



Small-scale magnetic reconnection in high resolution observations

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Magnetic reconnection is a very important process of energy release in Astrophysics. It is widely accepted that the energy on the Sun is released by the magnetic reconnection. However, observational evidence has been relatively rare and typical only partial. Mainly using high temporal and spatial resolution $H\alpha$ observations from the NVST, and supplemented by UV, EUV images and vector magnetograms observed by SDO, the X-ray data from Hinode and GOES, the process of the magnetic reconnection in the active regions is studied in detail. An unprecedented comprehensive set of observational evidences are detected, including reconnection inflows and outflows, current sheet, two hot cusp-shaped structures, newly formed magnetic loops, and shrinking of the loops, and so on. The estimated reconnection rate is consistent with the values of the theoretical expectations. In addition, the change of magnetic structures is supported by the change in the structure of the extrapolated nonlinear force-free field and by a magnetohydrodynamic simulation.

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References

The references related to your talks will be used to write summary paper in RMPP (Rev. Mod. Plasma Phys.). So do not miss important papers related to your talk.

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Note: Abstract should be in 1 page.