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[ID01] Measurement of high-energy cosmic rays with the silicon charge detector in first two flights of the CREAM balloon at Antarctica

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Measurement of the elemental composition and the individual energy spectra of cosmic rays in the energy range between 1012 and 1015 eV is the goal of the CREAM (Cosmic Ray Energetics And Mass) mission which is a balloon-borne experiment at Antarctica. It has been launched twice, first in December 2004 and again in December 2005. A total duration of 70 days was achieved during the two flights. Two sets of silicon detectors for the charge measurement were constructed, one for each flight, and successfully operated together with other instruments in the payload for energy measurement. We discuss the performance of the detector during the flights and present the initial results.

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[ID02] Development of Fast Imaging Solar Spectrograph for the New Solar Telescope at Big Bear Solar Observatory: Concepts and Optical Design

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Big Bear Solar Observatory is carrying out a project of constructing a new generation solar telescope called the 1.6 meter New Solar Telescope (NST), in cooperation with Korea Astronomy & Space Science Institute(KASI). Solar astronomy group at Seoul National University, and Sola and Space Weather Research Group at KASI are contributing a Fast Imaging Solar Spectrograph(FISS) to this project which will serve as one of the three major post-focus instruments of the telescope. We will introduce the basic concepts of FISS, the current status of the optical design, and the construction plan.