

측광 자료에 대하여 Period04를 활용한 power spectrum 분석을 통해 변광 주기를 찾았다. 이 분석을 통해 2개의 변광 주기  $f_1=7.127\text{c/d}$ ,  $f_2=1.995\text{c/d}$ 를 찾았다. 2개의 주기 가운데  $f_1$ 은 fundamental mode로서 Gregor(2009)가 처음으로 제시한 주기 0.1389 day와 일치하는 것이며,  $f_2$ 는 이 연구에서 새롭게 찾은 주기로서 non-radial mode에 해당되는 것으로 해석하였다. 분석 결과를 바탕으로 HD5371의 변광 특성과 물리적 성질을 논하였다. HD5371의 완전한 주기 해를 얻기 위한 장기 관측을 수행 중에 있다.

and H  $\beta$ .

### [표 ST-06] Comparison of multi-planetary systems including hot-Super Earth with and without exo-Jupiter

Beom Kyu Choi, Tae Seog Yoon  
*Department of Astronomy and Atmospheric Sciences, Kyungpook National University*

Almost hot-Super Earths ( $R_p \sim 1$  to  $4R_{\text{earth}}$  orbital period  $< 100$  days) are around Sun-like stars. But our solar system does not have hot-Super Earth. Andre et al. 2015 has explained this phenomenon by that Jupiter blocks migration of super earth. We have found a multi-planetary system KOI-94 with exo-Jupiter and hot-Super Earth from NASA exoplanet archive data (<http://exoplanetarchive.ipac.caltech.edu>). In this study, within multi-planetary systems including hot-Super Earth, we compared those with and without exo-Jupiter using their host star and exoplanet parameters, such as metallicity [Fe/H],  $T_{\text{eff}}$  and  $R_*/R_p$ .

### [표 ST-07] O VI Raman spectroscopy of the S-type symbiotic star V455 Sco

Jeong-Eun Heo<sup>1</sup>, Hee-Won Lee<sup>1</sup>, Ho-Gyu Lee<sup>2</sup>  
<sup>1</sup>*Department of Astronomy and Space Science, Sejong University,*  
<sup>2</sup>*Korea Astronomy and Space Science Institute*

We present the high-resolution spectrum of the S-type symbiotic star V455 Sco obtained with the Dupont telescope in 2014 June. We note that the Raman-scattered O VI  $\lambda 1032$  at  $6825 \text{ \AA}$  exhibits a triple-peak profile. Adopting an accretion disk model with an additional contribution from a collimated bipolar outflow, we attempt to fit the profile. We propose that the blue and central peaks are formed via Raman-scattering of O VI line photons from the accretion flow and that the bipolar flow is responsible for the remaining red peak. It is also noted that V455 Sco exhibits the Raman-scattered He II features blueward of H  $\alpha$