## 1 Effect of uncertainties on 2UED/RPP limits

In this section all plots done with mclimit for interp/extrap and normal for stat. constraint.

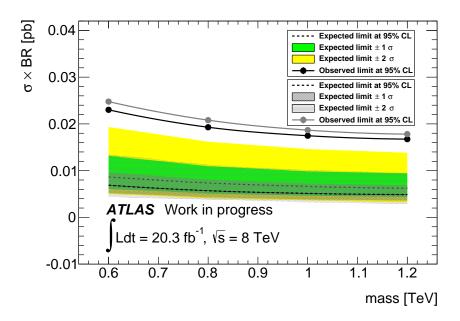


Figure 1: Limit vs mass for 2UED/RPP signal. Usual colors: all uncertainties (final limits), Grey: no uncertainties (neither syst. nor stat.).

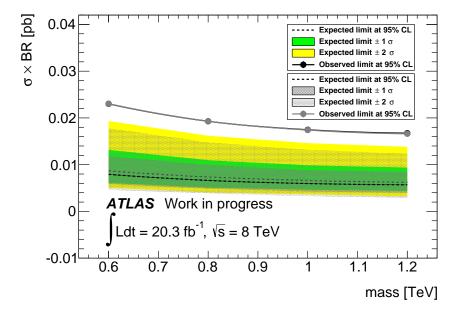


Figure 2: Limit vs mass for 2UED/RPP signal. Usual colors: all uncertainties (final limits), Grey: only fakes uncertainties (syst. and stat.).

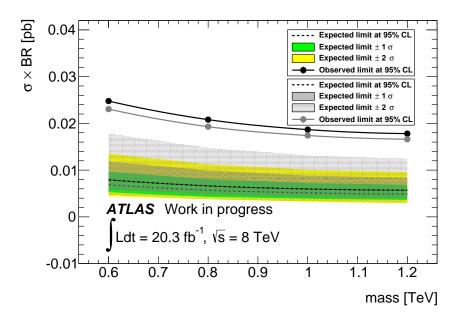
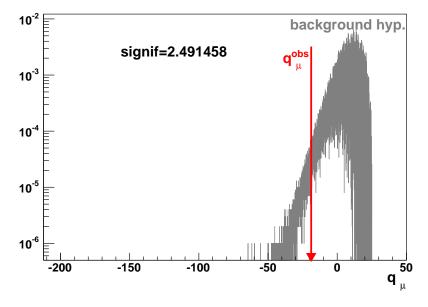


Figure 3: Limit vs mass for 2UED/RPP signal. Usual colors: no uncertainties (neither syst. nor stat.), Grey: only fakes uncertainties (syst. and stat.).



 $Figure \ 4: \ Observation \ significance \ for \ 2UED/RPP \ signal \ with \ all \ uncertainties \ (final \ limits).$ 

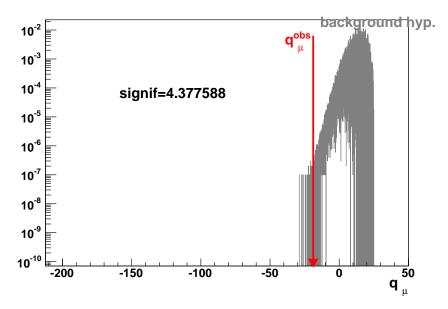


Figure 5: Observation significance for 2UED/RPP signal with no uncertainties (neither syst. nor stat.).

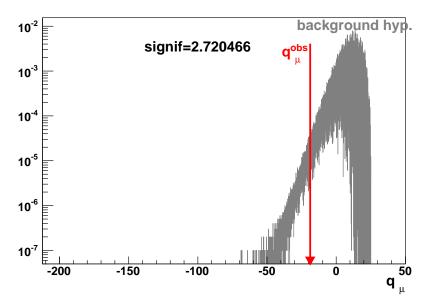


Figure 6: Observation significance for 2 UED/RPP signal with only fakes uncertainties (syst. and stat.).

## 2 Effect of interpolation/extrapolation and stat. constraint

In this section all uncertainties (syst. and stat.) are included.

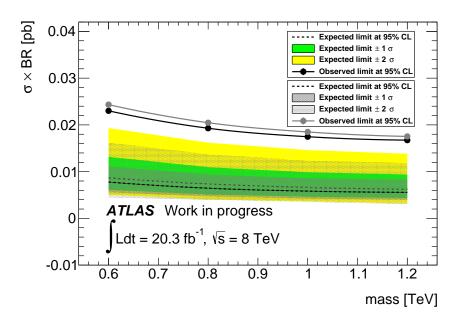


Figure 7: Limit vs mass for 2UED/RPP signal. Usual colors: mclimit (for interp/extrap) and normal (for stat. constraint), Grey: mclimit (for interp/extrap) and log-normal (for stat. constraint).

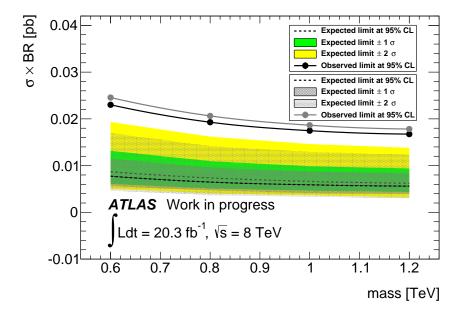


Figure 8: Limit vs mass for 2UED/RPP signal. Usual colors: mclimit (for interp/extrap) and normal (for stat. constraint), Grey: poly+expo (for interp/extrap) and log-normal (for stat. constraint).

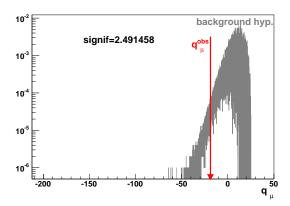


Figure 9: Observation significance for 2UED/RPP signal with mclimit (for interp/extrap) and normal (for stat. constraint).

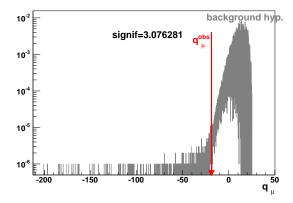


Figure 10: Observation significance for 2UED/RPP signal with mclimit (for interp/extrap) and log-normal (for stat. constraint)

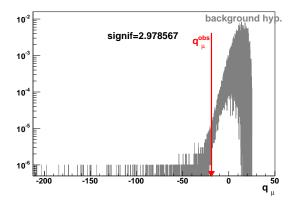


Figure 11: Observation significance for 2UED/RPP signal with poly+expo (for interp/extrap) and log-normal (for stat. constraint)