On Triggering of Magnetic Reconnection

Masaki FUJIMOTO^{#+}, Kenya SHIMIZU, Iku SHINOHARA Japan Aerospace Exploration Agency, Japan [#]Corresponding author: fujimoto@stp.isas.jaxa.jp +Presenter

Bimodal approach to the problem of triggering of magnetic reconnection has been performed. One is to utilize full-particle simulations to understand how magnetic reconnection in a thick current sheet, whose half-thickness is more than a few times the relevant ion inertial length, is triggered. The other is to perform high-accuracy MHD simulations to see how an interaction between a MHD flow and a current sheet leads to magnetic reconnection thereof. In this talk, highlights of the results and their implications will be presented.