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**Uncertainties in model predictions of Xmax** RASHA ABBASI, GORDON THOMSON, University of Utah — Recent measurements at the LHC of the p-p total cross section have provided better constraints to the hadronic models used for cosmic ray air showers simulation. However, uncertainties due to extrapolations from accelerator data up to center of mass of 250 TeV ($3 \times 10^{19}$ eV in a cosmic rays lab frame) introduces significant uncertainties in predictions of the depth of shower maximum, called Xmax. In this work we estimate a lower limit on these uncertainties in $<$ Xmax $>$ among the modern models in use in the field.

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