Telecommunity)를 구성하여 WRC 의제에 대응하고 있다.

지난 2015년 7월 27일-8월 1일에는 WRC의제에 대한 아태지역의 공동제안서(PACP)를 작성하기 위한 최종 회의(APG-15 5차회의)가 서울 힐튼호텔에서 개최되었다. 과학업무 의제의 경우, 5개 의제에 대한 공동제안서가 작성되었으며, 그 결과는 다음과 같다.

1) 7145-7250 ㎒ 대역의 지구탐사위성(지구대우주)업무의 1순위 분배 지지, 2) 9,200~9,300㎒ 및 9,900~10,400㎒대역의 지구탐사위성업무의 신규 SAR용 1순위 분배 지지, 3) 우주선 근거리통신용 410-420㎒ 대역 관련 거리제한 규정 삭제 지지, 4) 윤초 삭제 지지, 5) 나노 위성 및 피코 위성의 규정개정 연구를 위한 차기 WRC회의 의제 수행 지지를 들 수 있다.

따라서 본 발표에서는 7월에 개최된 APG-15 5차회의의 주요 결과를 소개하고, WRC-15회의에 대비하여 국내 전파천문업무 보호를 위한 주요 이슈에 대해 소개를 하고자 한다.

[포 AT-02] A diagram of the new TRAO observation system

Hyunwoo Kang, Changhoon Lee, Jae Hoon Jung, Young Sik Kim, and Il-Gyo, Jeong
Korea Astronomy & Space Science Institute (KASI)

Taeduk Radio Astronomy Observatory (TRAO) is about to jump with new system - 16 beams array receiver with low noise temperature, new observation system on VxWorks OS, and FX spectrometer for 32 input signals. We serve a quite obvious diagram to understand new TRAO observation system. This diagram will be quick guide for manager and observer.

[포 AT-03] Electronics Design of the NISS onboard NEXTSat-1

Dae-Hee Lee, NISS Team
Korea Astronomy & Space Science Institute, Daejeon 305-348, Korea

NISS is a unique spaceborne imaging spectrometer (R = 20) onboard the Korea's next micro-satellite NEXTSat-1 to investigate the star formation history of Universe in near infrared wavelength region (0.9 - 3.8 um), with a customized H1RG IR sensor(Jeong 2014). In this paper, we will introduce the compact electronics system (Fig. 1) as well as the novel readout method to reduce the 1/f noise for NISS.

[포 AT-04] CAGMon: Correlation-based Glitch Monitor for Gravitational Wave Detection

John J. Oh[1], Young-Min Kim[2], Edwin Son[1], Sang Hoon Oh[1], Hwansun Kim[1], Hyoungseok Chu[1], Florent Robinet[3], and Kazuhiro Hayama[4]
[1]*National Institute for Mathematical Sciences, Daejeon, Korea*
[2]*Pusan National University, Busan, Korea*
[3]*Laboratoire de l'Accelerateur Lineaire, Universite Paris-Sud 11, France*
[4]*Osaka City University, Japan*

We study the possibility of new approach for identifying instrumental noise artifacts and sources of gravitational wave (GW) data such as LIGO and CLIO using various correlation analyses.To improve the quality of data for the GW signal search, the instrumental noises should be reduced in an appropriate way. Furthermore, it is important to understand the correlation between auxiliary channels of the GW detector. In this study, we investigate the possible way of identifying glitch triggers by generating time- frequency-correlation (TFC) maps between the related channels and compare the result to the current conventional schemes.

[포 AT-05] Event Trigger Generator for Gravitational-Wave Data based on Hilbert-Huang Transform

Edwin J. Son[1], Hyoungseok Chu[1], Young-Min Kim[2], Hwansun Kim[1], John J. Oh[1], Sang Hoon Oh[1], Lindy Blackburn[3], Kazuhiro Hayama[4], and Florent Robinet[5]
[1]*National Institute for Mathematical Sciences, South Korea,*
[2]*Pusan National University, South Korea,*
[3]*Harvard-Smithsonian Center for Astrophysics, MA, United States,*
[4]*Osaka City University, Japan,*
[5]*Laboratoire de l'Accélérateur Linéaire, Université Paris-Sud 11, France*

The Hilbert-Huang Transform (HHT) is composed of the Empirical Mode Decomposition (EMD) and the Hilbert Spectral Analysis (HSA). The EMD decomposes any time series data into a small number of components called the Intrinsic Mode Functions (IMFs), compared to the Discrete Fourier Transform which decomposes a data into a large number of harmonic functions. Each IMF has varying amplitude and frequency with respect to time, which can be obtained by HSA. The time resolution of the modes in HHT is the same as that of the given time series, while in the Wavelet Transform, Constant Q Transform and Short-Time Fourier Transform, there is a tradeoff