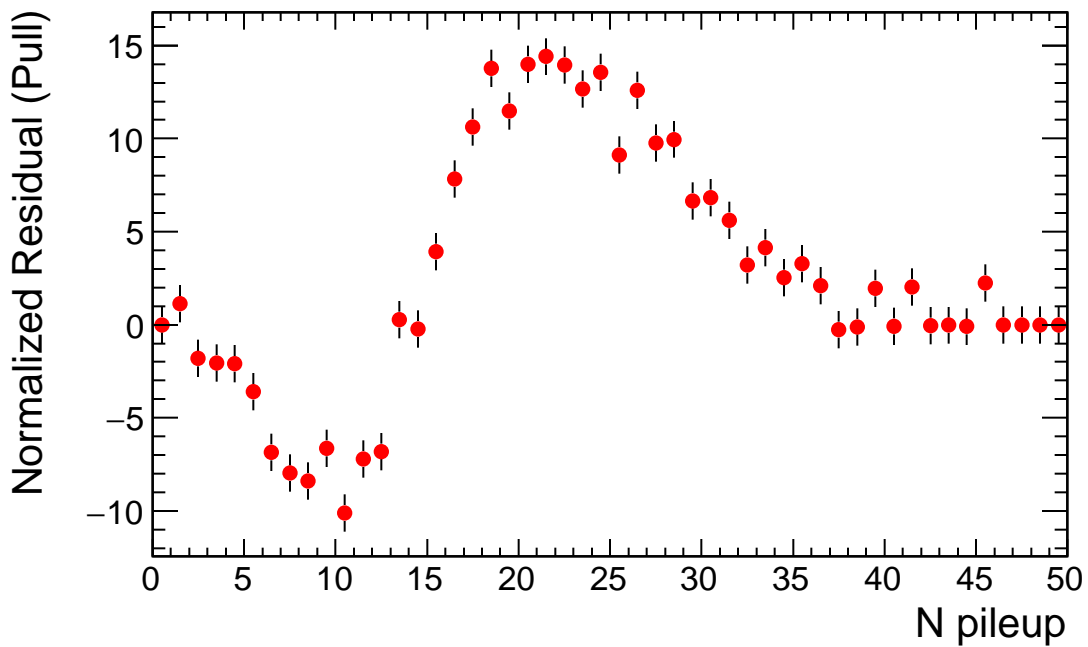
Normalized Residual (Pull): MB xsec=60000 ub, Chi2/Ndf=188.41647739, P-value=0.0



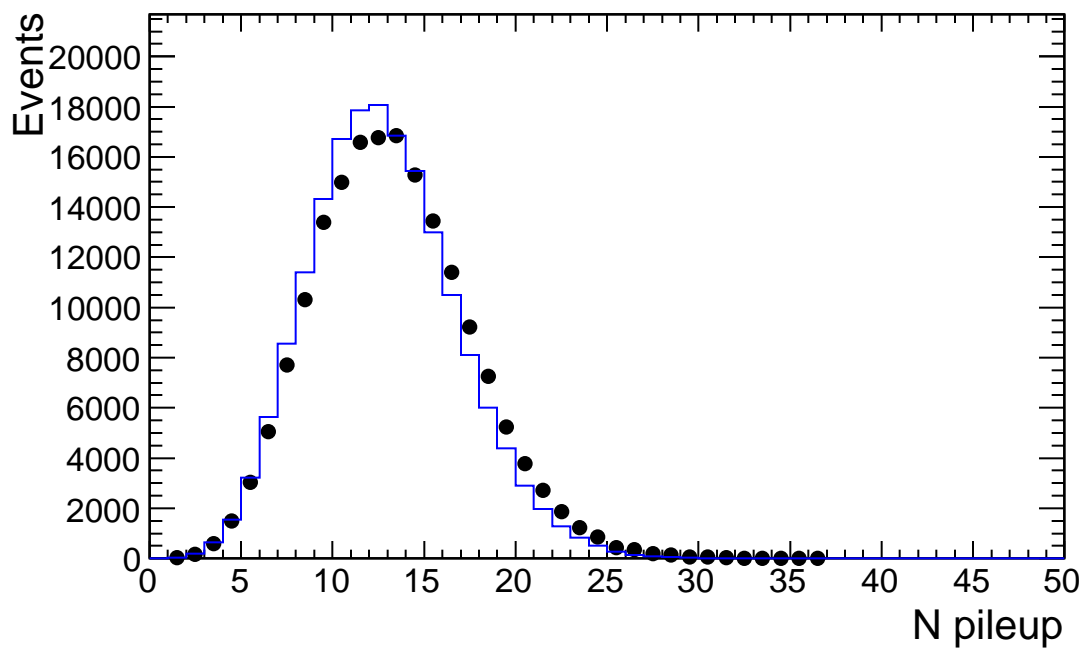
nVert: MB xsec=60500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



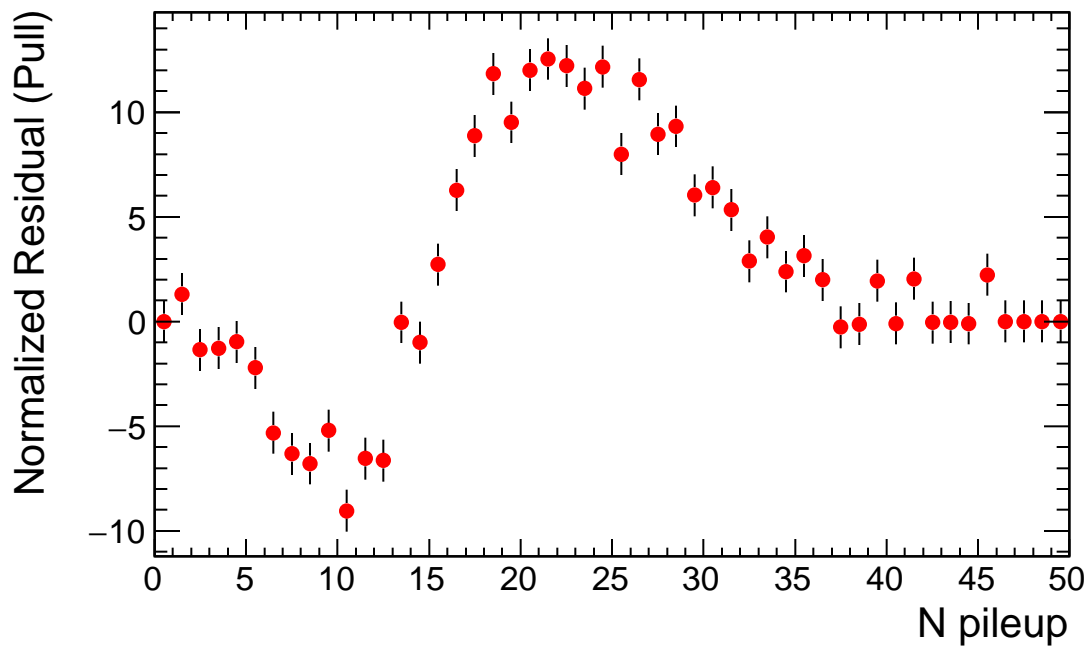
Normalized Residual (Pull): MB xsec=60500 ub, Chi2/Ndf=169.902159756, P-value=0.0



nVert: MB xsec=61000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>

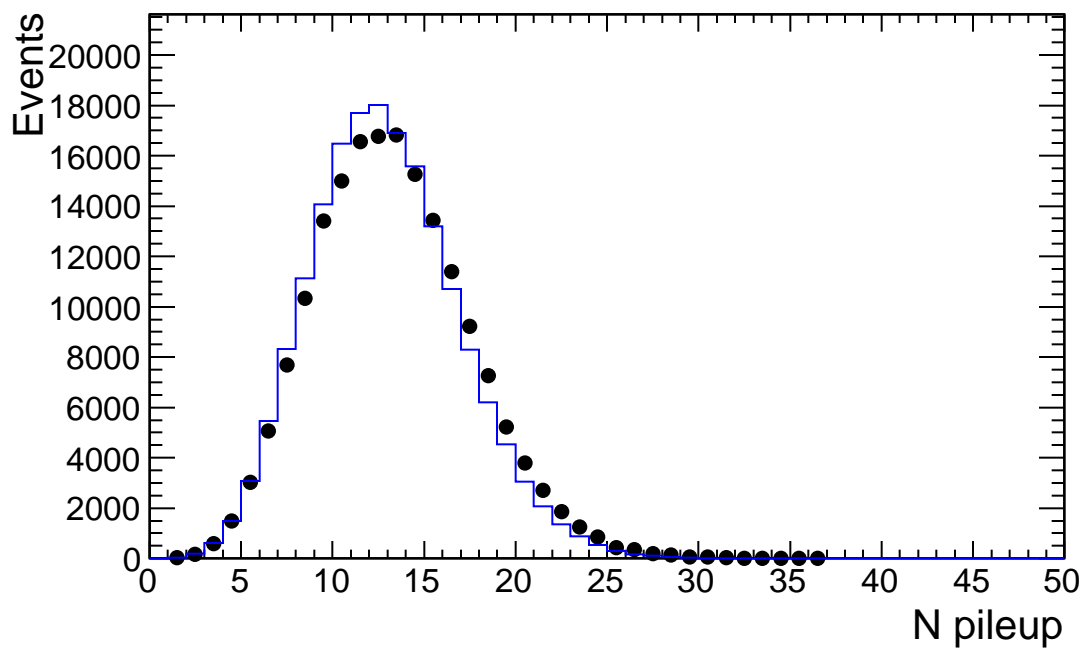


Normalized Residual (Pull): MB xsec=61000 ub, Chi2/Ndf=153.745519482, P-value=0.0

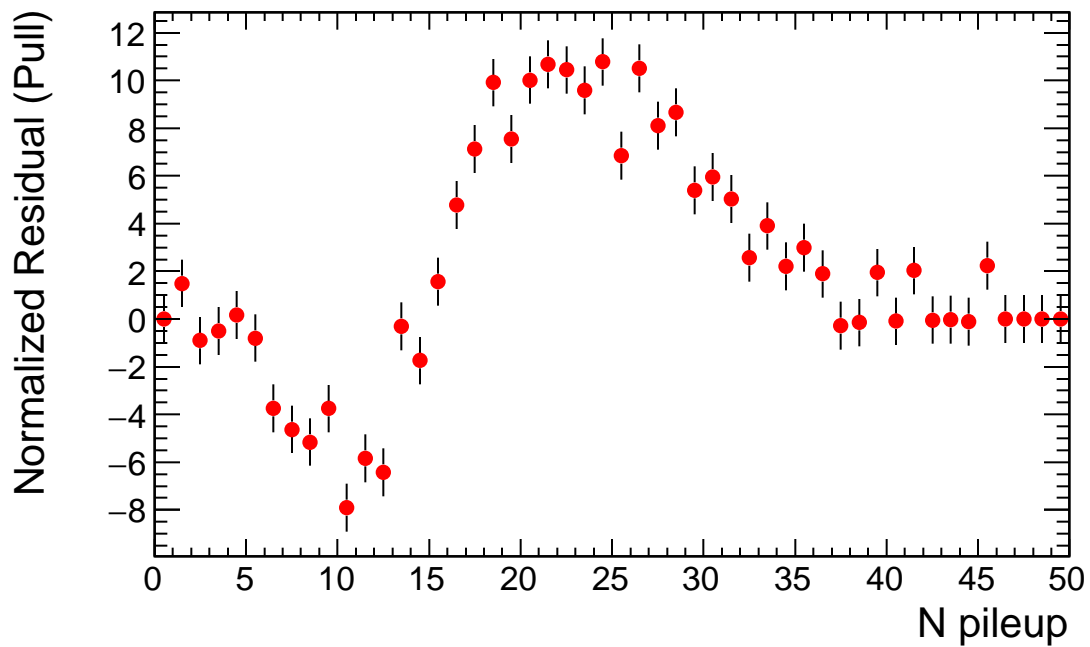




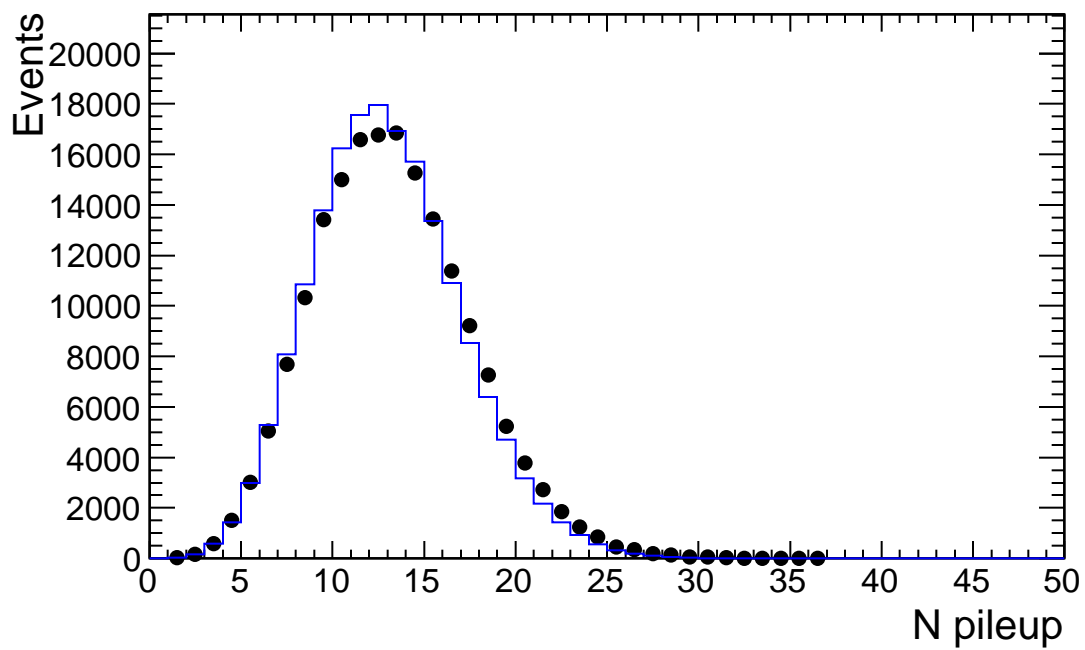
nVert: MB xsec=61500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



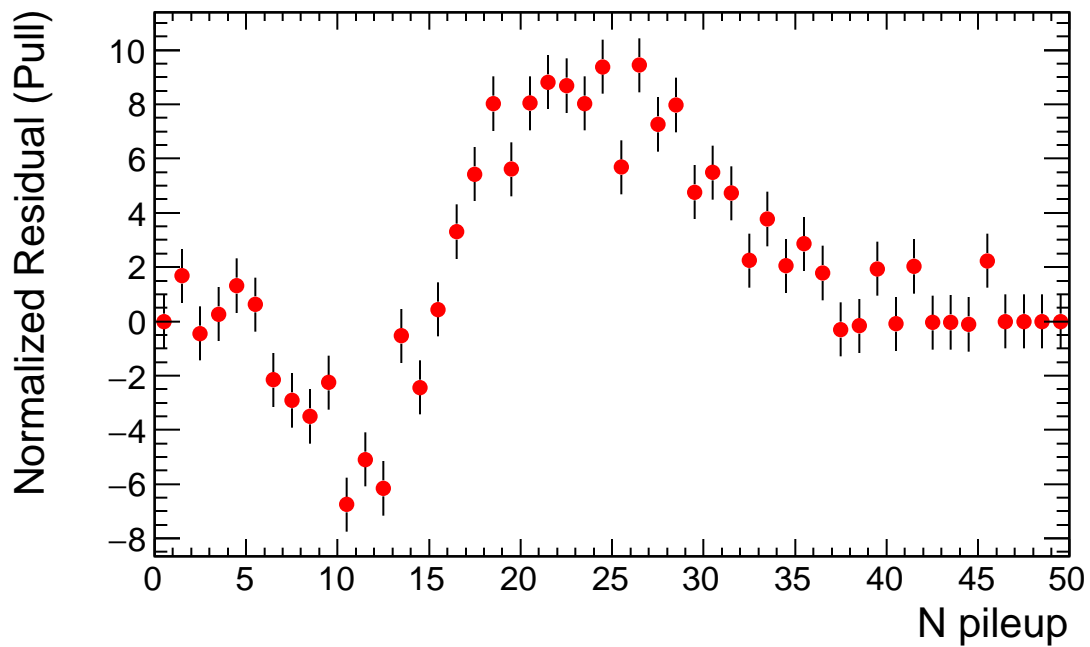
Normalized Residual (Pull): MB xsec=61500 ub, Chi2/Ndf=139.914377792, P-value=0.0



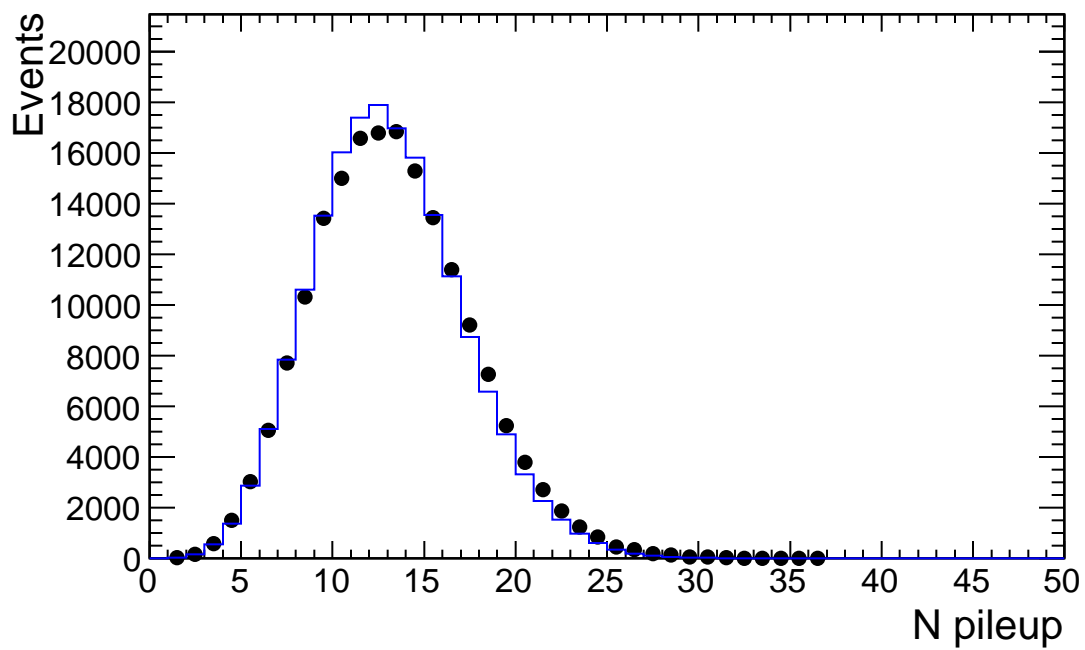
nVert: MB xsec=62000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



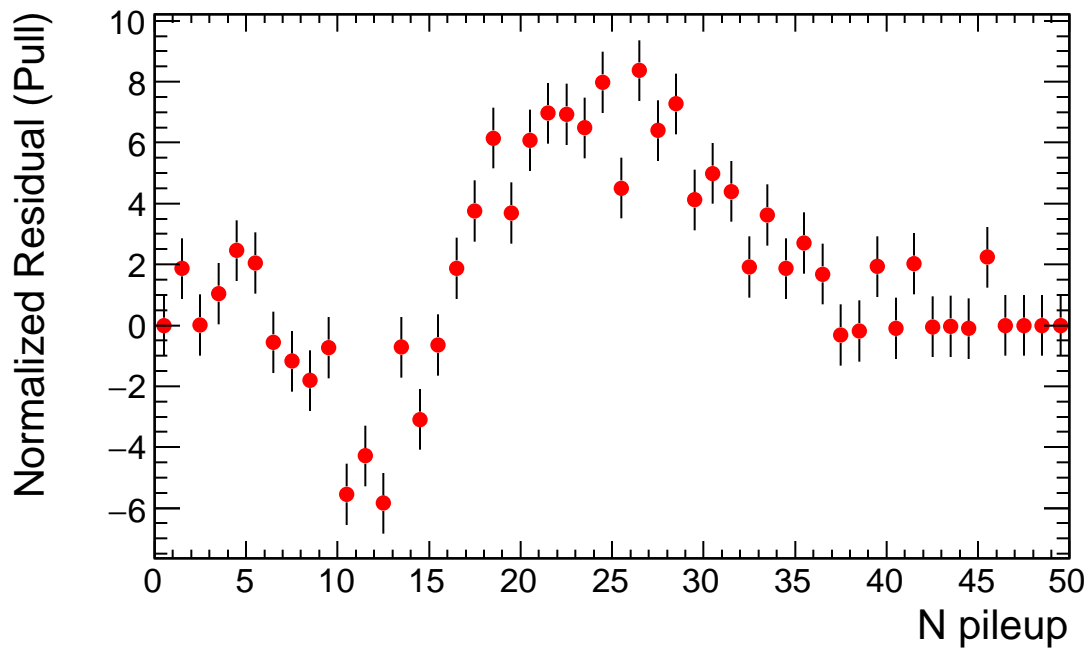
Normalized Residual (Pull): MB xsec=62000 ub, Chi2/Ndf=128.363319298, P-value=0.0



