ABSTARCT

In this thesis, we have discussed the streaming effects on the spatial damping of circularly polarized waves. Our focus is to examine the damping of electromagnetic waves by employing Kinetic Theory. We use the bi-Kappa distribution function to derive the dispersion relation of parallel propagating electromagnetic waves. In this analysis, we treat the wave vector as complex while the frequency as real. We investigate how the streaming velocity; index kappa and temperature anisotropy affect the spatial damping of circularly polarized waves.