



Oscillation of Ca H Jet Emission Observed by SOT: Viscous Effects

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We address the oscillation in chromospheric jet observed by Hinode/SOT and other X-ray jet observed by XRT telescope. Our aim is to investigate an incompressible X-point and the dynamical processes that occur during the magnetic reconnection. The viscous effect is considered on magnetic reconnection in closed line-tied magnetic X-shape nulls.

We perform an MHD simulation in 2D by solving the viscoresistive MHD equations with the tracing of velocity and magnetic field, and it found qualitative agreement oscillatory (or non-oscillatory) behavior with the Hinode observations. These results suggest that the viscous effect may be an important role in oscillation of magnetic reconnection.

Key words: MHD oscillation– Sun: chromosphere- Sun: corona- reconnection jet.