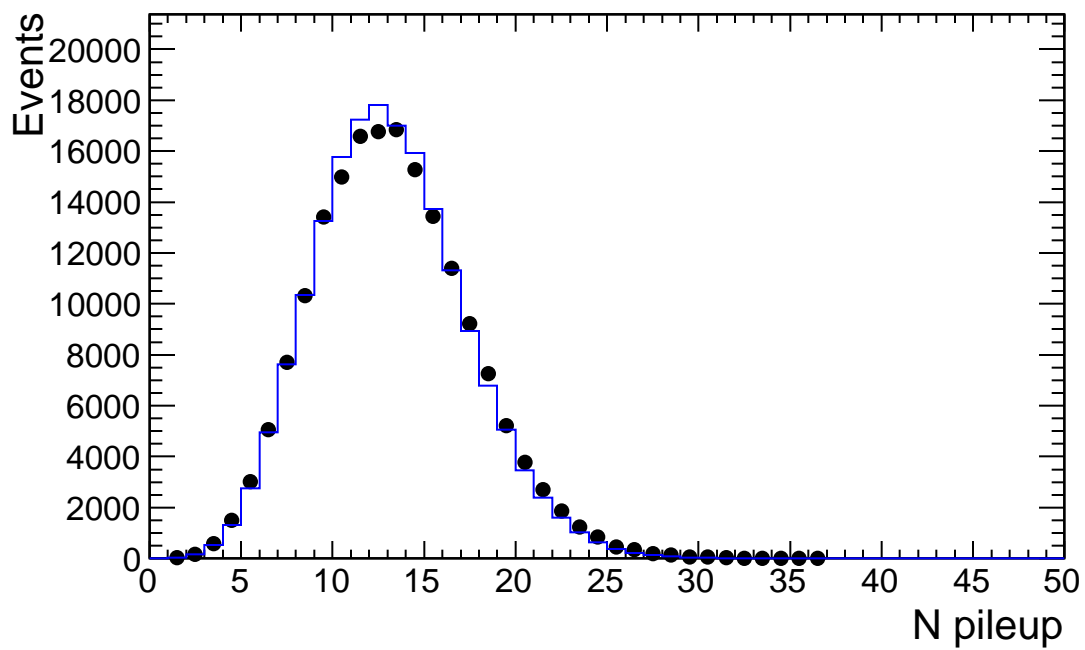
nVert: MB xsec=62500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



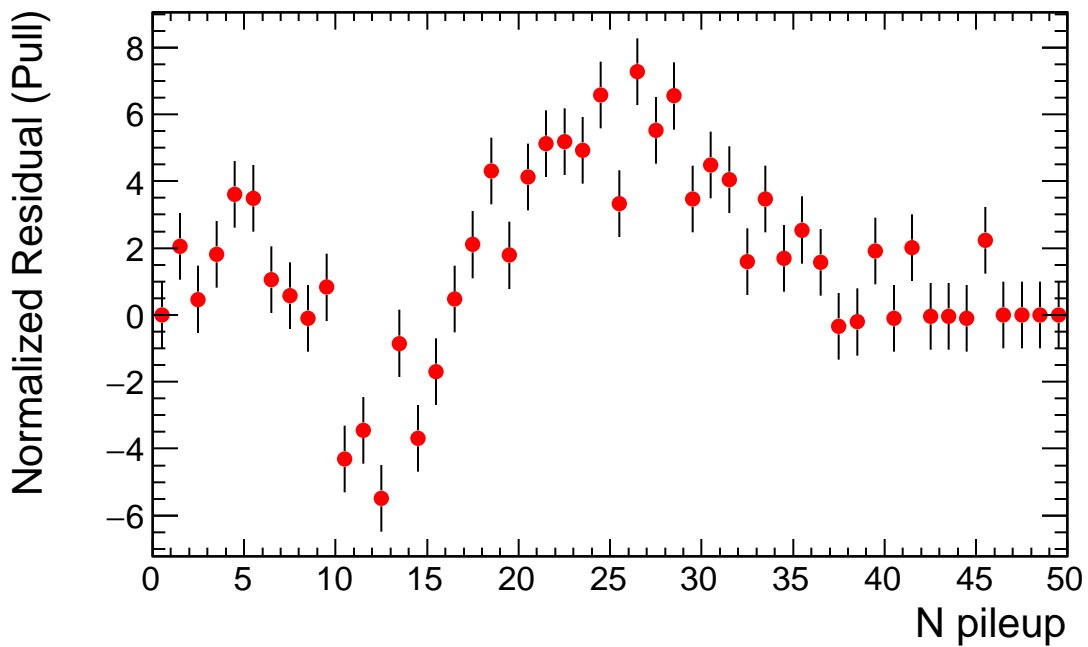
Normalized Residual (Pull): MB xsec=62500 ub, Chi2/Ndf=119.037709006, P-value=0.0



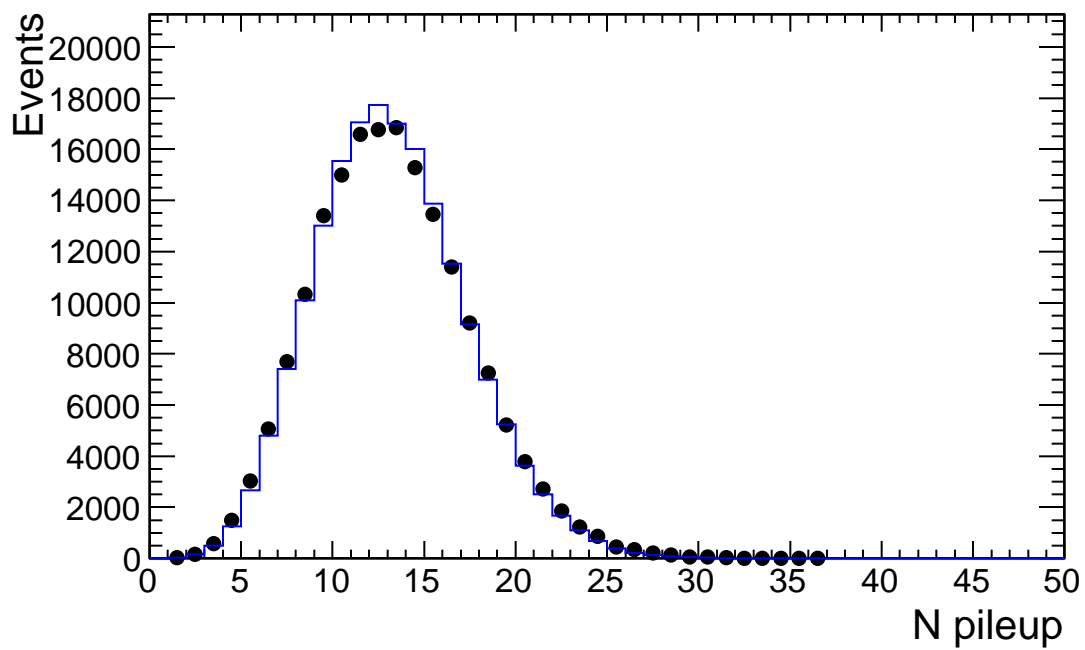
nVert: MB xsec=63000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



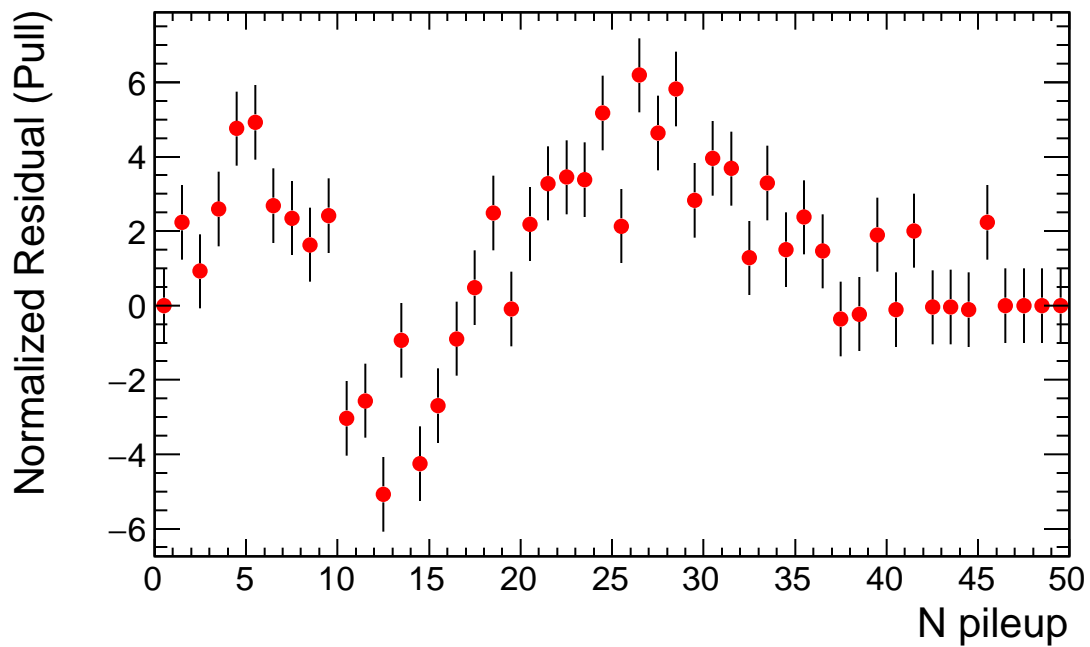
Normalized Residual (Pull): MB xsec=63000 ub, Chi2/Ndf=111.875523652, P-value=0.0



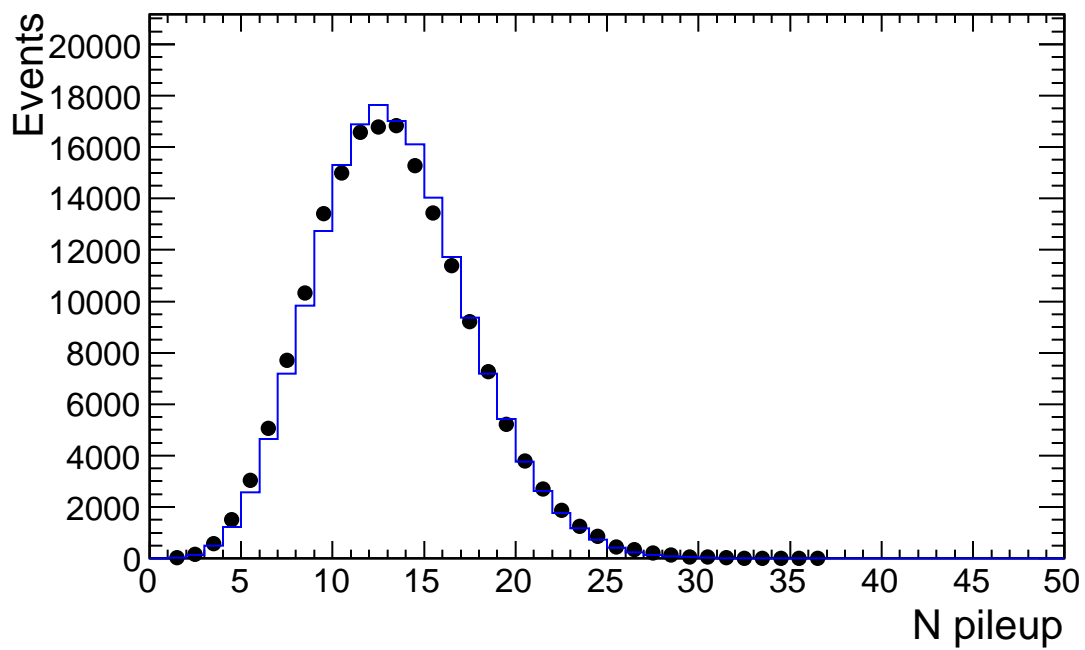
nVert: MB xsec=63500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



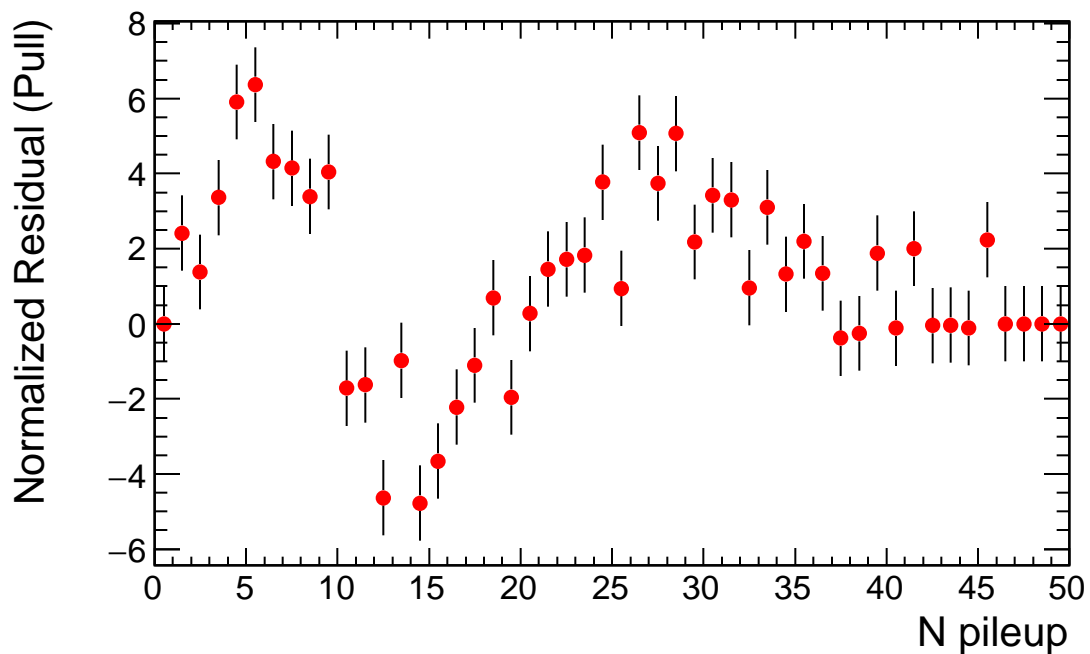
Normalized Residual (Pull): MB xsec=63500 ub, Chi2/Ndf=106.807908767, P-value=0.0



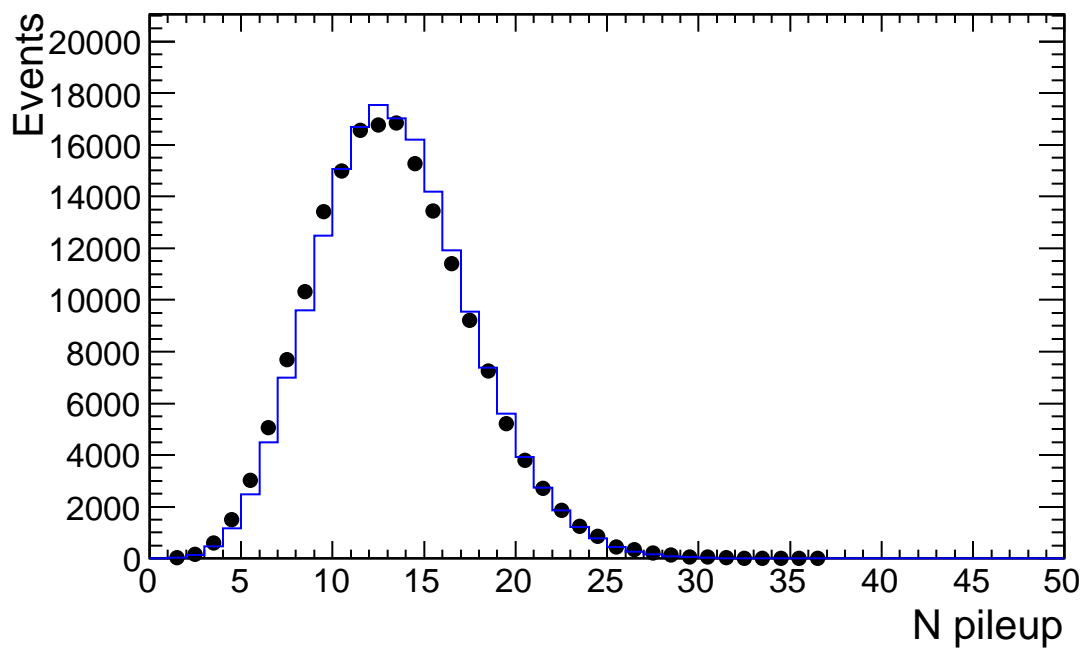
nVert: MB xsec=64000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



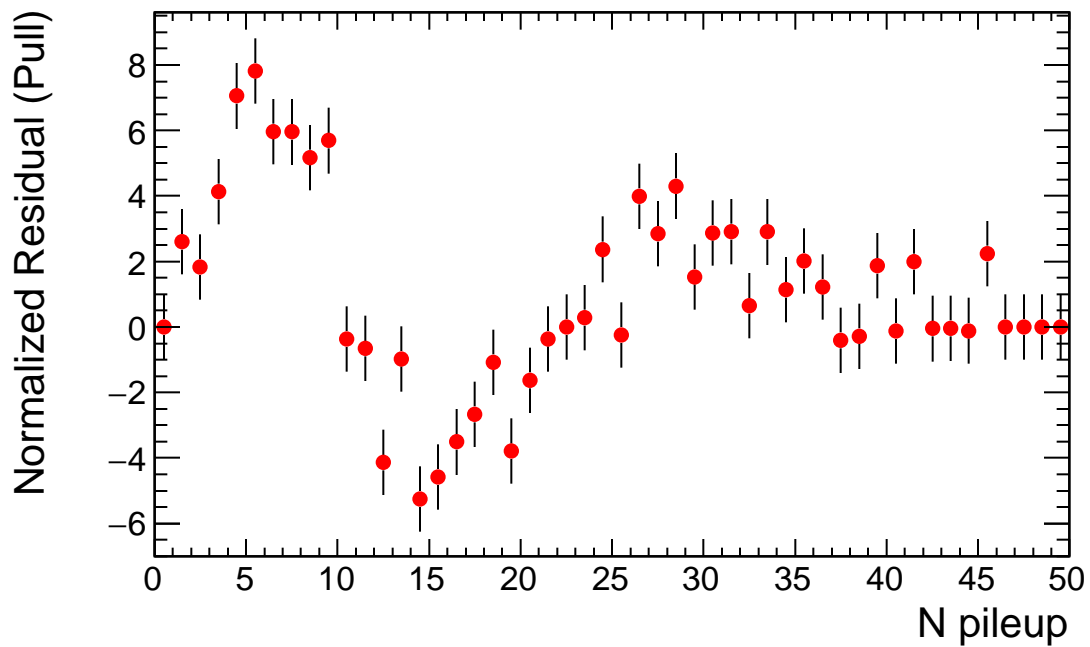
Normalized Residual (Pull): MB xsec=64000 ub, Chi2/Ndf=103.759562472, P-value=0.0



