Title: Precision RENORM/MBR Diffraction Predictions Confront Recent LHC Data

Abstract: Diffractive, elastic, and precision total pp cross-section predictions by the RENORM/MBR model are compared to ATLAS, CMS, and TOTEM measurements. Most of the results are consistent among experiments, confirming the predictions down to the less than 2% level of the model’s systematic uncertainties. A significant discrepancy between the ATLAS and CMC total inelastic cross section at 13 TeV is observed that needs to be reconciled to test the model’s predictions at this energy.