Pitch angle diffusion of charged particles by obliquely propagating MHD waves

atsushi okazaki[1], Yasuhiro Kuramitsu[2], Tohru Hada[3]

[1] E.S.S.T.,Kyushu University, [2] ESST, Kyushu Univ., [3] ESST, Kyushu Univ

http://www.esst.kyushu-u.ac.jp/CDS/index_j.html

By performing test particle simulations, we discuss pitch angle diffusion of charged particles in a turbulent magnetic field. We integrate in time ion trajectories under influence of static magnetic field turbulence, which is given as superposition of MHD waves. The wave phases are assumed to be random. We evaluate the diffusion coefficient (in particular, at 90 degrees) as a function of the turbulence amplitude, and the propagation direction of the waves.

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