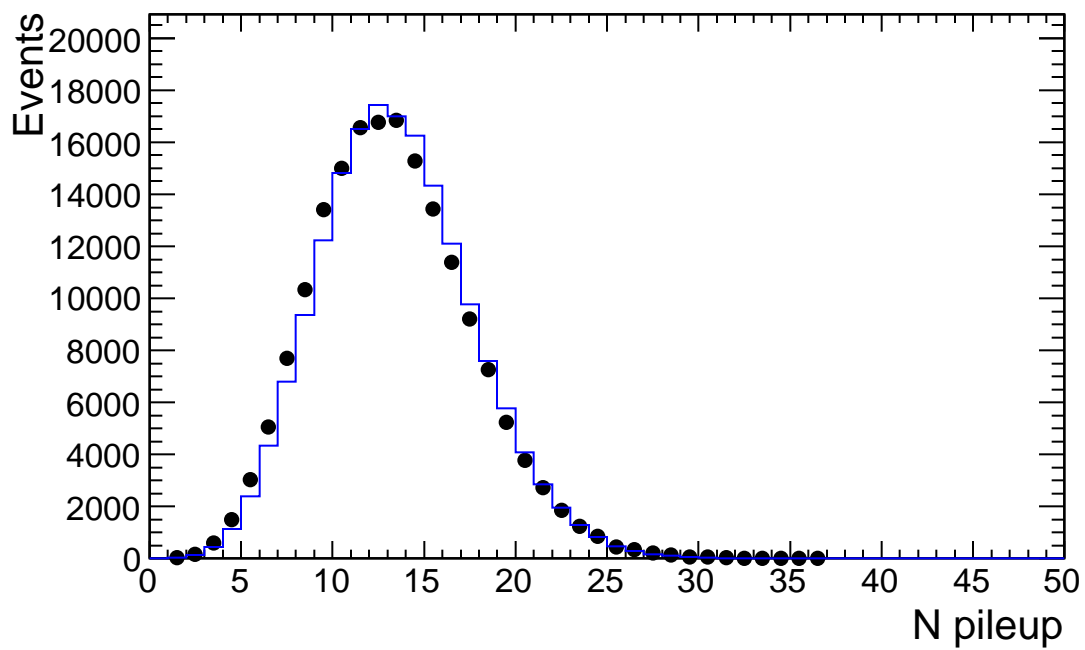
nVert: MB xsec=64500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



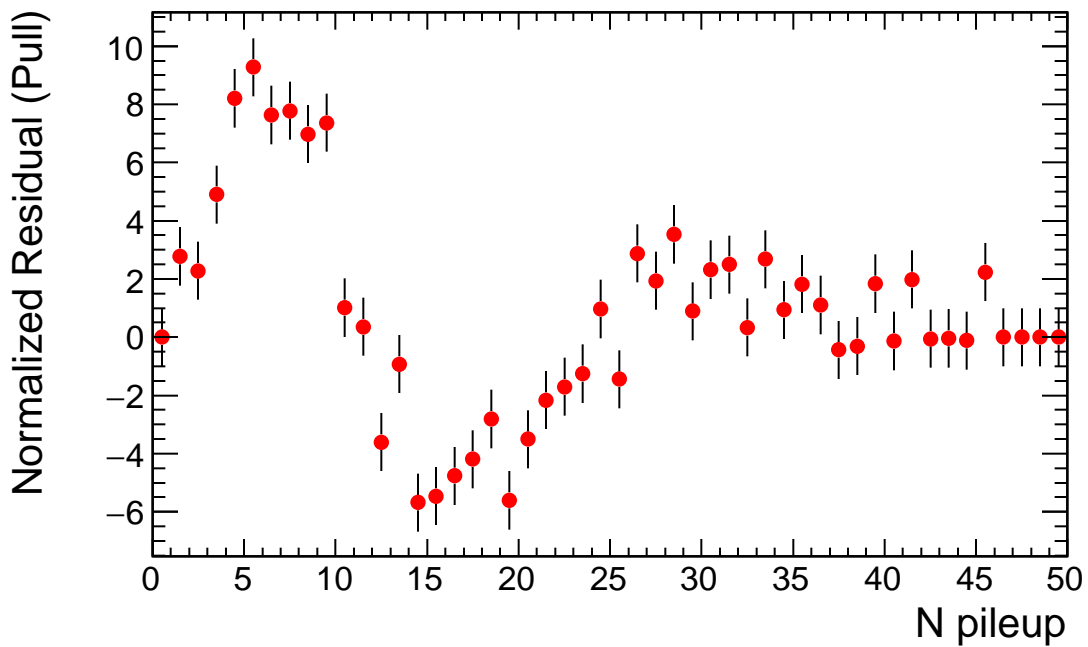
Normalized Residual (Pull): MB xsec=64500 ub, Chi2/Ndf=102.65006386, P-value=0.0



nVert: MB xsec=65000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>

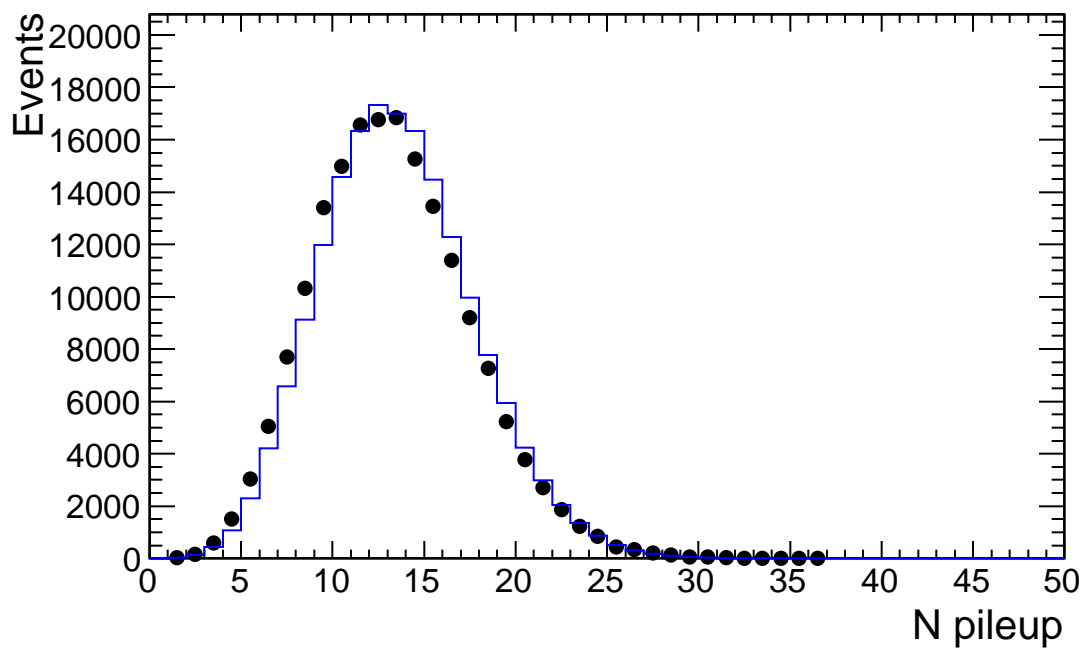


Normalized Residual (Pull): MB xsec=65000 ub, Chi2/Ndf=103.397231414, P-value=0.0

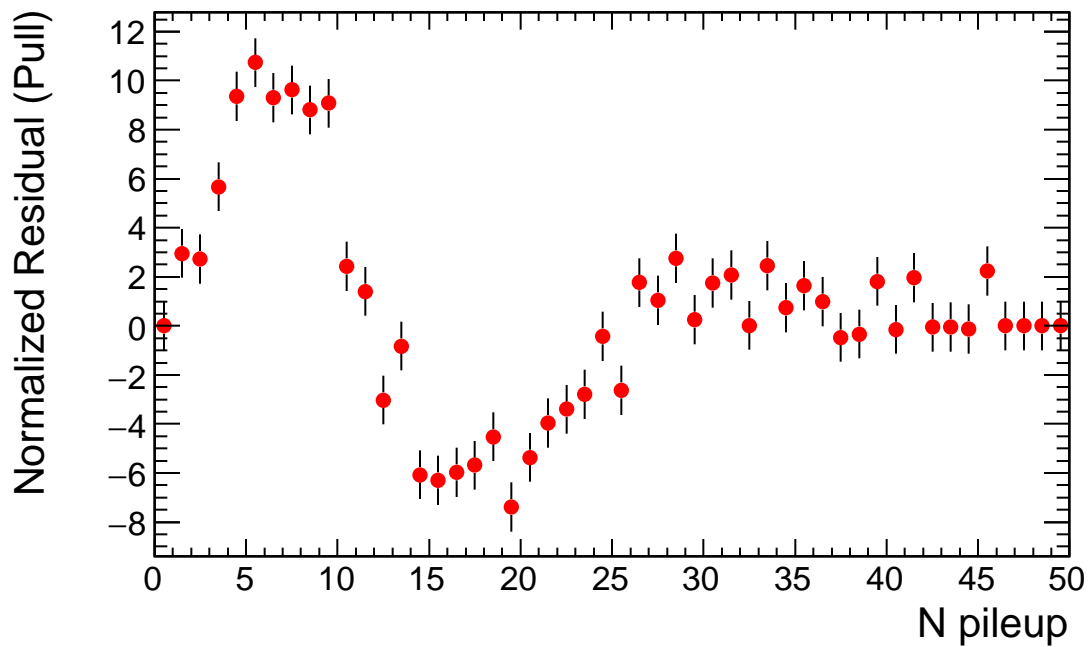




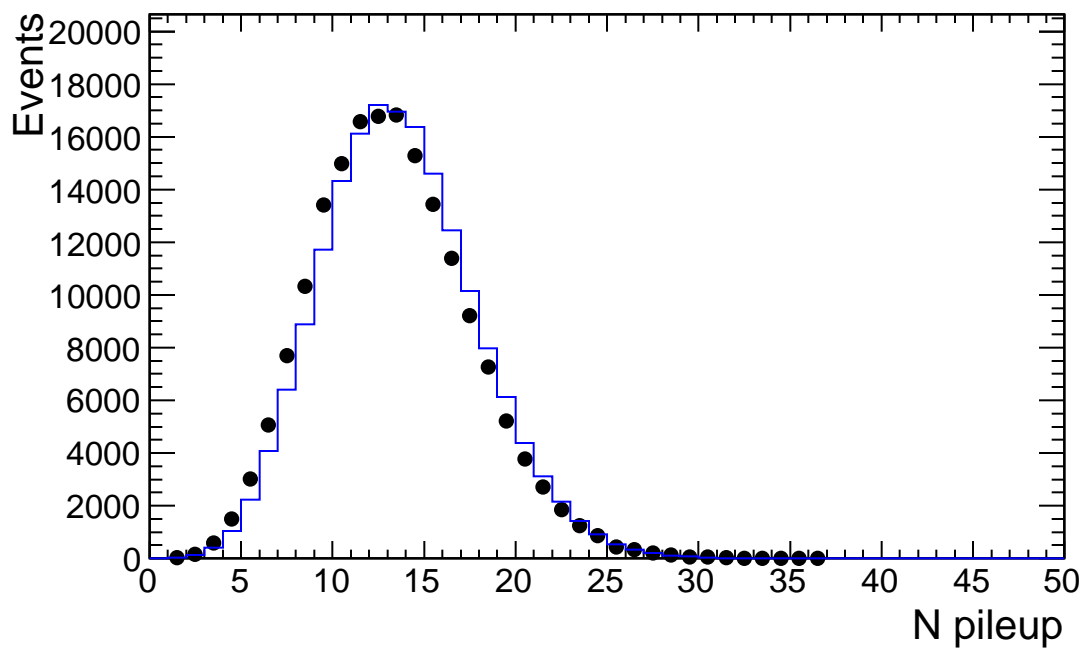
nVert: MB xsec=65500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



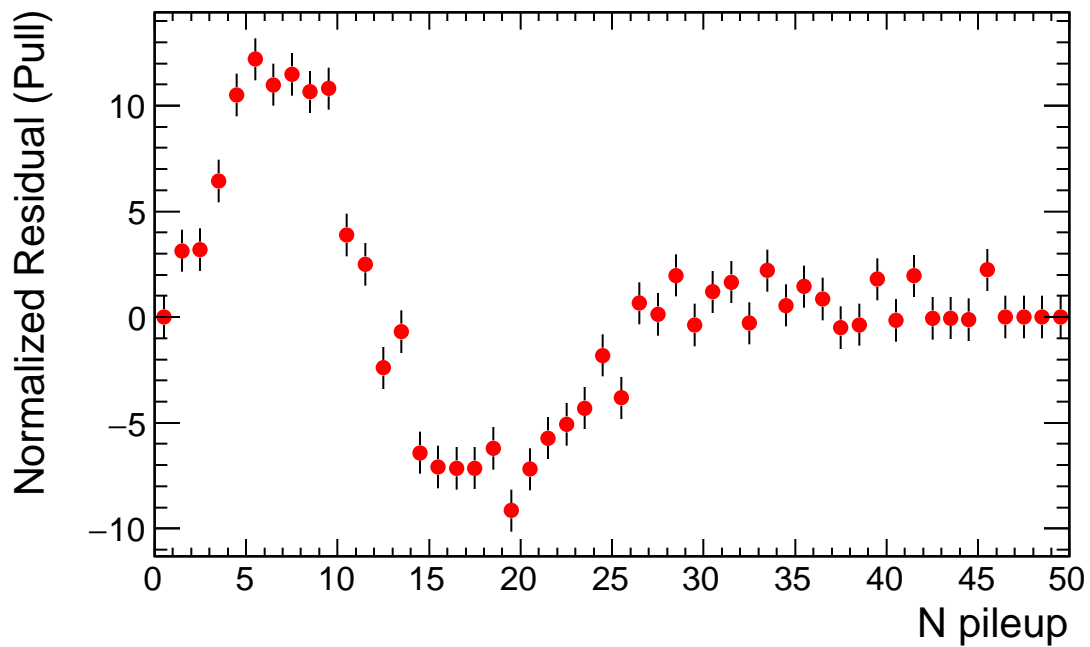
Normalized Residual (Pull): MB xsec=65500 ub, Chi2/Ndf=105.923354312, P-value=0.0



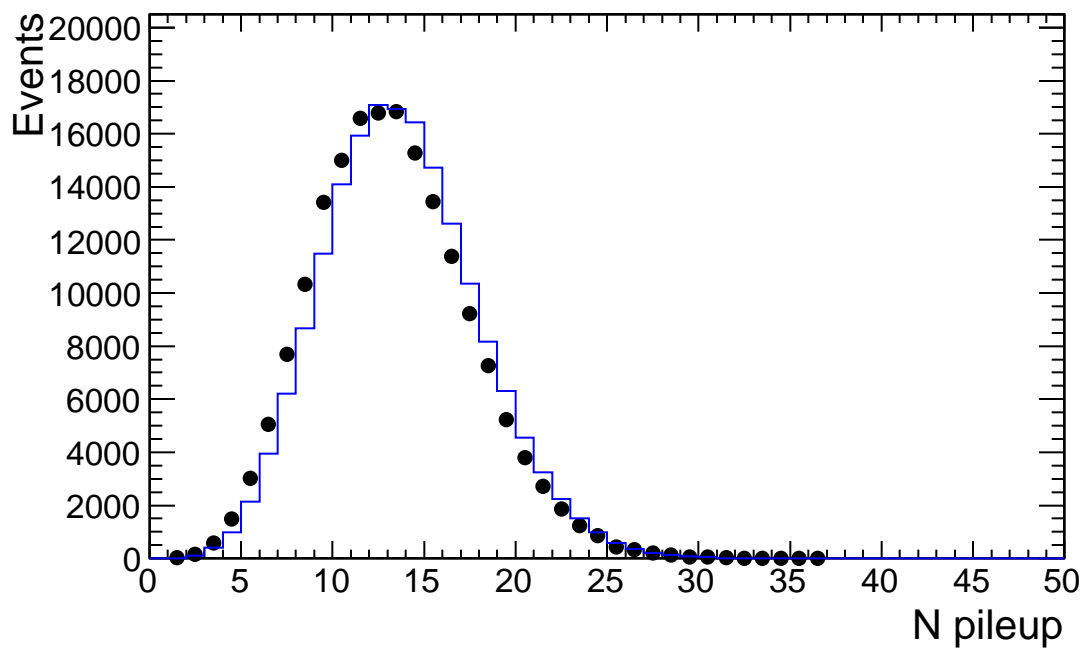
nVert: MB xsec=66000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



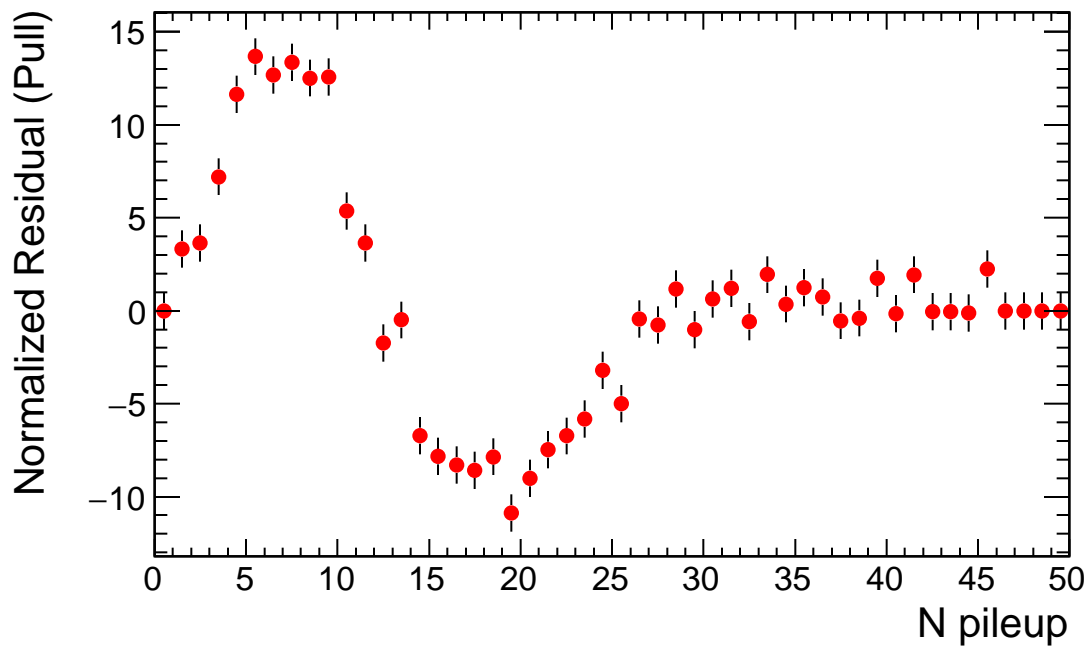
Normalized Residual (Pull): MB xsec=66000 ub, Chi2/Ndf=110.164671922, P-value=0.0



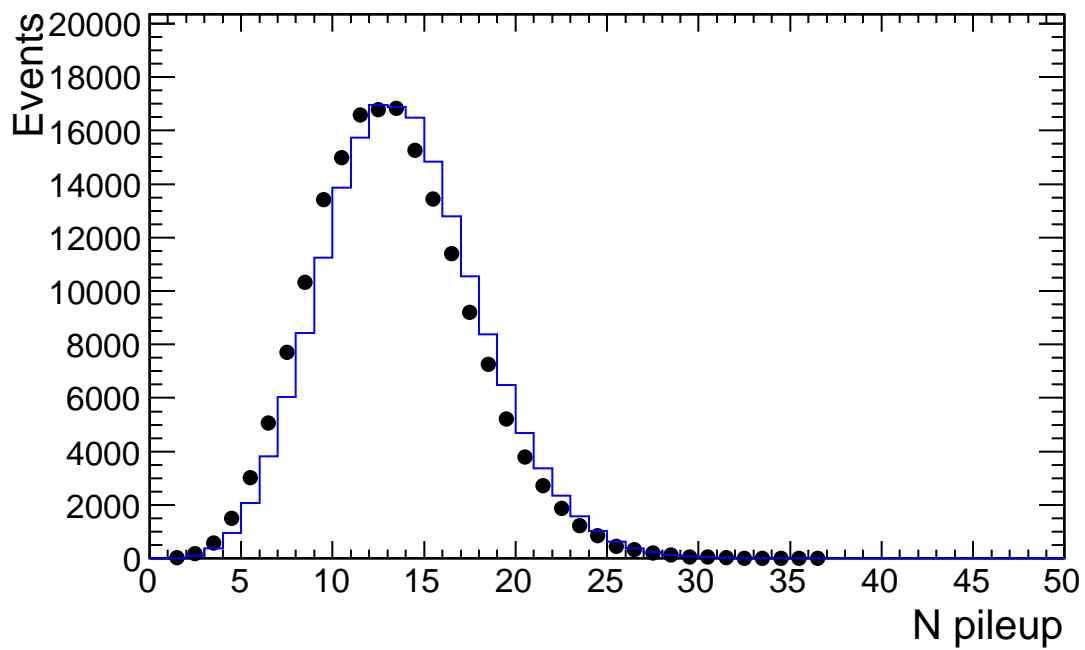
nVert: MB xsec=66500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



