



The evolution of a small complex active region AR 12550 observed by the GST

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The 1.6m Goode Solar Telescope (GST: formerly NST) at Big Bear Solar Observatory (BBSO) provides us with unprecedented high-resolution data of the Sun since 2009. On 2016 May 30, we observed a small complex active region AR 12550 using the GST equipped with the He I D3 filter, the photospheric broadband filter (G-band), and Near IR imaging spectrograph (NIRIS). This active region showed a small loop eruption in He I D3 images associated with several B class brightenings from 17:00 UT to 18:00 UT and dynamic variations of photospheric features in G-band and NIRIS images. Additionally, we examined the SDO data and found several brightenings and loop activities in the higher temperature plasmas. Interestingly, the loop activities appeared as dark features in D3 images and did as bright ones in SDO data. In order to interpret both data, we performed DEM analysis using SDO AIA data. In this presentation, we will describe the whole evolution of the AR 12550 and give the observation results.