

Abstract number: S3-36 TeV anisotropy 30 min. invited talk
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The Power Spectrum of Cosmic Ray Arrival Directions

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Various experiments show that the arrival directions of multi-TeV cosmic rays show significant anisotropies at small angular scales. It was recently argued (Giacinti & Sigl 2012) that this small scale structure may arise naturally from a global dipole anisotropy in combination with the local realization of turbulent magnetic fields. We show that the non-trivial power spectrum in this setup is a direct consequence of Liouville's theorem in the presence of a local turbulent magnetic field (Ahlers 2014).