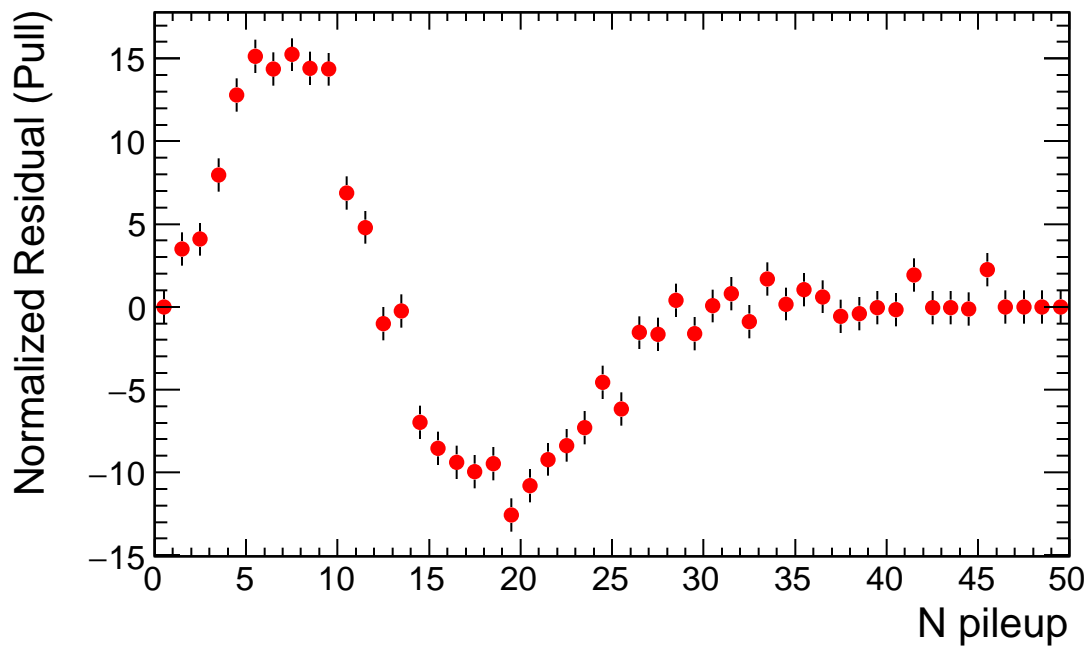
Normalized Residual (Pull): MB xsec=66500 ub, Chi2/Ndf=116.083452595, P-value=0.0



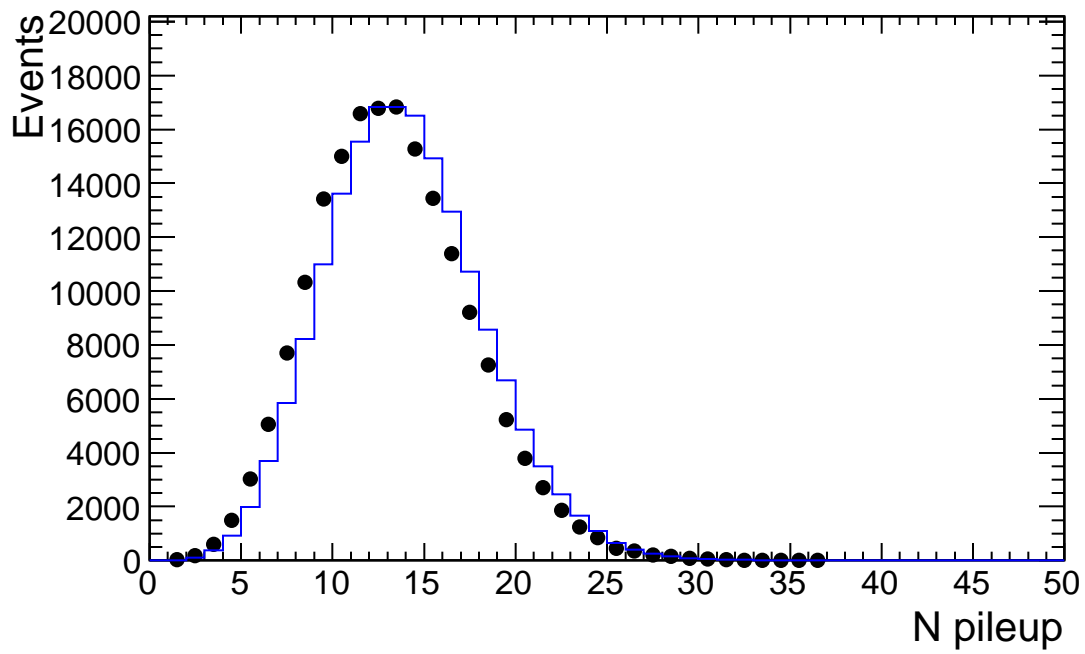
nVert: MB xsec=67000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



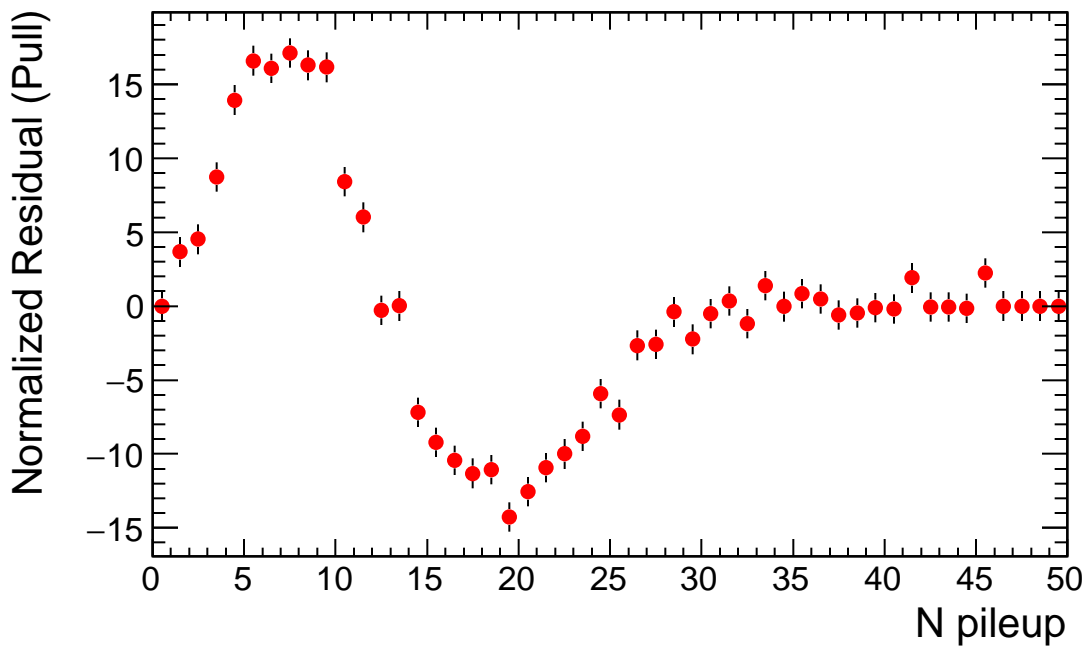
Normalized Residual (Pull): MB xsec=67000 ub, Chi2/Ndf=123.473393444, P-value=0.0



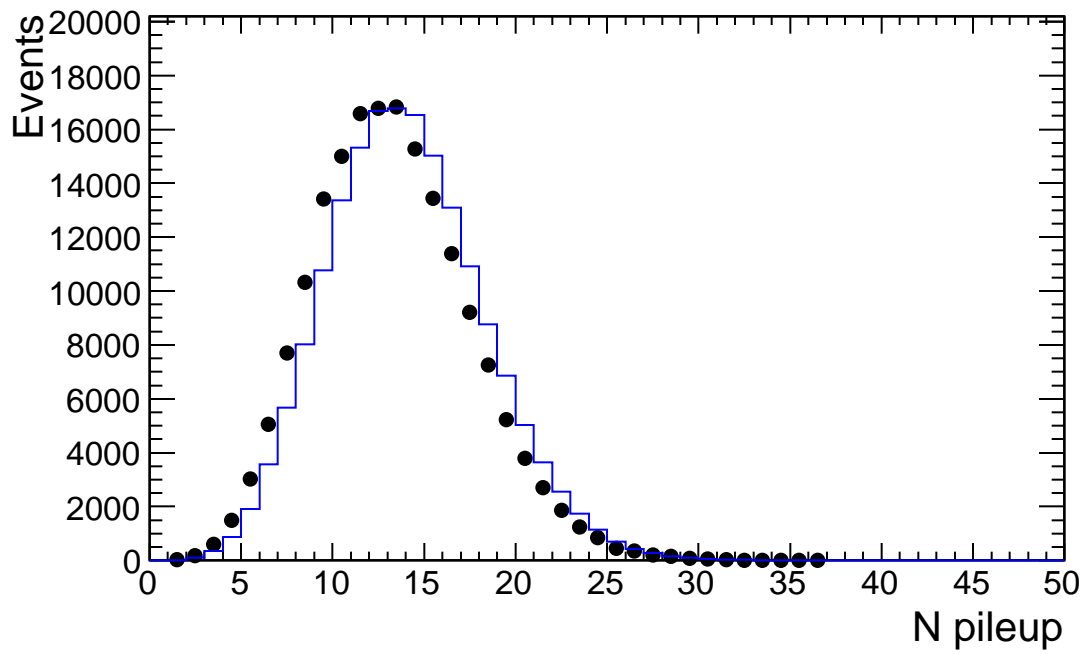
nVert: MB xsec=67500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



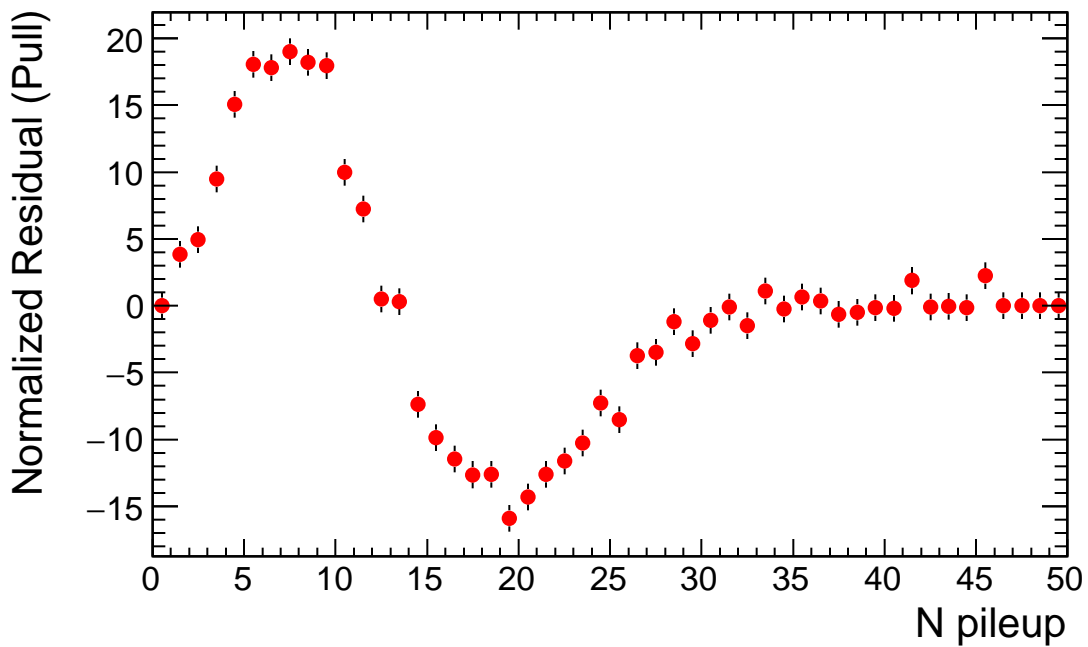
Normalized Residual (Pull): MB xsec=67500 ub, Chi2/Ndf=132.826657786, P-value=0.0



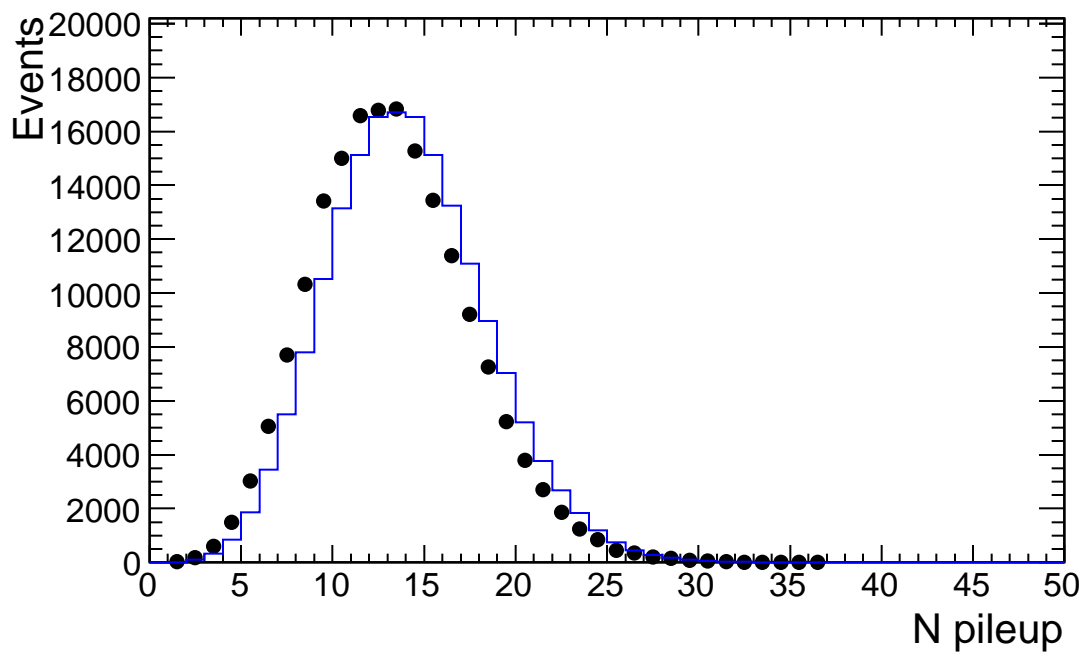
nVert: MB xsec=68000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



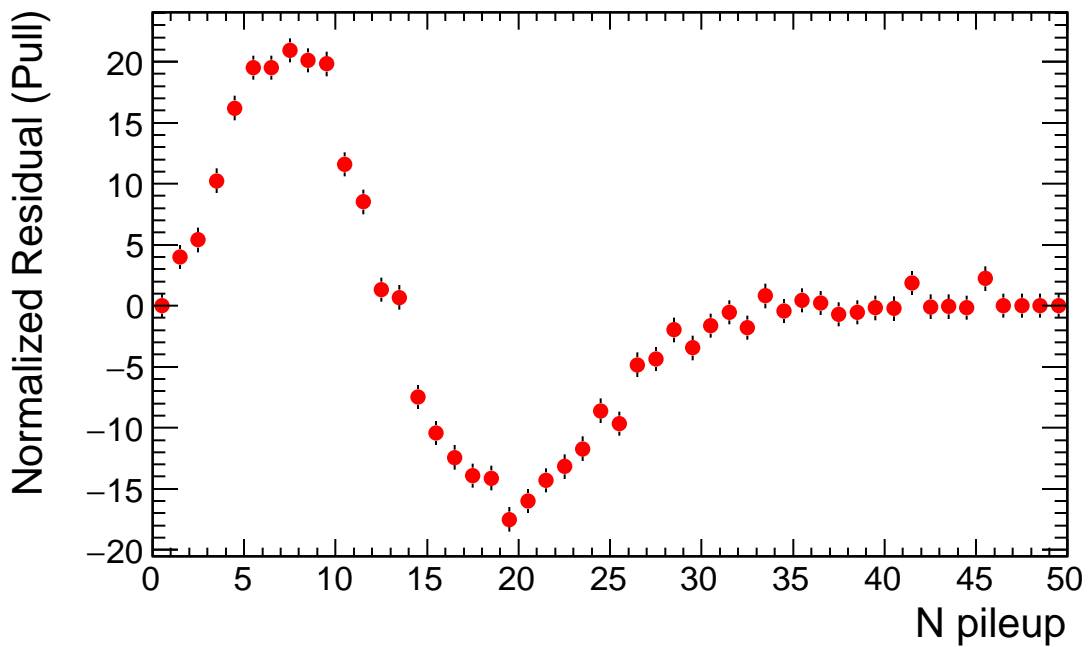
Normalized Residual (Pull): MB xsec=68000 ub, Chi2/Ndf=144.003974357, P-value=0.0



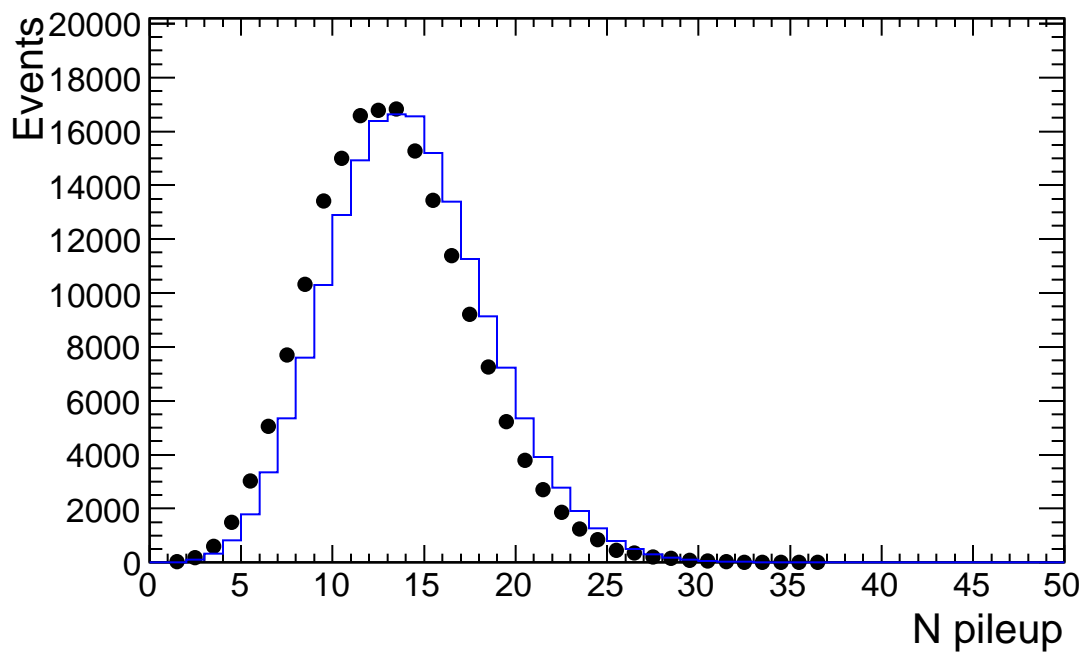
nVert: MB xsec=68500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



