

## Acceleration mechanism of coronal jets

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A coronal jet is a jet phenomenon in solar corona, and a flow of hot plasma ( $>1$  MK) through a magnetic flux tube. The phenomenon has been investigated from YOHKOH era (1990's), and there is no doubt that a coronal jet is produced by the energy released by magnetic reconnection based on numerous observing and theoretical studies. One of the remained puzzles of coronal jets is the acceleration mechanism of hot plasma. Shibata et al. (1992), which reported the discovery of coronal jets, already predicted that the hot plasma flow in a corona jet is a reconnection outflow (magnetic driven flow) or/and a flow by chromospheric evaporation (gas-pressure driven flow). The high spatial and cadence X-ray images obtained with the X-Ray Telescope aboard Hinode satellite revealed that both flows exist in a coronal jet (Cirtain et al. 2007). Nevertheless, it is not clear which flow dominates a coronal jet. In this paper, I review recent results related with the puzzle, and discuss what is a key physics for the acceleration mechanism in a coronal jet.

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