[초IT-01] The Sun Observed by Fast Imaging Solar Spectrograph of the 1.6 meter New Solar Telescope at Big Bear

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With the aim of resolving important physical problems in the chromosphere of the Sun, we developed the Fast Imaging Solar Spectrograph for several years, and at last successfully installed it in the Coude room of the 1.6 meter New Solar Telescope at Big Bear in 2010 May. The instrument is an Echelle spectrograph with imaging capability based on slit scan, and can record two spectral bands (e.g., H alpha band and Ca II 8542 band) simultaneously. The early runs of the instrument produced data of high quality that are suited for the study of quiet Sun, filaments on the disk, prominences outside the limb, active regions and sunspots. We are ready to do good solar sciences using our own instrument, and will be able to do best sciences with the coming improvement of spatial resolution.