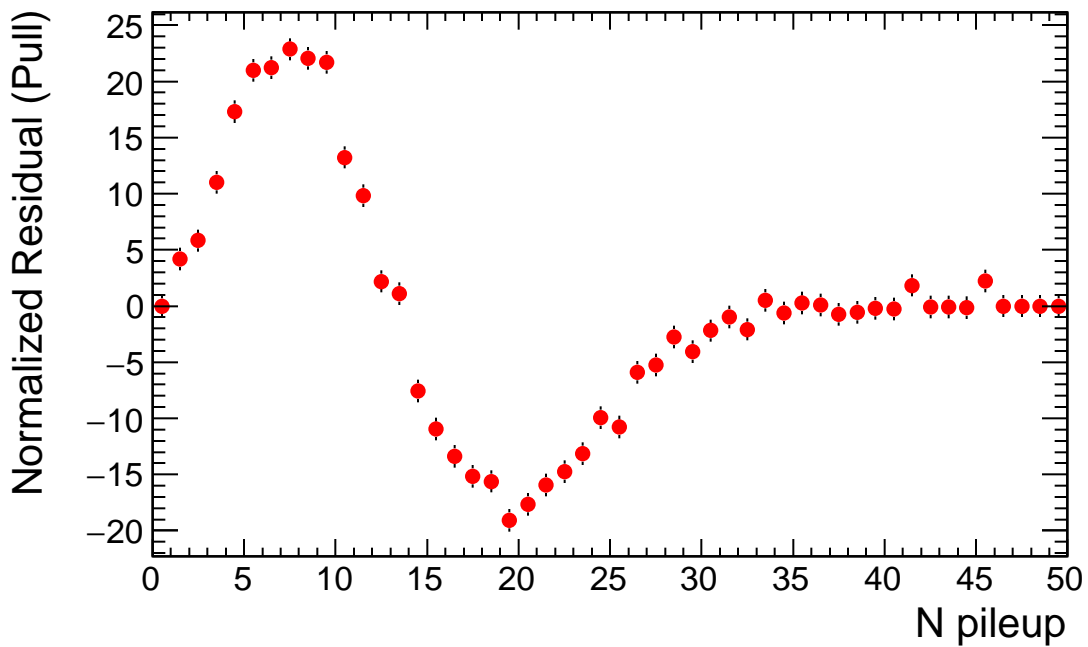
Normalized Residual (Pull): MB xsec=68500 ub, Chi2/Ndf=157.148126012, P-value=0.0



nVert: MB xsec=69000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>

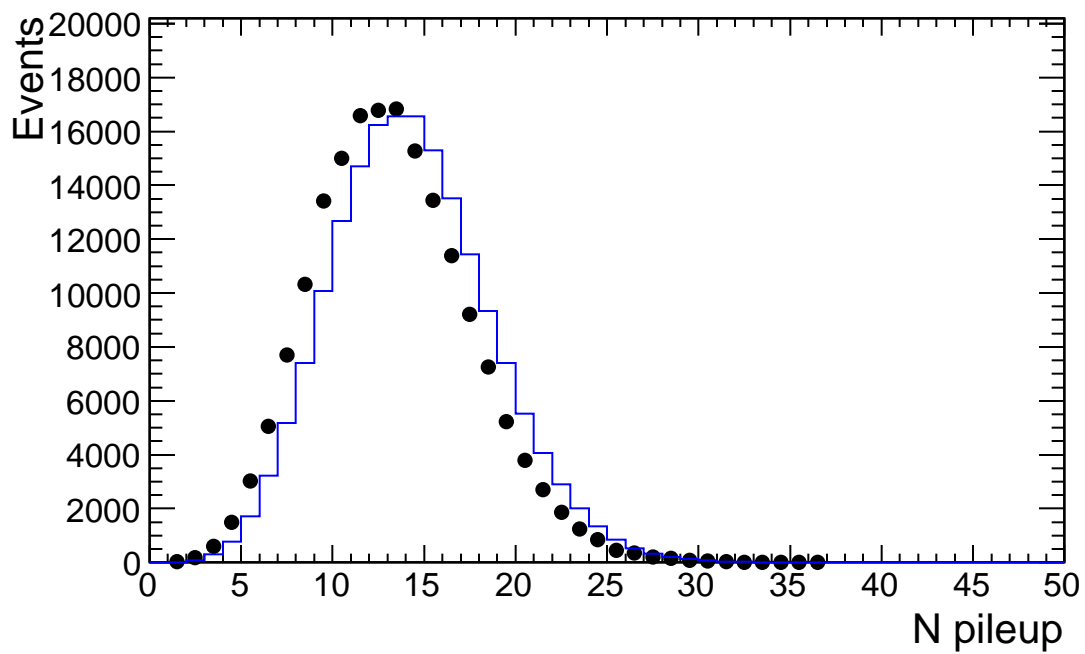


Normalized Residual (Pull): MB xsec=69000 ub, Chi2/Ndf=172.426607351, P-value=0.0

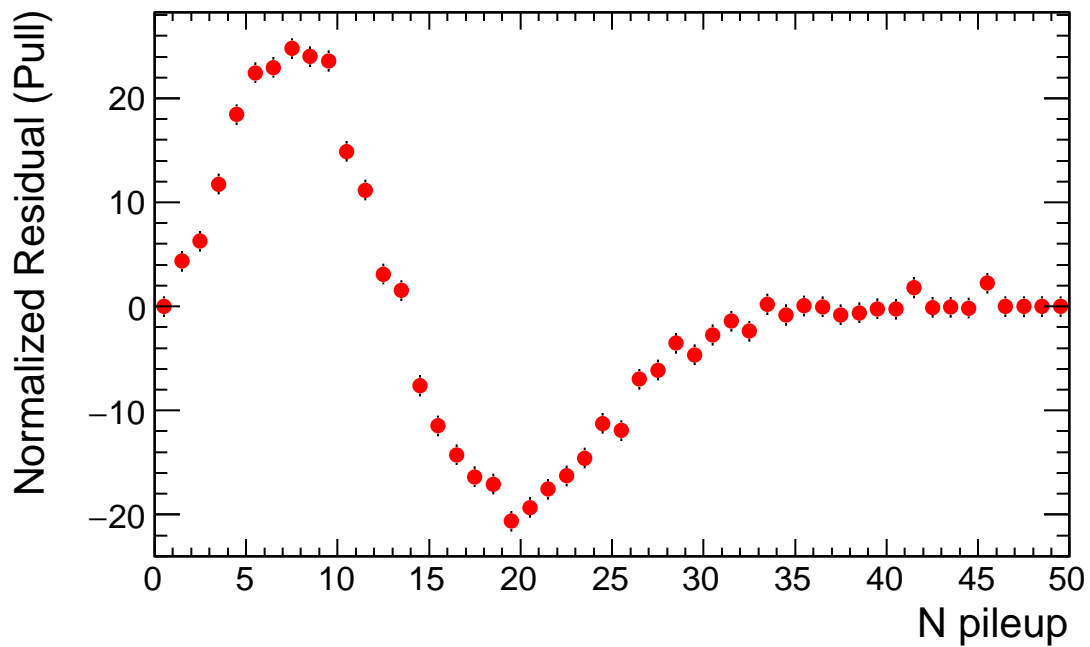




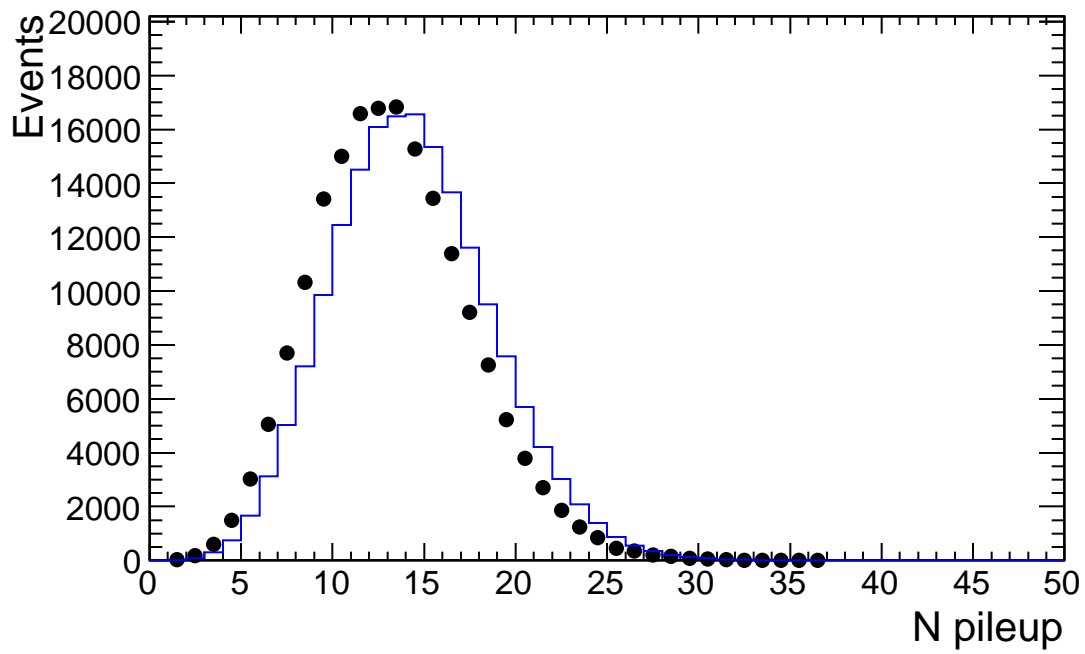
nVert: MB xsec=69500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



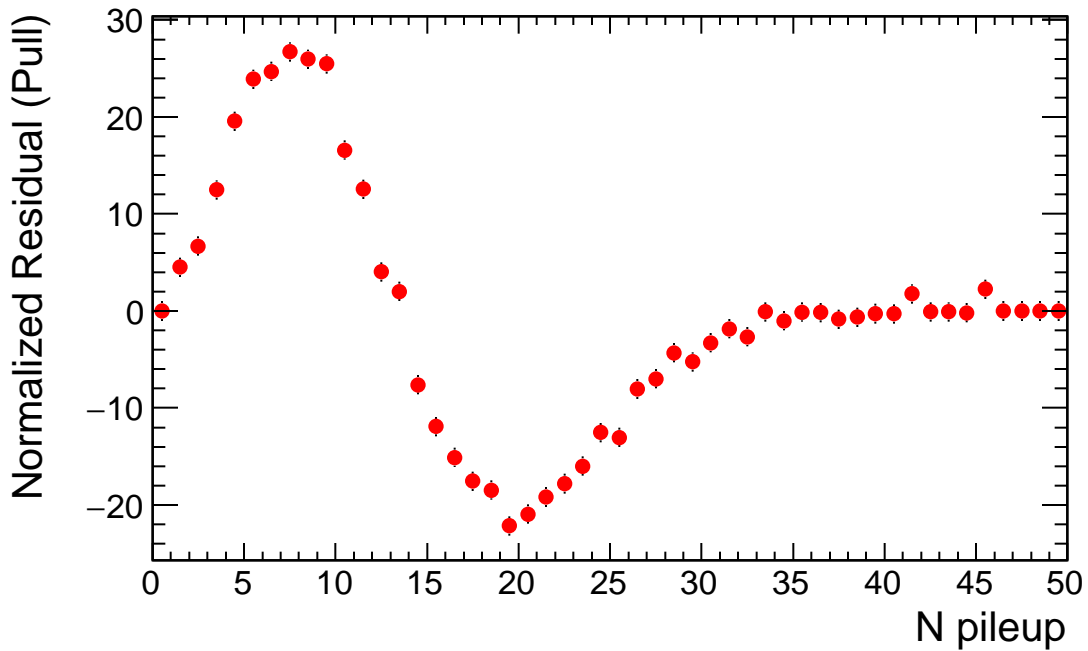
Normalized Residual (Pull): MB xsec=69500 ub, Chi2/Ndf=190.00758938, P-value=0.0



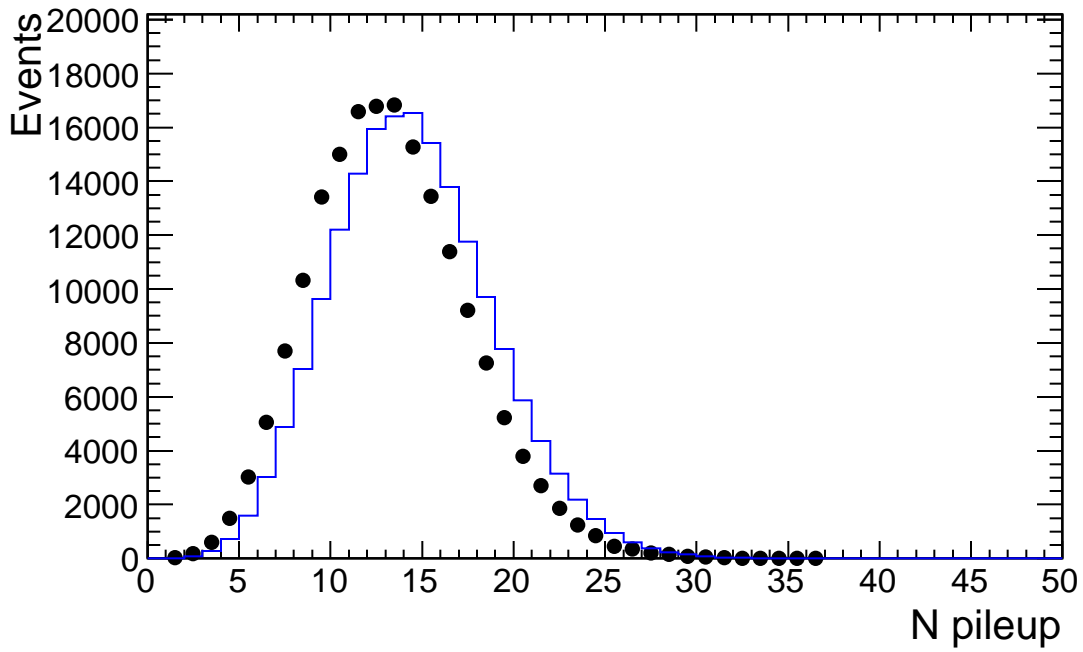
nVert: MB xsec=70000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



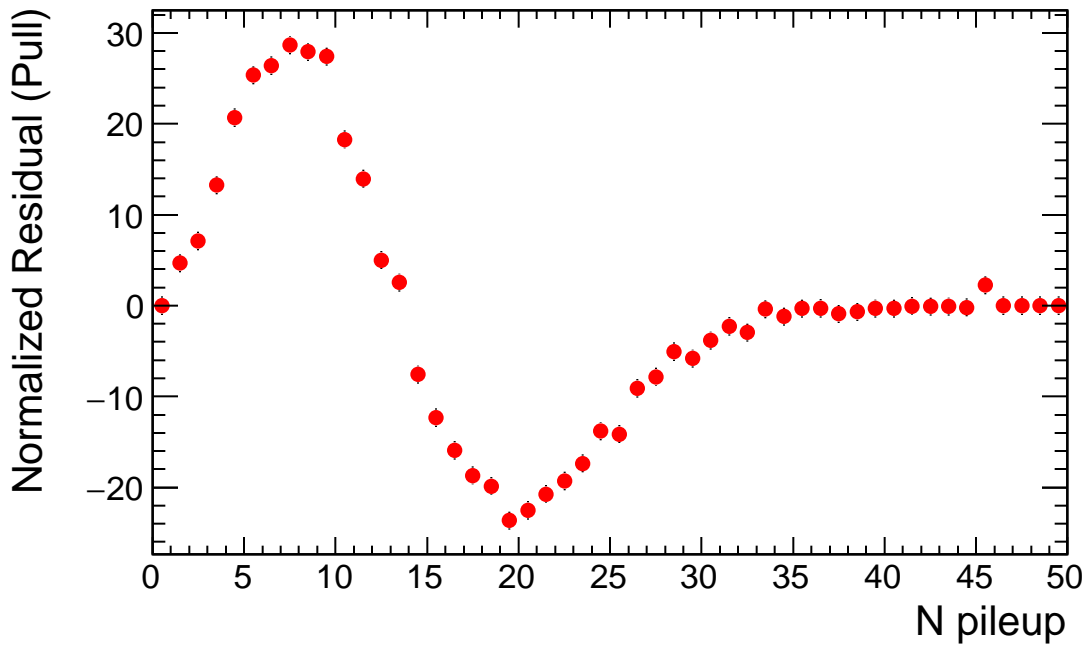
Normalized Residual (Pull): MB xsec=70000 ub, Chi2/Ndf=210.036387296, P-value=0.0



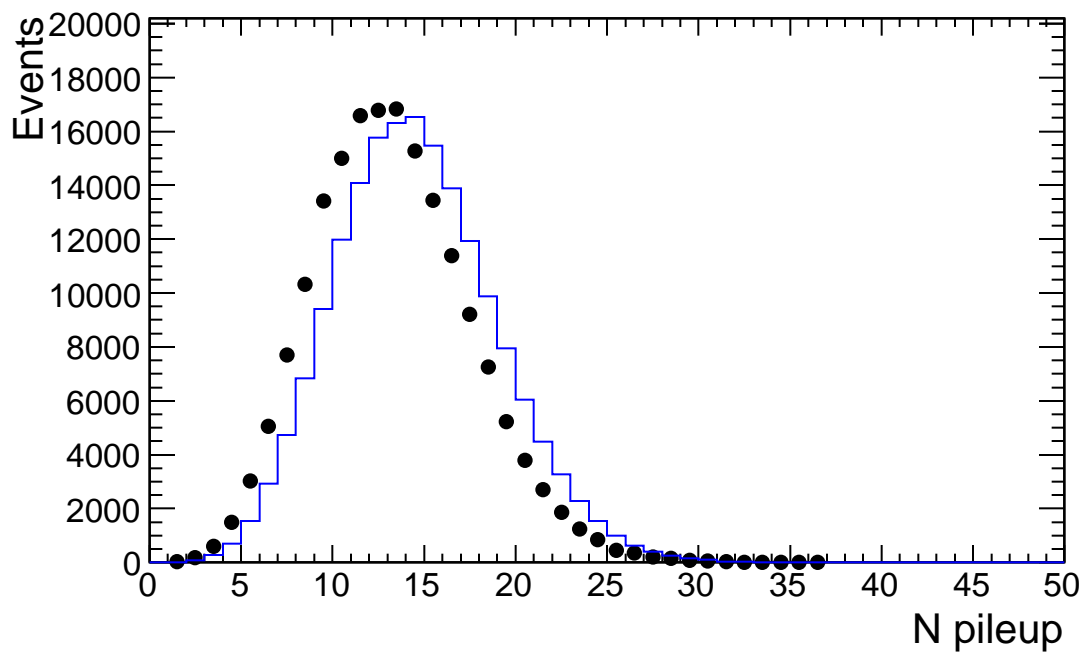
nVert: MB xsec=70500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



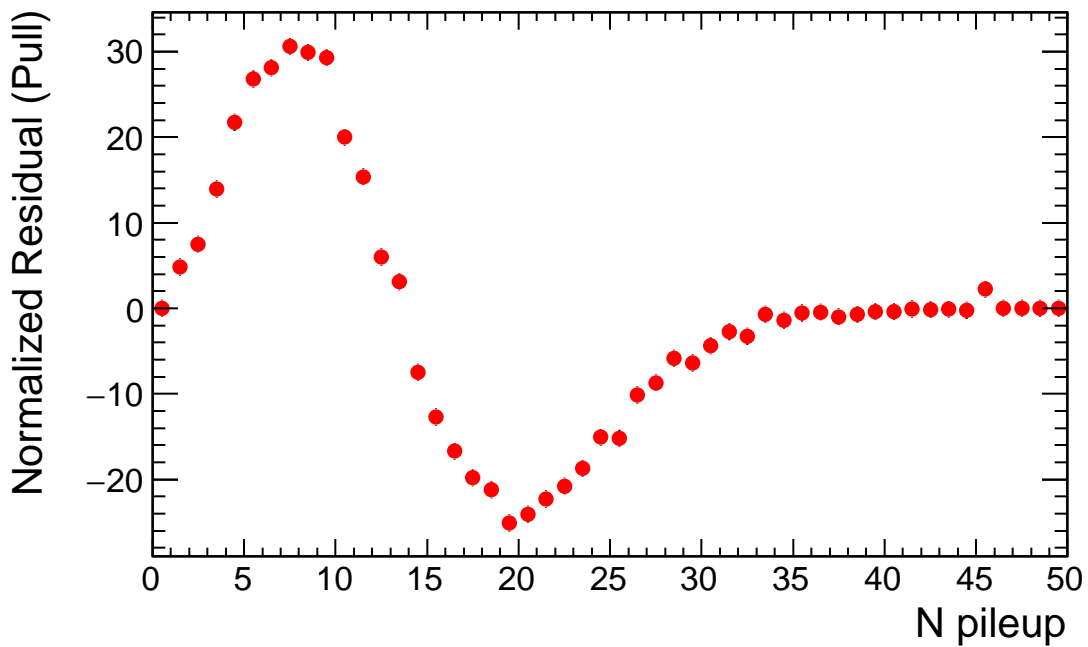
Normalized Residual (Pull): MB xsec=70500 ub, Chi2/Ndf=232.383786947, P-value=0.0



