

Learning the physics of CR transport from the gamma-ray sky

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The extremely accurate charged cosmic-ray data recently provided by the AMS collaboration and the gamma-ray data from Fermi-LAT and other experiments allowed to enter a new era of precision measurements in the CR field, and offer for the first time the unique opportunity to investigate different transport properties in different regions of the Galaxy. I will review the status of the field, the most relevant anomalies detected so far, possible interpretations and ways to disentangle them. I will focus in particular on a novel energy-dependent characterization of the progressive proton hardening towards the GC region obtained with the skyFACT tool, a gamma-ray analysis tool that combines template fitting and image reconstruction techniques: I will discuss the possible impact of unresolved sources on this trend, and eventually compare different physical interpretations in terms of non-standard properties of CR transport.

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