performed using URAN and SYNTHE programs. These spectra allow us to determine the effective temperatures, surface gravities, microturbulent velocities and, chemical abundances. Bond et al. (2008) found chemical abundance for 11 elements, but using the Spectrum synthesis method we have so far determine about 30 elements. We have derived iron metallicity [FeI/H] = -0.42±0.03, [FeII/H] = -0.43±0.012, and surface gravity, log g = 4.48, in good agreement with values from previous investigation. This research was supported by the Korea Astronomy and Space Science Institute under the R&D program(Project No. 2015-1-320-18) supervised by the Ministry of Science, ICT and Future Planning.

[구 ST-11] Bright stars observed by FIMS/SPEAR

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In this paper, we present a catalogue of the spectra of bright stars observed during the sky survey using the Far-Ultraviolet Imaging Spectrograph (FIMS), which was designed primarily to observe diffuse emissions. By carefully eliminating the contamination from the diffuse background, we obtain the spectra of 70 bright stars observed for the first time with a spectral resolution of 2-3Å over the wavelength of 1370-1710 Å. The far-ultraviolet spectra of an additional 139 stars are also extracted with a better spectral resolution and/or higher reliability than those of the previous observations. The stellar spectral type of the stars presented in the catalogue spans from O9 to A3. The method of spectral extraction of the bright stars is validated by comparing the spectra of 323 stars with those of the International Ultraviolet Explorer (IUE) observations.

태양 및 우주환경

[박 SS-01] Steady-State Solution for Solar Wind Electrons by Spontaneous Emissions

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The solar wind electrons are made of three or four distinct components, which are core Maxwellian background, isotropic halo, and super-halo (and sometimes, highly field-aligned strahl component which can be considered as a fourth element). We put forth a steady-state model for the solar wind electrons by considering both the steady-state particle and wave kinetic equations. Since the steady-state solar wind electron VDFs and the steady-state wave fluctuation spectrum are related to each other, we also investigate the complete fluctuation spectra in the whistler and Langmuir frequency ranges by considering halo- and superhalo-like model electron VDFs. It is found that the energetic electrons make important contributions to the total emission spectrum. Based on this, we complete the steady-state model by considering both the whistler and Langmuir fluctuations. In particular, the Langmuir fluctuation plays an important role in the formation and maintenance of nonthermal electrons.

[구 SS-02] Comparison of Empirical Magnetopause Location Models with Geosynchronous Satellite Data

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In this study, we identify 307 the geosynchronous magnetopause crossing (GMC) using geosynchronous satellite observation data from 1996 to 2010 as well as make an observational test of magnetopause location models using the identified events. For this, we consider three models: Petrinec and Russell (1996), Shue et al. (1998), and Lin et al. (2010). To evaluate the models, we estimate a Probability of Detection (PoD) and a Critical Success Index (CSI) as a function of year. To examine the effect of solar cycle phase, we consider three different time periods: (1) ascending phase (1996-1999), (2) maximum phase (2000-2002), and (3) descending phase (2003-2008). Major results from this study are as follows. First, the PoD values of all models range from 0.6 to 1.0 for the most of years. Second, the PoD values of Lin et al. (2010) are noticeably higher than those of the other models. Third, the CSI values of all models range from 0.3