Session Schedule

Oct. 24, 2016 (Mon)

10:00-10:30 Opening Ceremony

Ceremony Chair : WI Gwansik (KSWC, Korea)

Opening Address

HAN Wonyong (President, Korea Space Science Society, Korea)

Welcome Speech

CHOI Young-hae (Director General, Radio Policy Bureau, Ministry of Science ICT and Future Planning, Korea)

Congratulatory Address

Kazumasa Taira (General Director, AERI NICT, Japan)

10:30-11:50 Special Session 1 : SWx Policy & Strategy

Chair : YOON Kichang (KSWC, Korea)

S 1 - 1 KSWC Space Weather services & future plan

WI Gwansik (KSWC, Korea)

S 1 - 2 Japanese current status for space weather

Mamoru Ishii (NICT, Japan)

S 1 - 3 Development of Operational Space Environment Technology System

Bingxian Luo (NSSC, China)

S 1 - 4 Bureau of Meteorology's Space Weather Services

Zahra bouya (BOM/SWS, Australia)

11:50-12:00 Photo Session

12:00-13:30 Lunch Time

13:30-15:00 Special Session 2

Chair : HAN Jinwook (KSWC, Korea)

Keynote 1 International Organization Activities on Space Weather

Terrance Onsager (ISES/WMO)

S 2 - 1	**Mexican Space Weather Service** Ernesto Aguilar-Rodriguez (SCIESMEX, Mexico)
S 2 - 2	**Space Weather Programme in Malaysia** Farahana Kamarudin (National Space Agency of Malaysia, Malaysia)
S 2 - 3	**Belgian Space Weather sevices by SIDC** Jasmina Magdalenic (Royal Observatory of Belgium, Belgium)
S 2 - 4	**Space Weather Service and Products in Taiwan** Jann-Yenq Liu (National Central University, Taiwan)
15:00-15:30	**Coffee Break**
15:30-18:00	**Special Session 3** Chair : LEE Dong-Hun (KHU, Korea) / MOON Yong-Jae (KHU, Korea)
S 3 - 1	**Space Weather Information and Forecast Services in Indonesia** Clara Yatini (Space Science Center LAPAN, Indonesia)
S 3 - 2	**UK space weather & L5 mission** Suzzy Bingham (MET Office, UK)
S 3 - 3	**United States Space Weather Strategy and Action Plan** Terrance Onsager (SWPC, USA)
S 3 - 4	**Overview of the Korea Meteorological Administration(KMA)'s Space Weather Service and R&D Program** KIM Jiyoung (Korea Meteorological Administration, Korea)
S 3 - 5	**KASI Space Weather** CHO kyungsuk (KASI, Korea)
S 3 - 6	**Observations for the polar space environment at Korea Polar Research Institute (KOPRI)** JEE Geonhwa (Korea Polar Research Institute, Korea)
S 3 - 7	**RAL Space and an Introduction to the Worldwide IPS Stations (WIPSS) Network** Mario M. Bisi (STFC RAL Space, UK)
S 3 - 8	**Introduction of TEIN and TEIN*CC** Patch Lee (Trans-Eurasia Information Network, Korea)
18:30-	**Banquet**

Oct. 25, 2016 (Tue)

09:00-11:00 General Session 1 : Solar Physics & Interplanetary Space

Chair : Bernard Jackson (UCSD, USA) /
Mario M. Bisi (STFC RAL Space, UK)

G 1 - 1 **Radio observations and Space Weather Research**
Jasmina Magdalenic (Royal Observatory of Belgium, Belgium)

G 1 - 2 **Space Weather Study Using Interplanetary Scintillation Observations at ISEE**
Munetosh Tokumaru (ISEE Nagoya University, Japan)

G 1 - 3 **Interplanetary Scintillation and Space Weather Forecast**
P. K. Manoharan (NCRA, India)

G 1 - 4 **World Interplanetary Scintillation Systems (WIPSS) Use of the UCSC IPS Tomography Program for Space Weather Forecasting**
Bernard Jackson (UCSD, USA)

G 1 - 5 **Recent Improvements of the WSA-ENLIL Cone Modeling System and Using IPS Data for Opeational Space Weather Predictions**
Dusan Odstrcil (NASA-GSFC/GMU, USA)

