

[구SS-09] The Optical Characteristics of the Soft X-Ray Telescope Aboard Yohkoh : The On- and Off-Axis Point Spread Function

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The point spread function (PSF) of an optical system is in general defined as a two-dimensional intensity distribution which results from a single point source at infinity. It is an important key for the evaluation of the optical performance of an astronomical telescope. The PSFs of the soft X-ray telescope (SXT) aboard Yohkoh were measured in a wide range of the field-of-view under the in-flight configuration at White Sands Missile Range prior to launching the satellite. It has been known that the SXT PSF has a sharp peak at the core and the intensity drops very fast as it goes distant from the center. Due to the combination of this sharp peak at the PSF core and the effect of undersampling by a large pixel size, a carefully designed method is requested in the examination of the PSF data. The pattern of the SXT PSF is determined by the fitting of a mathematical functional form to the pre-launch experimental data. The elliptical Moffat function has been adopted for the evaluation of the SXT PSF. It is revealed from our study that the SXT PSF shows a peculiar characteristics, and thus a careful consideration on the undersampling effect and also a proper choice of statistics are necessary for the determination of the best fit function of the PSF. Details on the on- and off-axis SXT PSF in the field-of-view will be introduced and discussed in our presentation.

[우SS-10] Current Status of KASI Solar Radio Observing System

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Korea Astronomy and Space Science Institute (KASI) operates two solar radio observing facilities, the Korean station of the e-CALLISTO and the Korean Solar Radio Burst Locator (KSRBL). The e-CALLISTO station had suffered from tracking problem for past several years. Since 2011, KASI has developed a new tracking system, and recently the antenna has regained the its sun-tracking capability and full day-time coverage. The KSRBL also suffered from the control computer breakdown last year. After one year of operational gap, the KSRBL restored its normal daily observation. We also expanded the data server storage capacity, to store the full original data of 25 ms integration time and 0.25 MHz frequency resolution, amounting to about 80 GB per day.