Pitch Angle Dependence of Field Line Oscillations

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Long-period (10-100s) geomagnetic pulsations is a consequence of oscillating field lines. Ground measurements or satellite based measurements of magnetic field associated with such oscillations provide only local values. Theoretical estimation of structures of such oscillations requires measurements all along the field line. Thus, computed field line structures are always doubtful unless they are related to another independent physically observable quantity. AMPTE/CCE provide a complete pitch angle scan of energetic particles in about 6 seconds. In this paper an attempt has been made to identify the mode structures by using particle fluxes as a function of pitch angle.