

[ID25] Characteristics of the Seoul National University 4k x 4k CCD
Camera at Maidanak Observatory in Uzbekistan

Jongwan Ko¹, Myungshin Im¹, Yunseok Cho¹, and Changsu Choi¹

¹*Astronomy Program, FPRD, Department of Physics and Astronomy,
Seoul National University*

We have put into operation the 600-627 4-port 4k x 4k CCD camera at the Maidanak observatory located at Uzbekistan. Here we present the characteristics and performance of the new CCD camera using our test observing data obtained in August and October last year. We measured the bias level, the dark current, the readout noise, and the gain. We also checked temporal variation of bias levels, daily variation of twilight sky flat field images, and the CCD linearity. Finally, we could confirm fringe patterns at the end of optical bands.

[ID26] Integrated optical model for in orbit end-to-end performance
simulation for GOCI

Sun-Jeong Ham¹, Jae Min Lee¹, Seonghui Kim^{2,3}, Heong-Sik Youn², Gm Sil
Kang^{2,3}, Sug-Whan Kim¹

¹*SOL, Dept. of Astronomy and Space Science, Yonsei University,*

²*Korea Aerospace Research Institute*

³*Astrium, France*

GOCI(Geostationary Ocean Color Imager) is one of the two COMS payloads that KARI and Astrium are developing and planned to be launched at around 2009. The primary objectives of the payload include observation of the coastal water environment such as red tide around Korea peninsular. We report the current progress in development of the integrated optical model as one of the key analysis tools for the in-orbit imaging and radiometric performance verification for GOCI. The application of the model for measurement simulation for the water leaving radiance demonstrates, though it may be in the first order approximation, that GOCI is capable of monitoring the red tide infection. For particular details, we made an analysis of red tide evolution range from the southern sea to the eastern sea. The model concept, computational details, and simulation results together with the implications are presented.