Extrapolation of proton-proton cross section to Cosmic Ray Energies using Geometrical Model

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We present the new parameterization of the hadronic matter distribution in the geometrical picture of elastic scattering. Our model contains four free energy-dependent parameters that allows us for the better description of differential elastic cross section data measured in accelerator experiments from ISR to LHC energies. Simple linear dependence of all parameters on the logarithm of enegy above $\sqrt{s}$ = 300 GeV allows for the extrapolation of elastic, inelastic and total proton-proton cross sections to ultra high energies seen in cosmic rays. Results of extrapolation are in accordance with cross sections presented by ground-based cosmic ray eperiments like AUGER or Telescope Array. Our parameterization shows also agreement with "BEL behaviour" of proton.