

Abstract number: S5-35 General anisotropy 45 min. overview talk
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## Cosmic ray transport and Anisotropies

Biermann, Peter<sup>1</sup>

<sup>1</sup>Max Planck Institute for Radioastronomy, Bonn

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Peter L. Biermann

Max Planck Institut for Radioastronomy, Bonn; Dept. of Physics & Astron., Univ. of Alabama, Tuscaloosa, AL, USA; Institute for Nucl. Phys., KIT, Karlsruhe; and Dept. of Astron. & Physics, Univ. of Bonn, Bonn

Cosmic rays at different energy ranges are believed to have a variety of possible sources, with supernova explosions, pulsars, gamma ray bursts, radio galaxies and large scale shocks some more prominent examples. Sources of all these examples may cover a very large range of energies, to EeV and even beyond, in the case of radio galaxies particles may reach ZeV. Their anisotropies in arrival direction distribution are shaped by the local flow fields, the local magnetic fields topologies, as well as their temporal injection history. We will discuss some basic constraints to all such ideas, both for lower as well as for higher energies, and ways to test these pictures. An interesting challenge arises if the source is a very large shock, with almost steady injection. In the Solar neighborhood the energy supply by supernova explosions is clearly above the threshold for galactic wind formation, and so the magnetic field topology of the disk/wind system ought to be a primary element in any cosmic ray transport theory, both for Galactic as well as extragalactic sources. At ultra high energies the possibility that a high proportion of all cosmic ray particles derive from a very small number, possibly even just one radio galaxy, Centaurus A, can be tested with abundances of heavier chemical elements. Ultra high energy Hydrogen may derive from a very large number of sources, which are probably all flaring, as visibly underlined by both the radio galaxies Virgo A, and Hydra A.