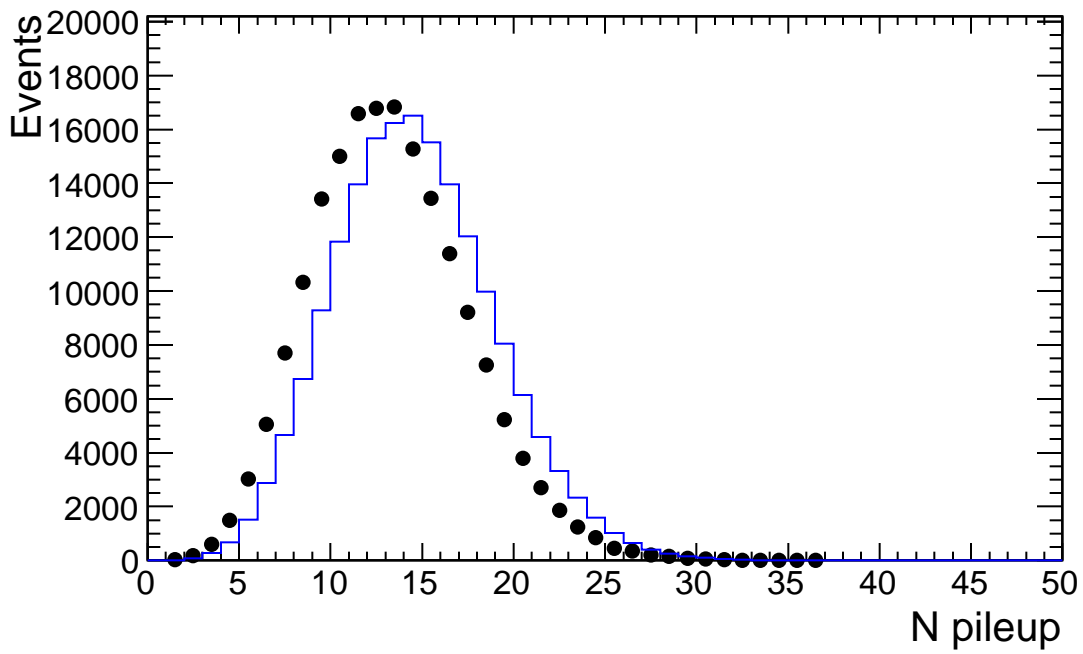
nVert: MB xsec=71000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



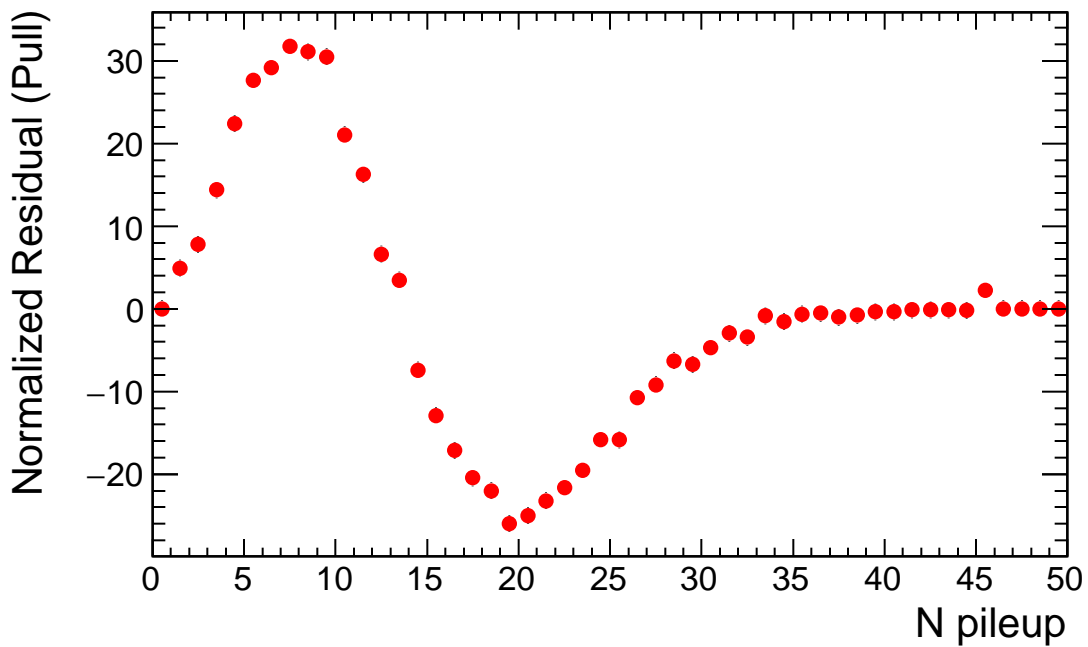
Normalized Residual (Pull): MB xsec=71000 ub, Chi2/Ndf=257.609691845, P-value=0.0



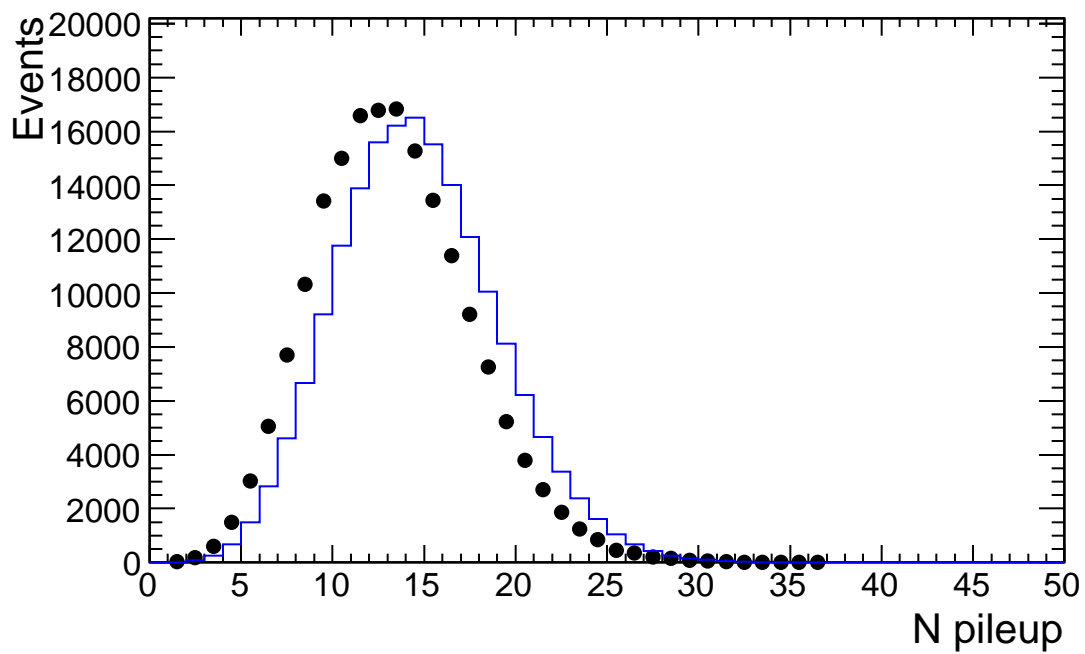
nVert: MB xsec=71300 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



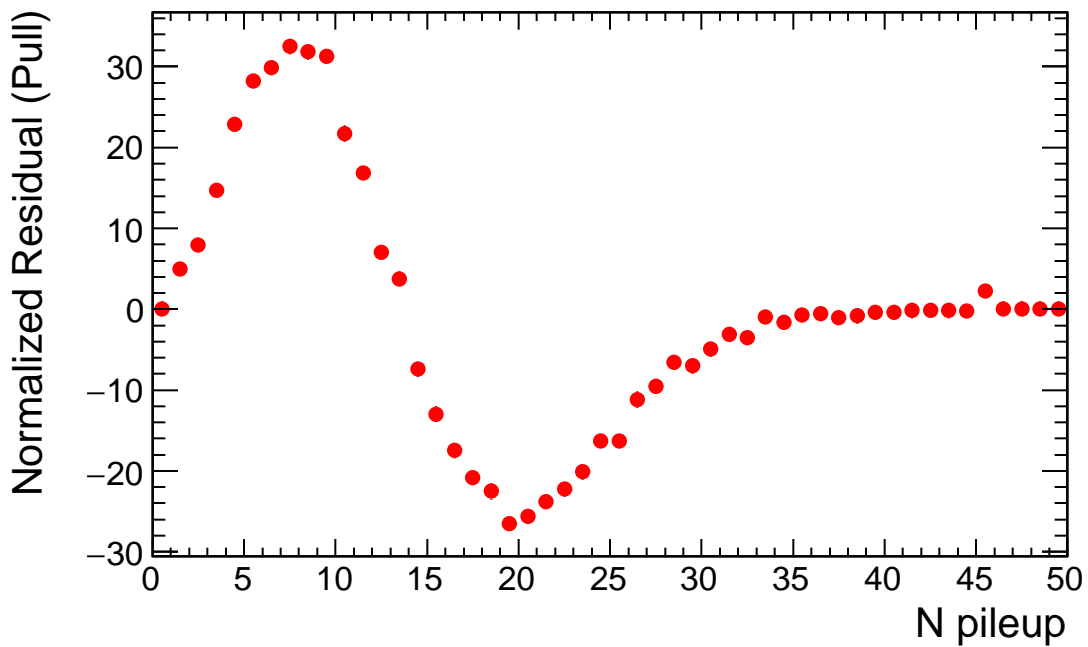
Normalized Residual (Pull): MB xsec=71300 ub, Chi2/Ndf=274.00442676, P-value=0.0



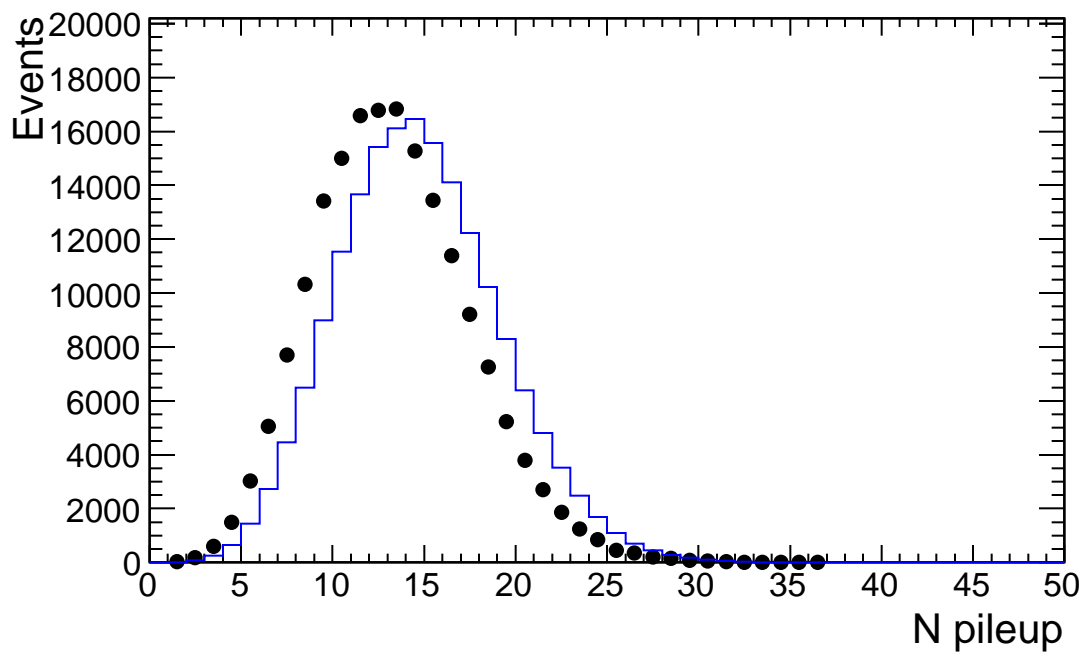
nVert: MB xsec=71500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



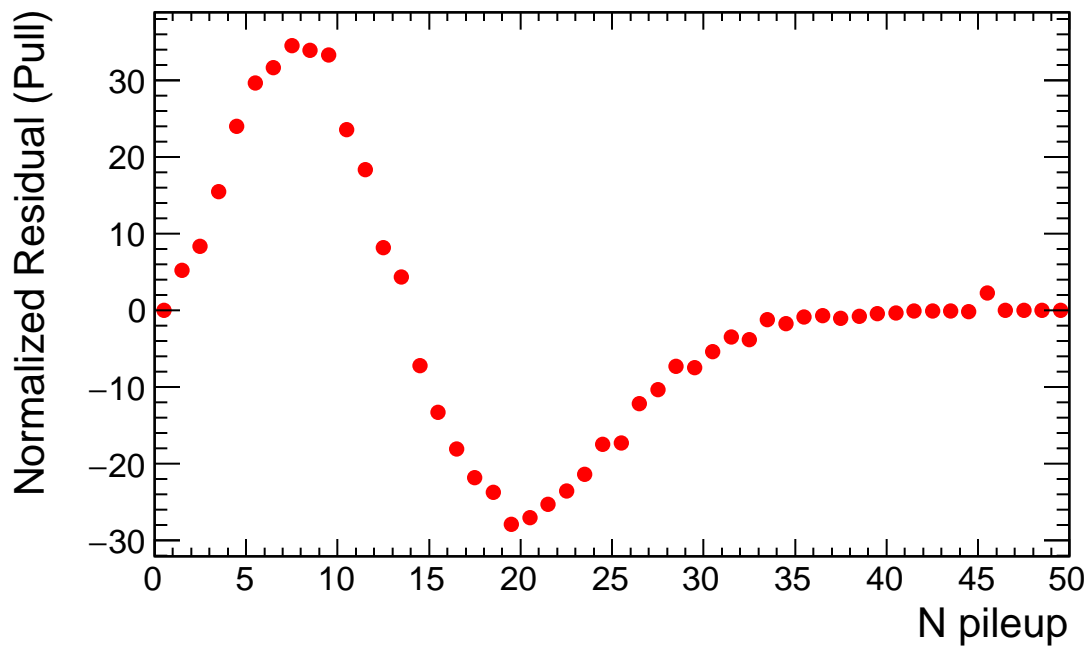
Normalized Residual (Pull): MB xsec=71500 ub, Chi2/Ndf=285.457475005, P-value=0.0



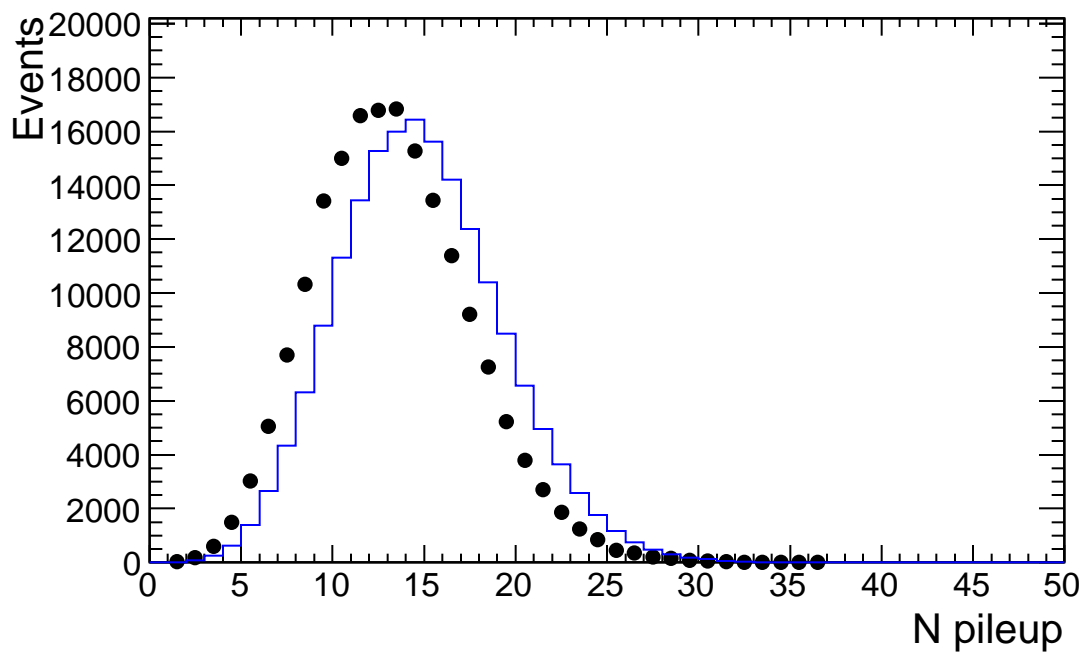
nVert: MB xsec=72000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



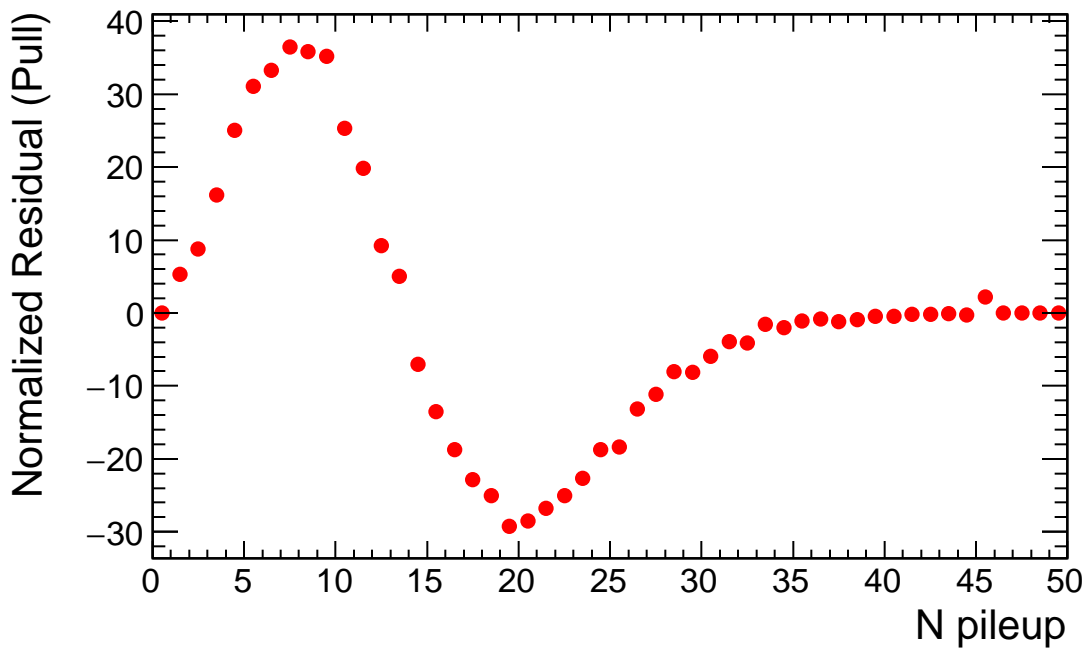
Normalized Residual (Pull): MB xsec=72000 ub, Chi2/Ndf=315.905654678, P-value=0.0



nVert: MB xsec=72500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>

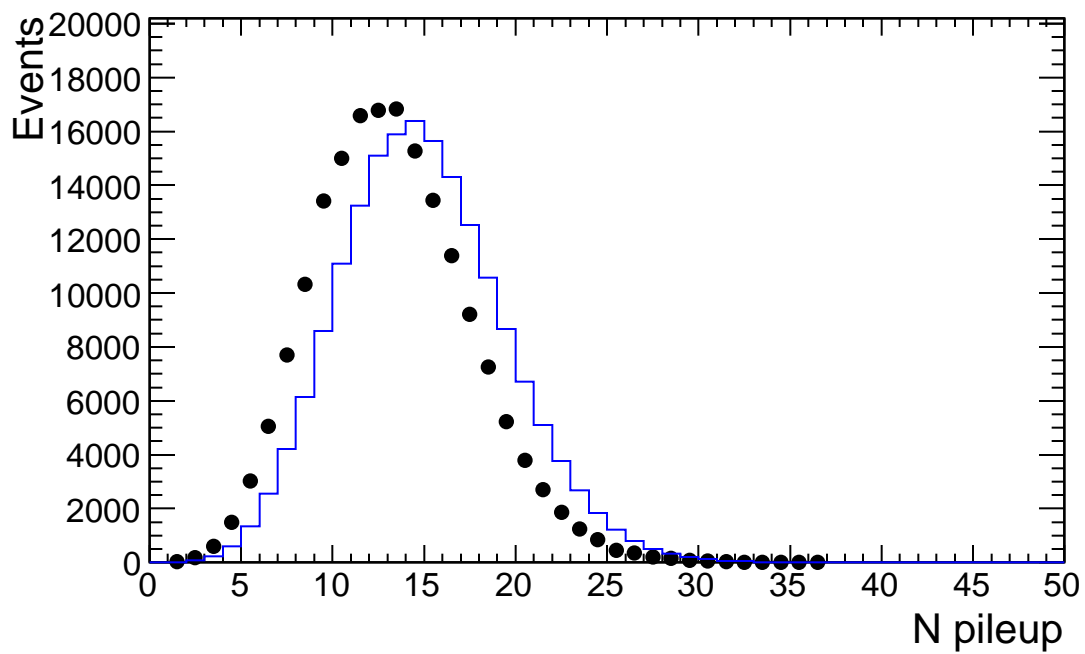


Normalized Residual (Pull): MB xsec=72500 ub, Chi2/Ndf=348.907690799, P-value=0.0

