

S001-P07

ポスター 3 : 11/6 AM1/AM2 (9:00-12:30)

シア磁場を考慮した非対称磁気リコネクションの三次元効果

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Three dimensional MHD simulation of the asymmetric magnetic reconnection with the shear field component

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Using two and three-dimensional MHD simulations, the asymmetric magnetic reconnection structures are examined. The reconnection x-line with the finite length causes three-dimensional in-flows, and these flows weaken the evolution of the magnetic reconnection. However, the reconnection rate in the self-similar phase reaches almost the same level as that in the two-dimensional simulations. In addition, the asymmetric magnetic reconnections with this finite x-line in the shear field case produce the sheared plasmoids. This result means that the actual in-situ probes may cross only one side of a pair.