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E-POSTER: Doppler Shifts in Active Region with IRIS

The active regions are mostly associated with magnetic regions that can be comprised of strong positive or negative polarity regions, the intermediate corridor regions or the neighbouring regions with field strengths lying in between those of active and quiet sun regions. It has been seen from earlier studies using C IV emission line (Klimchuk 1987) that the strong field regions are predominantly red-shifted whereas the weak corridors and weak surrounding regions are less strongly red-shifted. The high resolution observations of the solar active regions using the Interface Region Imaging Spectrometer (IRIS), Atmospheric Imaging Assembly (AIA) and Helioseismic and Magnetic Imager (HMI) data help us to investigate the LOS velocities and their dependence on the LOS magnetic fields in greater details. Here we have used IRIS observations in spectral lines of C II and Si IV in addition to AIA 1600 and 171 Å channel images and magnetic field measurements using HMI to study the Doppler shift patterns in about 10 active regions.