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4. High energy cosmic rays (HE-CR I)

Galactic Propagation of Cosmic Rays from Individual Supernova Remnants

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It is widely believed that supernova remnants are the best candidate sources for the acceleration of cosmic rays at least up to PeV energies. Indeed, the gamma-ray spectra of some supernova remnants can be well explained by assuming the decay of neutral pions which are created in hadronic interactions. Therefore,

tting the corresponding gamma spectra, allows to derive the spectra of cosmic rays at the source which are locally injected into our Galaxy. Using these spectra as a starting point, we propagate the cosmic rays through the Galaxy using the publicly available GALPROP code. In this talk, we will present

rst results on the contribution of those SNRs to the total cosmic ray ux and discuss implications.