G 1 - 6 **Contributions of the Nobeyama Radioheliograph to space-weather science**
Satoshi Masuda (Nagoya University, Japan)

G 1 - 7 **Accuracy Issues in Space Weather MHD Models**
LEE Dong-Hun (Kyung Hee University, Korea)

G 1 - 8 **Deflected propagation of coronal mass ejections from the Sun to 1 AU**
Yuming Wang (USTC, China)

11:00-12:00 Poster Session

12:00-13:30 Lunch Time

13:30-15:00 General Session 2 : Solar Physics & Interplanetary Space

Chair : Cho Kyungsuk (KASI, Korea)

G 2 - 1 **Project for Solar-Terrestrial Environment Prediction (PSTEP) in Japan**
Kanya Kusano (Nagoya University, Japan)

G 2 - 2 **On Predicting Solar Activity**
CHAE Jongchul (Seoul National University, Korea)

G 2 - 3	**Lessons Learned in transitioning CME auto-detection and interplanetary propagation tools into operational services** Siqing Liu (NSSC, China)
G 2 - 4	**Prospects for numerical solar activity forecasting** Huaning Wang (NAO, China)
G 2 - 5	**R&D for solar activity forecast in NICT** Yuki Kubo (NICT, Japan)
G 2 - 6	**Probing the maximum coronal mass ejection speed index as a potential indicator of geoeffectiveness of solar activity** Vasyl Yurchyshyn (NJIT Big Bear Solar Observatory, USA)

15:00-15:15	**Coffee Break**
15:15-16:15	**General Session 3 : Ionosphere** Chair : RYU Kwangsun (KAIST, Korea)

G 3 - 1	**Prediction of plasma bubble occurrence using the atmosphere-ionosphere coupled model GAIA** Hiroyuki Shinagawa (NICT, Japan)
G 3 - 2	**Data Assimilation and Adjusted Spherical Harmonic Model of VTEC Map over Thailand** Somjai Klinngam (KMITL, Thailand)
G 3 - 3	**Global and regional ionospheric modeling to understand equatorial plasma bubble** Tatsuhiro Yokoyama (NICT, Japan)
G 3 - 4	**Recent progress of NICT ionospheric observations in Japan** Takuya Tsugawa (NICT, Japan)

16:15-17:00	**Trip to Sanghyowon Botanical Garden**
17:00-17:30	**Sanghyowon Botanical Garden Tour**
17:30-19:30	**Dinner**
19:30-20:30	**Back to Shine Ville Resort**

Oct. 26, 2016 (Wed)

09:00-11:00 General Session 4 : Ionosphere

Chair : KIM Yongha (Chungnam University, Korea) / KWAK Young-sil (KASI, Korea)

G 4 - 1 **Space weather of the ionospheric S4 scintillation**
Jann-Yenq Liu (National Central University, Taiwan)

G 4 - 2 **Tomographic Analysis of Ionosphere and Plasmasphere**
KIM Yongha (Chungnam National University, Korea)

G 4 - 3 **KSWC action for observation and research of ionosphere**
MUN Juncheol (KSWC, Korea)

G 4 - 4 **Ionospheric regional forecasting using statistical method for GPS application**
Mardina Abdullah (ANGKASA, Malaysia)

G 4 - 5 **Development of Global Ionospheric Electron Density Monitoring System Using FORMOSAT-7/COSMIC-2**
Charles Lin (National Central University, Taiwan)

G 4 - 6 **Ionospheric and magnetic signatures of the magnetic storm on March 2015 observed in the Southeast Asian region**
Minh Le Hyu (HIG, Vietnam)

G 4 - 7 **F2 region response to meteorological phenomena and geomagnetic disturbances**
A. K. Upadhayaya (CSIR-NPL, India)

G 4 - 8 **Space Weather monitoring by GNSS Radio Occultation Technique**
Xinan Yue (IGGCAS, China)

11:00-12:00 Poster Session

12:00-13:30 Lunch Time

13:30-15:00 General Session 5 : Magnetosphere

Chair : Hwang Junga (KASI, Korea)

Keynote 2 **Current state of Radiation belt Modeling: Successes and Challenges**
Reiner Friedel (Los Alamos, USA)

Keynote 3 **NASA Space Weather**
Alex Young (NASA, USA)

