

[구SS-11] Improvement of FISS capability and recent FISS observations in BBSO

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Since 2010, we have improved the Fast Imaging Solar Spectrograph (FISS) and observed the Sun. From the early observations we noticed two instrumental problems: poorer spatial resolution due to chromatic aberration and lower light level in the Ca II band. We tried to overcome these problems in two ways. First, we updated the relay optics. With the new one, we don't find any noticeable chromatic aberration between Ha and CaII and as a result can obtain the high resolution data in Ca II as well. Second, we replaced mirrors and the grating. This resulted in the increase of light level by a factor of up to 2.5, and hence in the high S/N ratio. The images constructed from the recentest observations indicate that the performance of the FISS is now much closer to our original intention than at the beginning.

[구SS-12] KSRBL Data Calibration and Note for Users

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The Korean Solar Radio Burst Locator (KSRBL) is a solar radio spectrograph observing the frequency range between 0.245–18 GHz with the capability of locating the wideband gyrosynchrotron bursts. Its calibration process consists of antenna calibration, flux calibration, and demodulation. Antenna calibration is to determine the position, the width, and the peak value of the beam, flux calibration is to determine the conversion factor between the measured unit to the Solar Flux Unit (SFU), and demodulation is to determine the burst position and remove the modulation pattern. We introduce the current calibration software and some information that potential users may concern.