

Talk at Splinter Meeting

Splinter E

SPECTRAL HARDENING OF RELATIVISTIC GALACTIC COSMIC RAY
PROTONS

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The transport of Galactic cosmic rays is investigated in the energy range of $70 \text{ GeV} \leq E \leq 10^6 \text{ GeV}$ including the newly calculated proton loss rate due to pion production (Krakau and Schlickeiser 2015). The break in the energy loss rate at about 200 GeV leads to a hardening from low to high energies in the differential number density of about $\sim E^{0.1}$. This break is confirmed by measurements of different cosmic ray experiments.