

Angular distribution of cosmic rays in the interplanetary magnetic field

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Cosmic ray propagation in the interplanetary medium is considered on the basis of kinetic equation describing the scattering of charged particles by magnetic irregularities and their focusing by regular interplanetary magnetic field. The relationship between cosmic ray distribution function and parameters of energetic particle scattering in the interplanetary medium is investigated. The obtained results are applied to the analyses of solar proton events and galactic cosmic ray anisotropy. The presented calculations show that both intensity and anisotropy of scattering vary significantly from event to event.