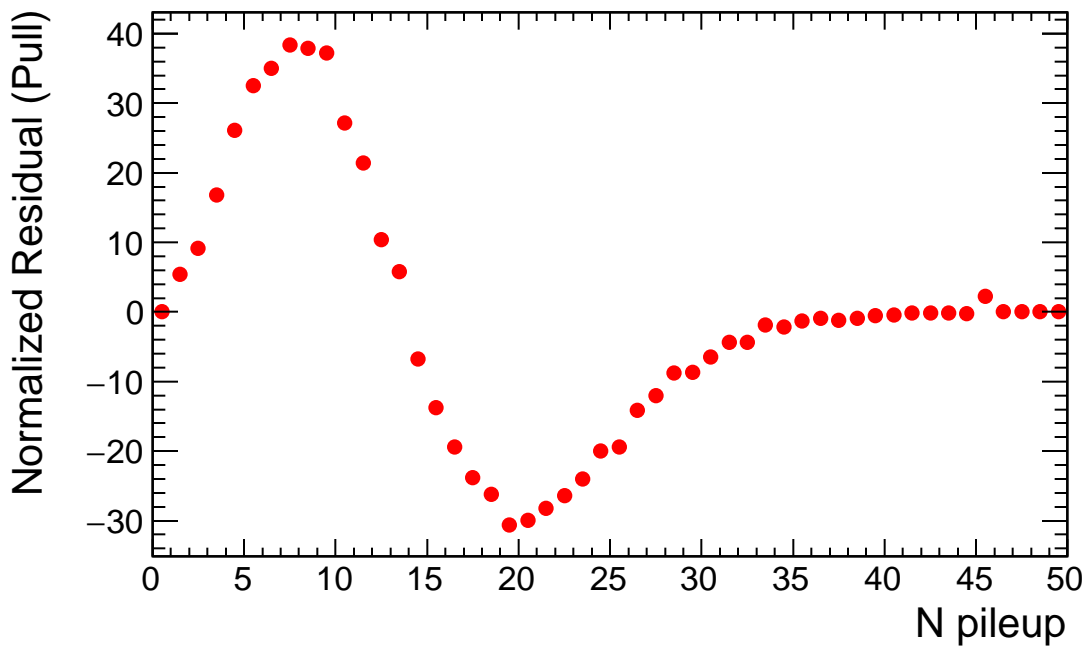




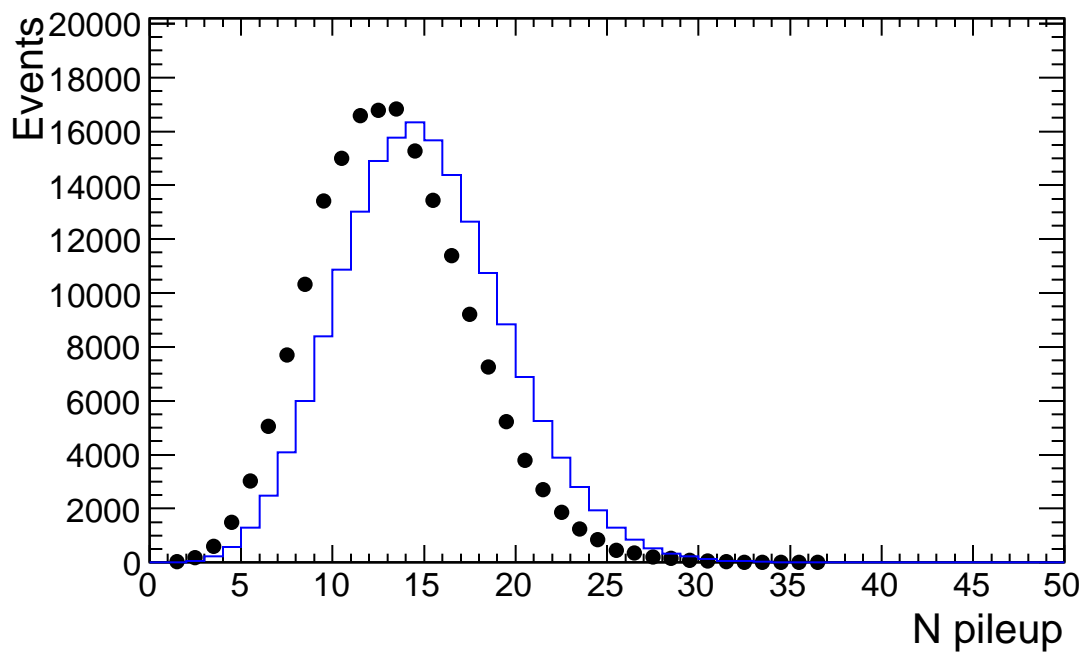
nVert: MB xsec=73000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



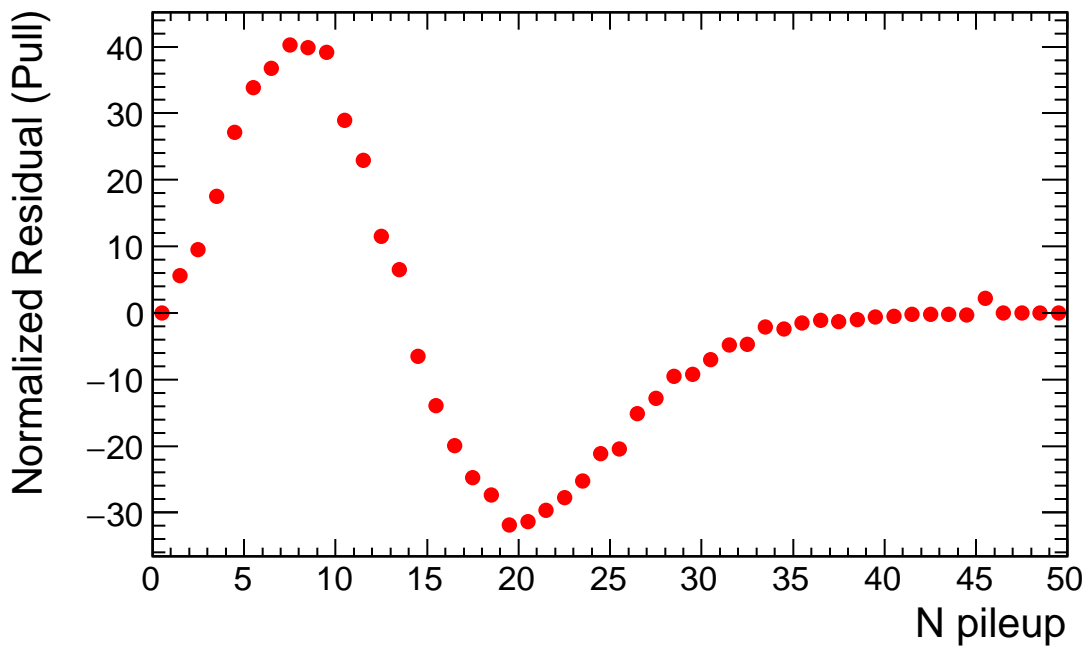
Normalized Residual (Pull): MB xsec=73000 ub, Chi2/Ndf=384.402837329, P-value=0.0



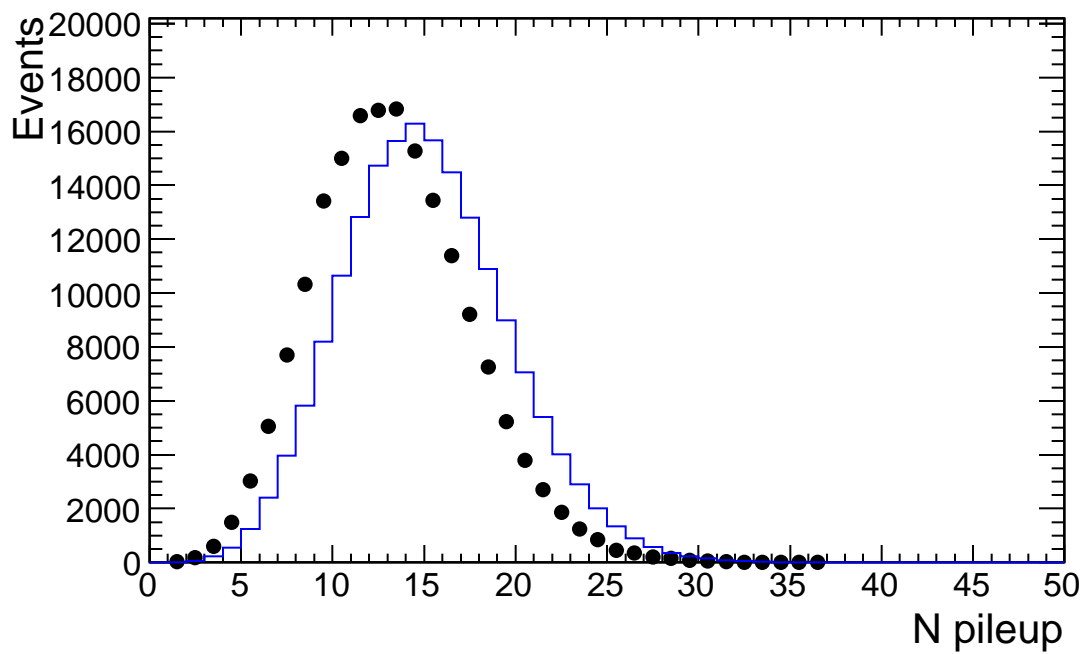
nVert: MB xsec=73500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



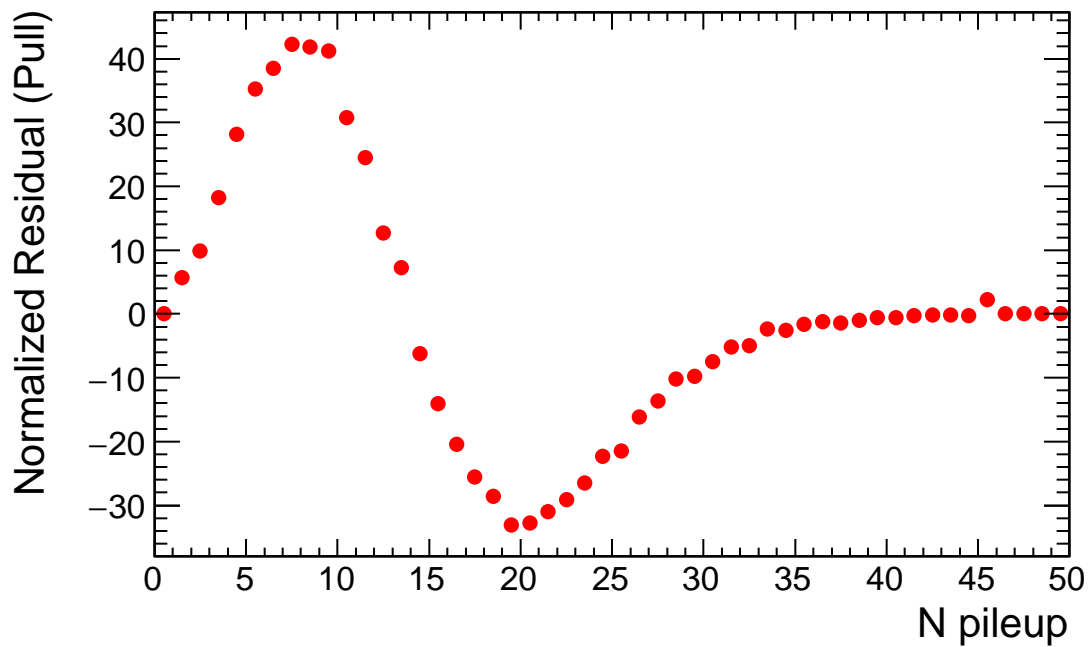
Normalized Residual (Pull): MB xsec=73500 ub, Chi2/Ndf=422.324968301, P-value=0.0



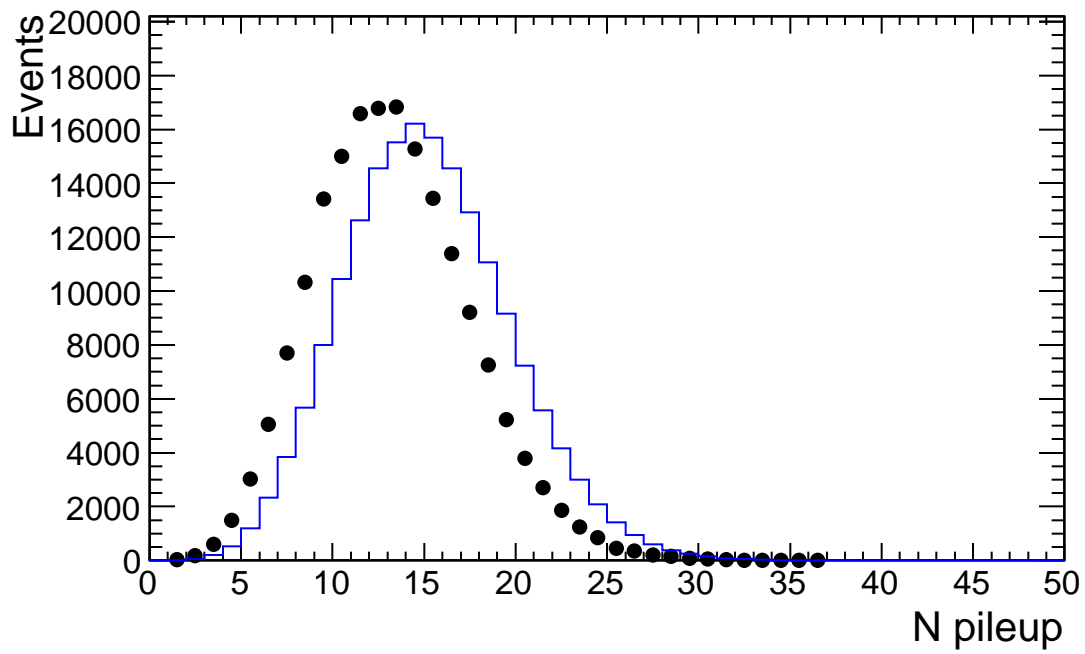
nVert: MB xsec=74000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



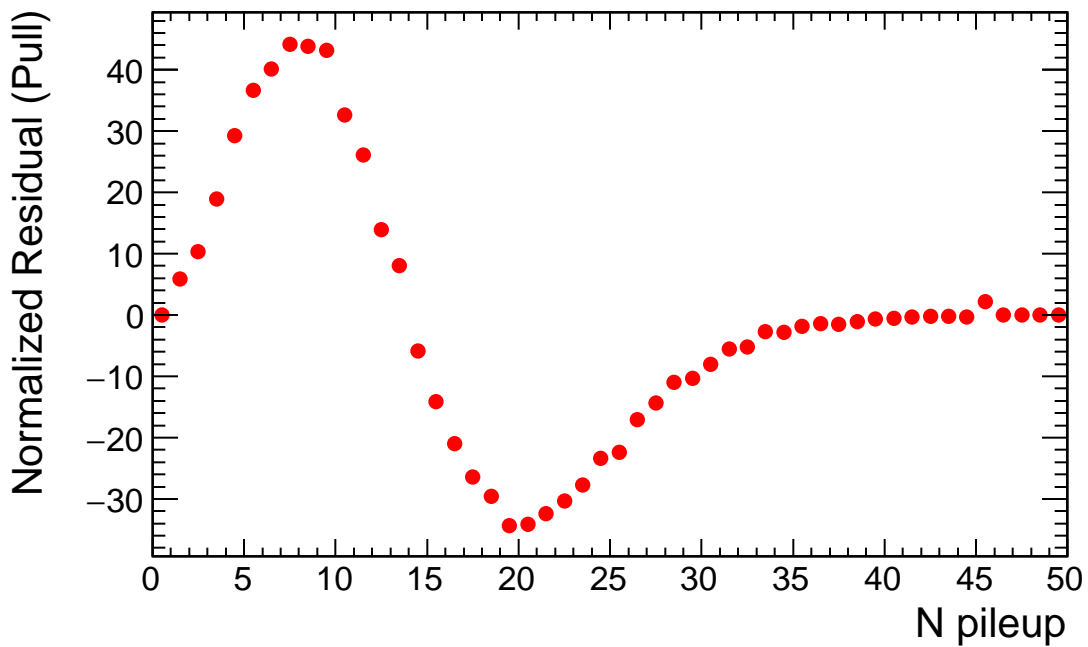
Normalized Residual (Pull): MB xsec=74000 ub, Chi2/Ndf=462.608757571, P-value=0.0



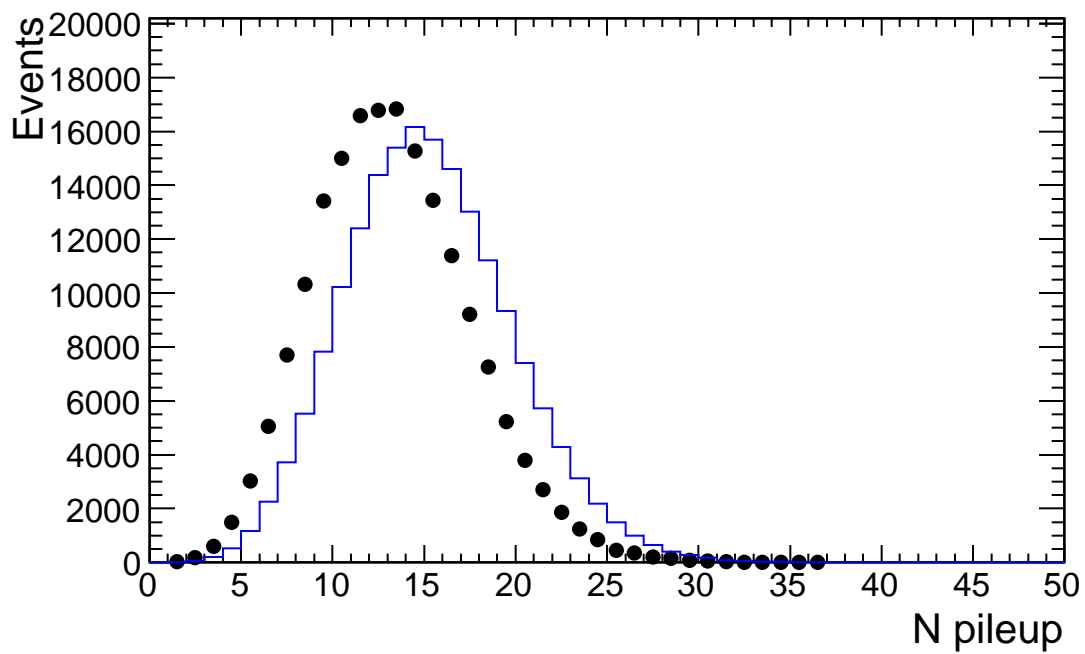
nVert: MB xsec=74500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



