

**R008-01**

**C 会場 : 11/26 AM1 (9:15-10:45)**

**9:15~9:30:00**

## **磁気リコネクションアウトフローの電流シート環境依存性**

#近藤 光志<sup>1)</sup>

(<sup>1</sup> 愛媛大宇宙進化研究センター

## **Dependence of magnetic reconnection outflow on the current sheet condition**

#Koji Kondoh<sup>1)</sup>

(<sup>1</sup> Research Center for Space and Cosmic Evolution, Ehime University, Japan

Magnetic reconnection is a significantly powerful engine that converts magnetic field energy into plasma kinetic energy and thermal energy in a variety of environments, such as the solar atmosphere, planetary magnetospheres, and black hole magnetospheres. The energy conversion efficiency in these diverse environments is primarily determined by the current sheet environment.

”The current sheet environment” refers to the plasma and magnetic field environments on both sides of the current sheet, specifically the magnetic field strength ratio and plasma temperature/density ratio. First, we show the dependence of the magnetic reconnection outflow on the magnetic field strength ratio in isothermal initial equilibrium, and then we show its dependence on the initial density ratio with the fixed magnetic field strength ratio. We particularly focus on the time evolution of the reconnection outflow in the fan and plasmoid regions.