

## Statistical Analysis of the Reconnection Rate in Solar Flares

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Magnetic reconnection is generally believed to play an important role in energy release process in solar flares. The reconnection rate, defined as the inflow velocity normalized by Alfvén velocity, is an important value in the reconnection process, yet what determines the reconnection rate is still a problem. In this talk, we report a statistical analysis of flares observed with the Soft X-ray Telescope (SXT) aboard the Yohkoh satellite. We measure the spatial and temporal scales and the magnetic field of 77 flares in the year of 2000 and estimate the reconnection rate of the flares from these parameters. The value of the reconnection rate is found to be  $10^{-3}$  -  $10^{-2}$ . This value is within one order of magnitude from the theoretical maximum in the Petschek model, although the dependence of the reconnection rate on the magnetic Reynolds number seems to be stronger than that predicted by the Petschek model.