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Sensitivity of KASCADE-Grande data to hadronic interaction models

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KASCADE-Grande is a large detector array for the measurement of cosmic ray air showers in the primary energy range of 100 TeV to 1 EeV. Due to the multi-detector concept of the experimental set-up, various observables of the electromagnetic, the muonic and for lower primary energies also the hadronic particle component are measured for individual air showers. The experimental data are compared to predictions of CORSIKA simulations using high-energy hadronic interaction models (e.g. QGSJET or EPOS), as well as low-energy interaction models (e.g. FLUKA or GHEISHA). This contribution will summarize the results of such investigations. In particular, the validity of the new EPOS version 1.99 for EAS with energy around 100 PeV will be discussed.

If this is a contributed presentation, please indicate preference for Oral (O) or Poster (P):

O

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