

Three dimensional magnetohydrodynamics simulation of magnetic reconnection in sheared field

Koji Kondoh[1]; Masayuki Ugai[2]

[1] RCSCCE, Ehime Univ.; [2] Dept. of Computer Sci., Ehime Univ.

It is generally accepted that magnetic reconnection plays important role in the magnetotail transfer and in the tail-aligned fast plasma flows in the magnetotail. In our previous study, the magnetic reconnection in the ideal harris current sheet has been studied. Recent satellite observations have revealed the importance of cross-tail component of fast flows. The aim of the present work is to study the effect of shear field in three dimensional magnetic reconnection processes.