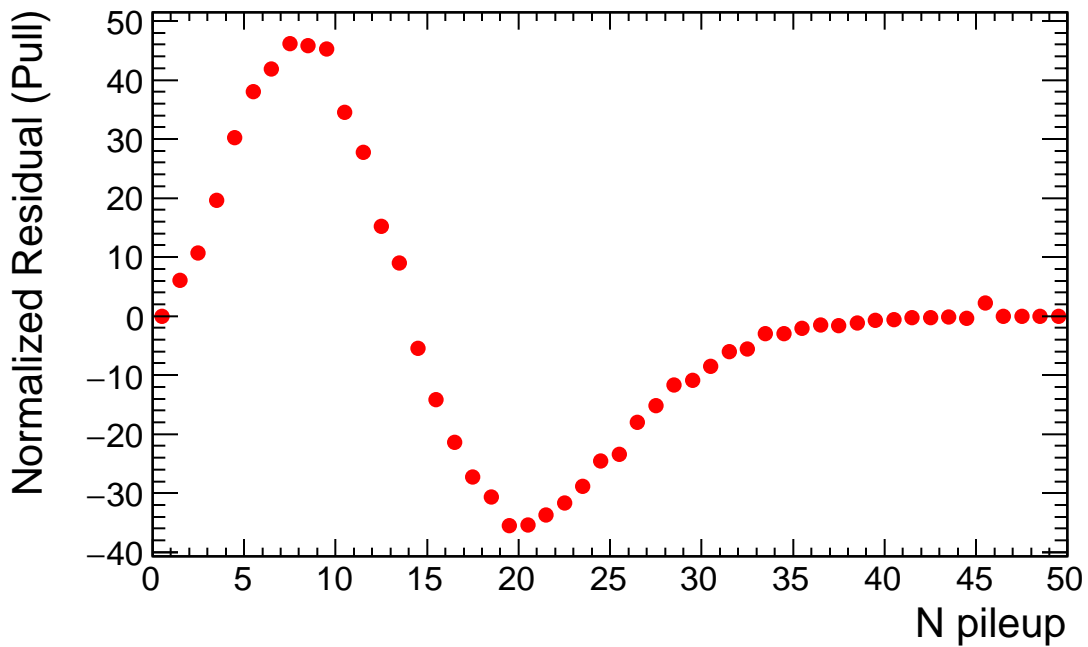
Normalized Residual (Pull): MB xsec=74500 ub, Chi2/Ndf=505.193548596, P-value=0.0



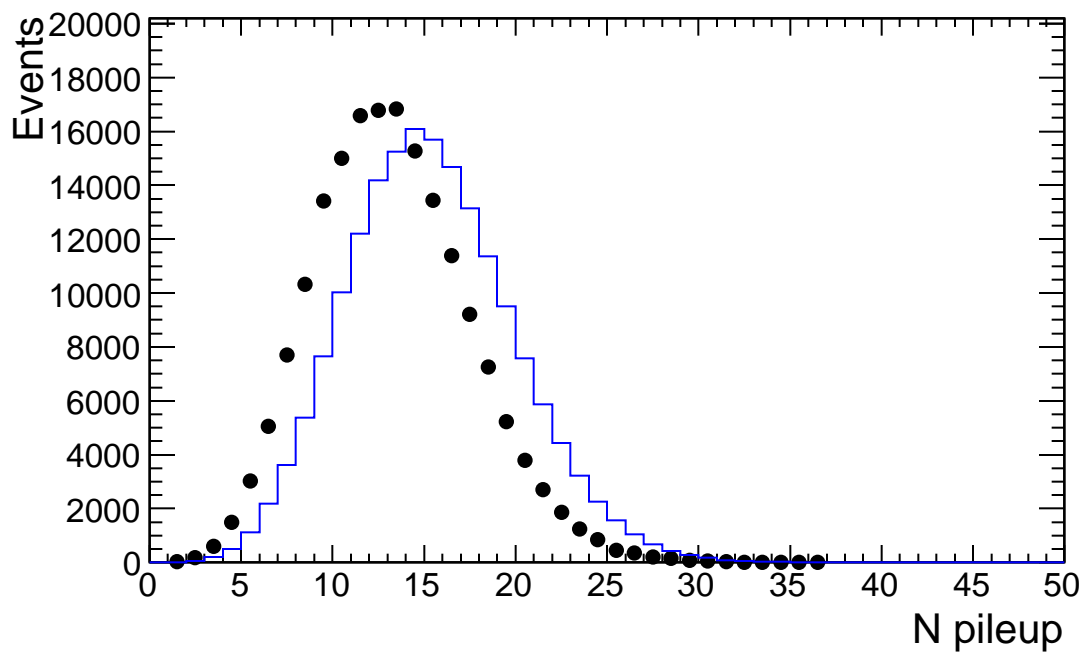
nVert: MB xsec=75000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



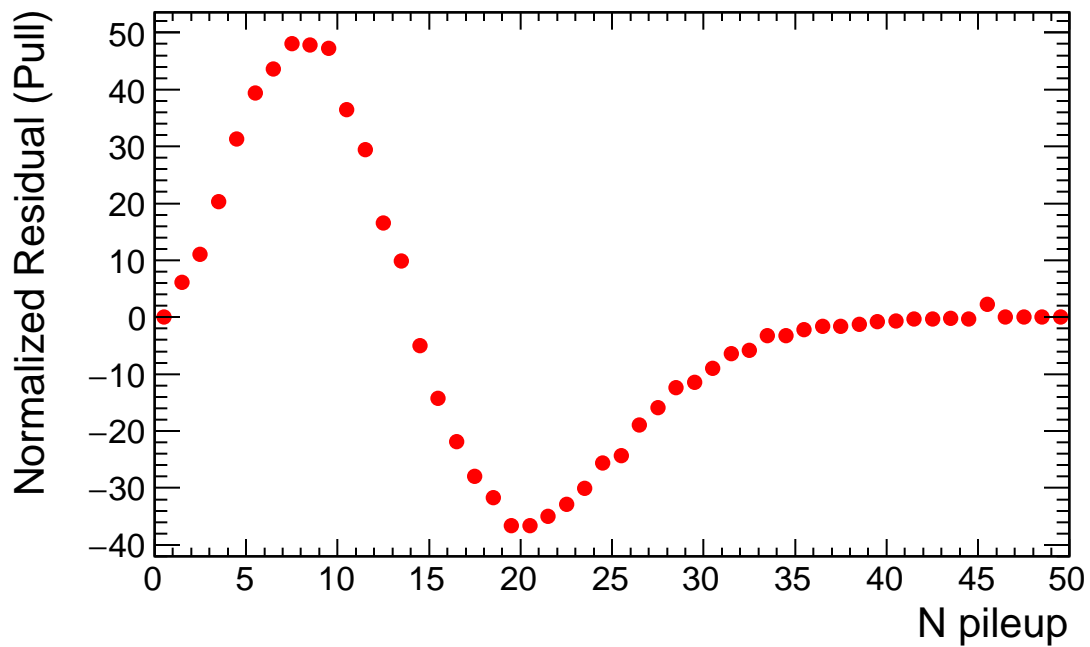
Normalized Residual (Pull): MB xsec=75000 ub, Chi2/Ndf=550.025421377, P-value=0.0



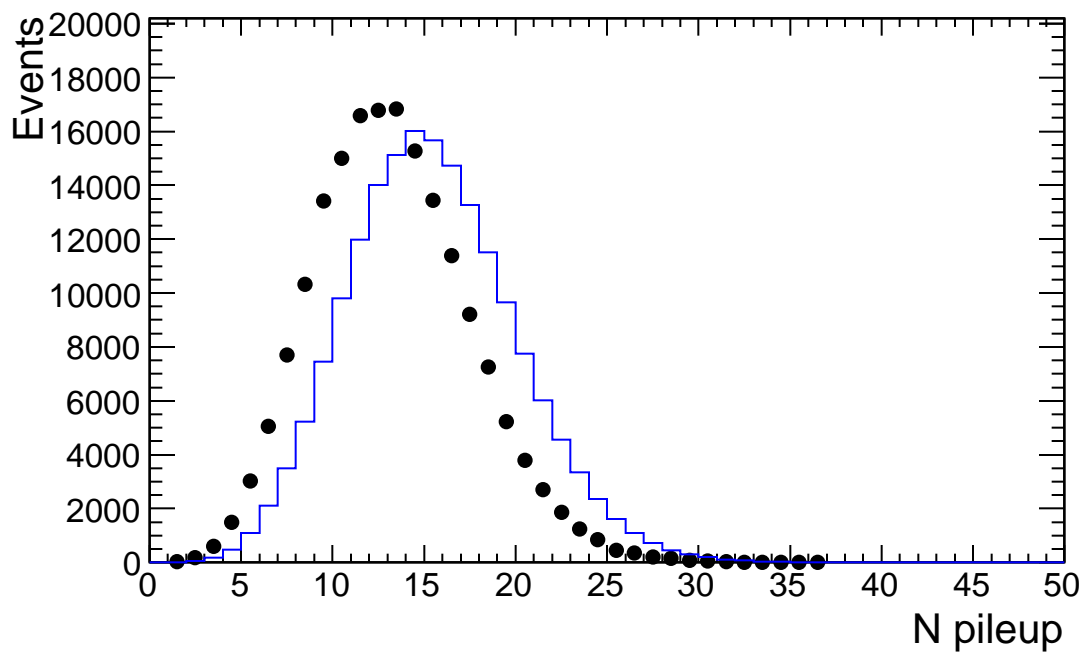
nVert: MB xsec=75500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



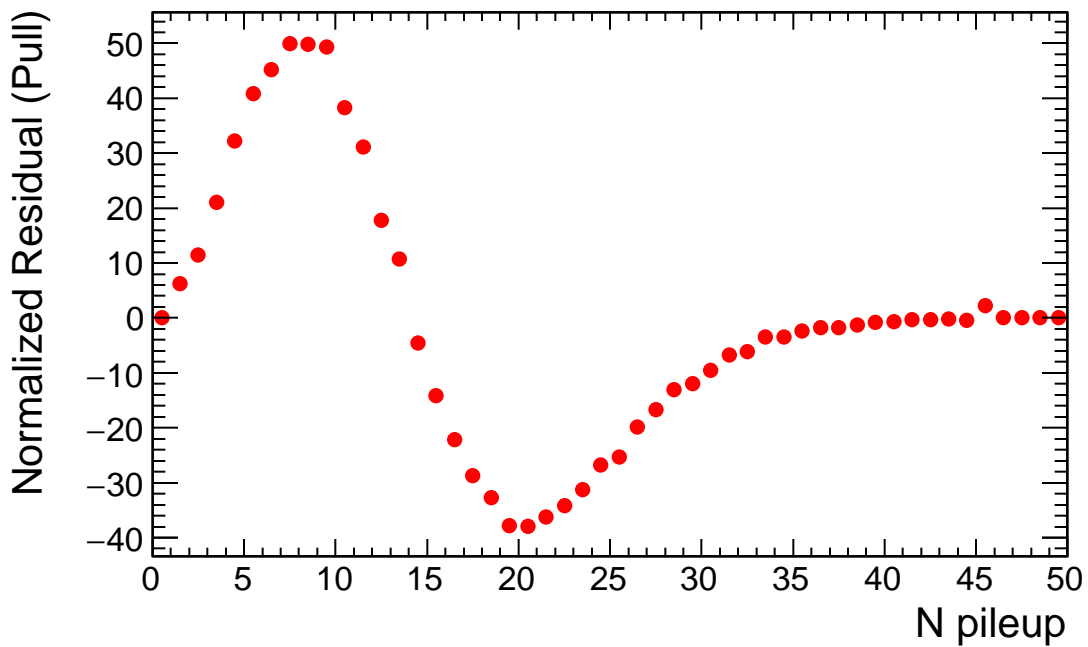
Normalized Residual (Pull): MB xsec=75500 ub, Chi2/Ndf=597.057963912, P-value=0.0



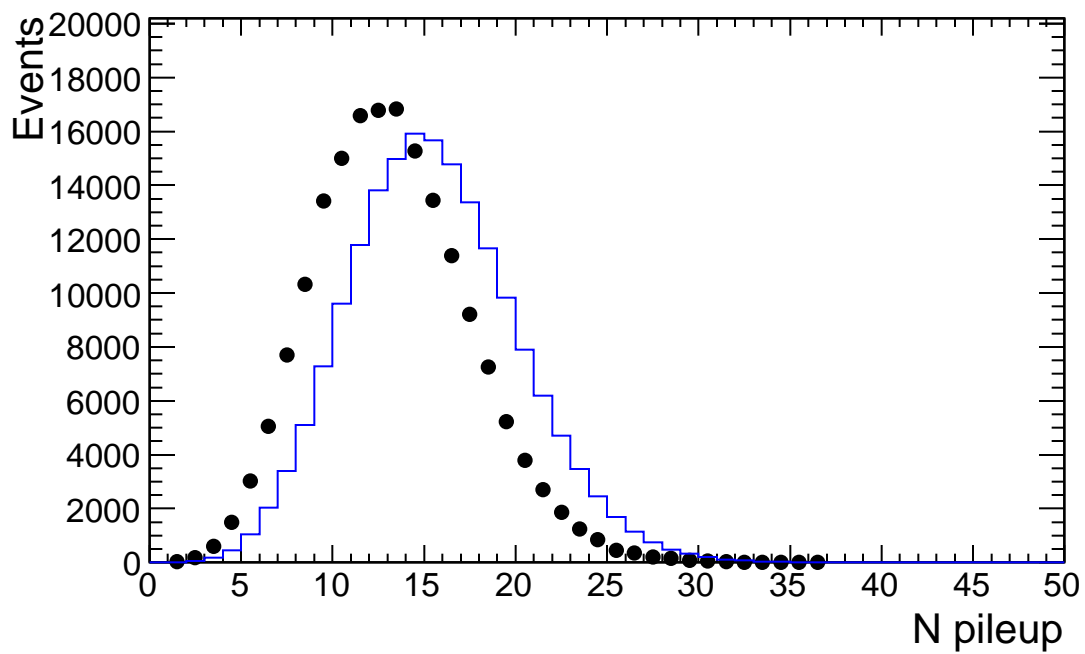
nVert: MB xsec=76000 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>



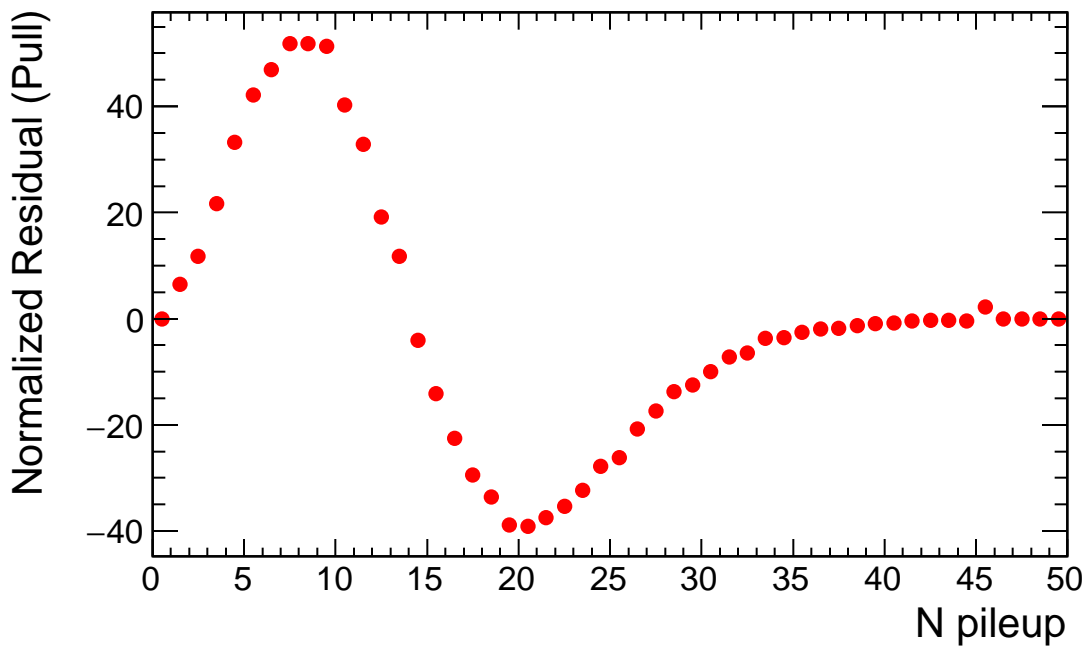
Normalized Residual (Pull): MB xsec=76000 ub, Chi2/Ndf=646.252211994, P-value=0.0



nVert: MB xsec=76500 ub CMS 13 TeV 2016B L=589 pb<sup>-1</sup>

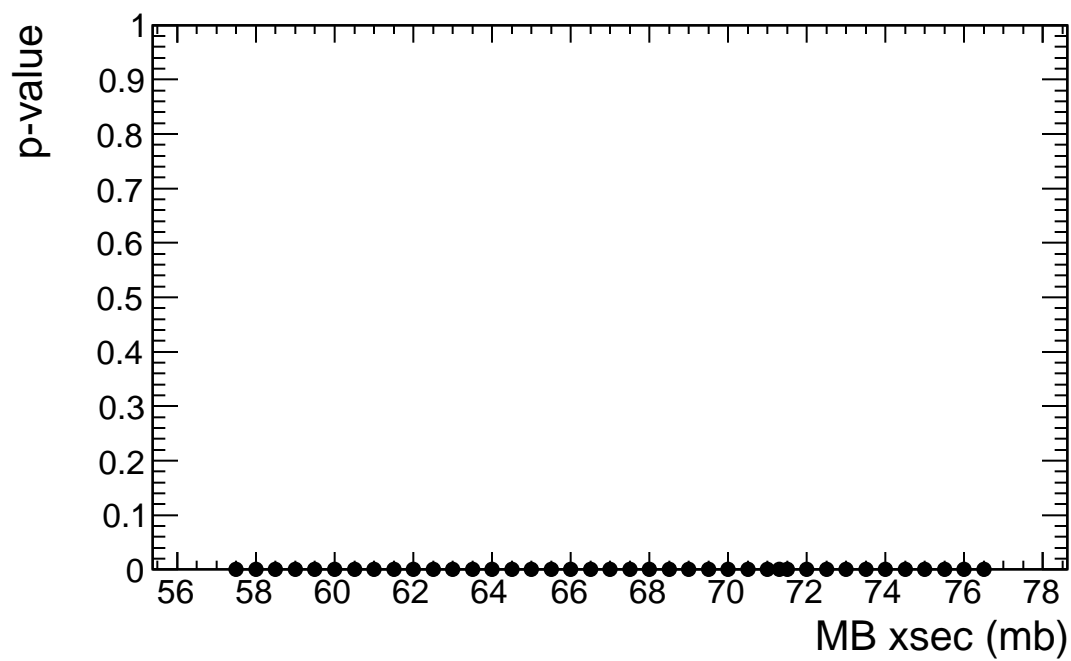


Normalized Residual (Pull): MB xsec=76500 ub, Chi2/Ndf=697.576185876, P-value=0.0





Pileup Data/MC matching p-value vs. MB xsec



Pileup Data/MC matching Chi2/Ndf vs. MB xsec, mini at 64.703

