



Anisotropic Turbulent Diffusion of Cosmic Rays in Large Scale Magnetic Fields

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For cosmic ray propagation models following a general Fokker-Planck approach, in various cases spatial anisotropic diffusion has to be taken into account. Within a field-aligned frame of reference, the corresponding diffusion tensor is described by characteristic diagonal elements for parallel and perpendicular diffusion. For an arbitrary magnetic field, however, special care has to be taken in the transformation of this local diffusion tensor to a global reference frame, especially if one likes to distinguish between two distinct perpendicular diffusion characteristics. In this talk I will present recent considerations concerning this transformation, as well as some possible applications in the context of heliospheric and galactic magnetic fields.