Study of the effects of magnetic field in a collisionless plasma pre-sheath using kinetic trajectory simulation (KTS) model.

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In order to study the variation in thickness of plasma pre-sheath by studying its potential, electric field, total charge density and density distribution of ion and electron in collisionless plasma pre-sheath with the change in magnetic field, we use Kinetic Trajectory Simulation (KTS) model. The characteristic feature of this model is that the distribution function of the particle species involved are calculated directly by solving related kinetic equation along the respective collisionless particle trajectories. In this process, We use oblique magnetic field. Here, the width of pre-sheath depend on applied magnetic field.