of the models and the pipelines used for the baryon acoustic oscillation (BAO) and full shape clustering analysis. Our study is relevant for the final eBOSS DR16 'consensus cosmology', as the systematic error budget is informed by testing the results of analyses against these high-resolution mocks. In addition, it is also useful for future large-volume surveys, since similar mock-making techniques and systematic corrections can be readily extended to model for instance the DESI galaxy sample.

[포 CD-02] Model-independent reconstruction of the equation of state of dark energy

Seung-gyu Hwang\(^1\), Benjamin L’Huillier\(^1\)
\(^1\)Department of Astronomy, Yonsei University

While Dark Energy is one of the explanations for the accelerating expansion of the Universe, its nature remains a mystery. The standard (flat) Λ CDM model is consistent with cosmological observations: type Ia Supernova, BAO, CMB, and so on. However, the analysis of observations assuming a model, model-dependent approach, is likely to bias the results towards the assumed model.

In this poster, I will introduce model-independent approach with Gaussian process and the application of Gaussian process regression to reconstruct the equation of state of dark energy.

[포 SS-01] 2019 Total Solar Eclipse Expedition of KASI

Su-Chan Bong\(^1\), Heesu Yang\(^1\), Jae-Ok Lee\(^1\), Jinhyun Kim\(^1\), Young-Beom Jeon\(^1\), Bi-Ho Jang\(^1\), Jungjoo Seough\(^1\), Young-Deuk Park\(^1\)
\(^1\)Korea Astronomy and Space Science Institute, Daejeon, Korea

Korea Astronomy and Space Science Institute (KASI) is developing a coronagraph to measure the coronal electron density, temperature, and speed utilizing spectral change of the K-corona around 400 nm. However, near UV light is more affected by atmospheric effect on the ground than visible light. For the total solar eclipse on July 2 2019, KASI organized an expedition team to test the possibility of the similar measurement scheme in the visible light. The observation site was in Las Flores, San Juan, Argentina. We built an imaging spectrograph using micro lenslet array and grism, named Coronal Integral Field Spectrograph (CorIFS). In addition, images of white light corona, wide field background, and all sky were taken with various camera settings. We present the preliminary results of the expedition.

[포 SS-02] 30cm Wide-Field Solar Spectro-Imaging Telescope (Post SOFT)

Heesu Yang, Seonghwan Choi, Eun-Kyung Lim, Jihun Kim, Jongyeob Park, Ji-Hye Baek, Kyung-Suk Cho, Yeon-Han Kim, Bi-Ho Jang, Ryun-Young Kwon, Rok-Soon Kim, Sujin Kim, Yeong-Deuk Park, Suchan Bong, Jungjoo Seough, Young-Sil Kwak
Korea Astronomy and Space Science Institute

우주개발과 활용이 주요 화두가 된 현대에 보다 빠르고 정확한 우주환경 예보는 전략적으로 매우 중요하다. 이에 우리는 광범위한대양형성과광양혈서(ALlKirTelescope)을 활용한 태양전면 영상분광각시계를 구성하고자 한다. 전체실세계 30cm경구의 광학계에 고속영상분광기를 결합하여 태양전면의 분광영상 을 얻기 위한 총영상량디지털상태와 5분의 시간대상을 획득한 다. 태양전면의 속도를 스팬하는 방식으로 H alpha와 Ca II 854.2nm선의 분광정보를 획득하는데 틱트드리미를 이용하여 1차적인 시상보정과 함께 스팬보정을 함께 구현함으로써 1차적 구조를 단순화하고, 2) 빠른 스팬이 가능하다. PSOFT로 얻은 태양전면 채층분광영상 데이타는 정밀한 우주환경 예보에 필요한 플레어나 광학분광의 발생속도 정보를 제공할 뿐 아니라 태양강도격에서 발생하는 자기재인원, 가동 등에 대한 통계적 연구자료를 제공할 것으로 기대한다.

[포 SA-01] Photoionization and Raman-scattered He II features in young planetary nebulae

Mi-Kyung Kim\(^1\), Hee-Won Lee\(^1\)
\(^1\)Department of Physics, Sejong University, Seoul, 05006, Korea

Raman-scattered He II features are known to be present in several young planetary nebulae (PNe) including NGC 7027, NCG 6302, IC 5117 and NGC 6790. These features provide a new spectroscopic window to probe both thick neutral regions and far UV regions near Lyman series. We carry out