G 5 - 1	**Magnetosphere/Ionosphere study with formation flying nanosats** LEE Jaejin (KASI, Korea)
G 5 - 2	**Space weather effects on meteorological and atmospheric electrical parameters** Sergey Smirnov (IKIR, Russia)
15:00-15:30	**Coffee Break**
15:30-17:00	**General Session 6 : Magnetosphere** Chair : LEE Daeyoung (Chungbuk University, Korea)
G 6 - 1	**Support Vector Machine combined with Distance Correlation learning for Dst forecasting during intense geomagnetic storms** Jianyong Lu (Nanjing University, China)
G 6 - 2	**Magnetosphere Research Activity in NICT: Observation and Modeling** Aoi Nakamizo (NICT, Japan)
G 6 - 3	**Relativistic electron flux forecast at geostationary orbit using multiple linear regression model** HWANG Junga (KASI, Korea)
G 6 - 4	**Forecasting Geomagnetic Disturbances at NOAA with Michigan's Geospace Model** Howard Singer (SWPC, USA)
G 6 - 5	**Establishment of Abdus Salam Geomagnetic Observatory, Pakistan: From Site Selection to INTERMAGNET Certification** Murtaza Ghulam (SUPARCO, Pakistan)
G 6 - 6	**NICT's Geospace Monitoring and Forecasting** Tsutomu Nagatsuma (NICT, Japan)
17:00-18:00	**Break**
18:00-	**Dinner (BBQ)**

Oct. 27, 2016 (Thur)

09:00-09:30 **The plan of Next AOSWA**

Mamoru Ishii (NICT, Japan)

Summary of AOSWA-4

YOON Kichang (KSWC, Korea)

Closing Ceremony

Ceremony Chair : WI Gwansik (KSWC, Korea)

09:30-18:00 **Excursion Tour**

Poster Presentation

11:00-12:00 Poster Session

Oct. 25-26

Solar Physics & Interplanetary Space

P – 0A **Space Weather Operations of Korean Space Weather Center**

YOON KiChang (KSWC, Korea)

P – 0B **The Automatic Solar Synoptic Analyzer and Solar Wind Prediction**

HONG Sunhak (KSWC, Korea)

P – 01 **A statistical relationship between high speed solar wind streams and lightning rate over South Korea**

LEE Dong-Hee (KMA, Korea)

P – 02 **Brief Review on KSEM: The first space-based magnetometer on eastern geostationary orbit**

OH Daehyeon (KMA, Korea)

P – 03 **Current status of KMA's operational space weather service**

YI Wonhyeong (KMA, Korea)

P – 04 **The 1st Korea Space Weather mission from Geostationary orbit : Current status and Plans**

LEE Hyesook (KMA, Korea)

P – 05 **Progress on Heliospheric Faraday Rotation for Space Weather Purposes**

Mario M. Bisi (STFC RAL Space, UK)

P – 06 **Analysis of observations of IPS at 140 MHz by the Mexican Array Radio Telescope for space weather applications**

E. Aguilar-Rodriguez (UNAM/MEXART/SCiESMEX, Mexico)

P – 07 **Coronal Mass Ejections' Automatic Forecast System**

Bin Zhuang (Department of Earth and Space Science, USTC, China)

P – 08 **Learning Solar Flare Forecasting Model From Magnetogram Pixels**

Xin Huang (NAO/CAS, China)

P – 09 **Flare Prediction Model with Machine-Learning using Vector Magnetogram and Chromospheric Brightening**

Naoto Nishizuka (NICT, Japan)

P – 10 **First Detection of Radial and Azimuthal Oscillations in Halo Coronal Mass Ejections**

LEE Harim (SSR, Kyung Hee University, Korea)

P – 11 **2016 Total Solar Eclipse Expedition of KASI**

BONG Su Chan (KASI, Korea)

P – 12 **Heating of an erupting prominence associated with a coronal mass ejection on 2012 January 27**

LEE Jin-Yi (Kyung Hee University, Korea)

P – 13 **Relations of Seismic Properties with Solar Activity from 1996 to 2015**

KIM Kibeom (Kyungpook National University, Korea)

P – 14 **Forecast of a solar daily X-ray peak flux based on deep learning using SOHO MDI magnetograms**

KIM Taeyoung (InSpace Co. Ltd., Korea)

P – 15 **Statistical characteristics of interplanetary magnetic field near the Earth**

CHOI Kyung-Eun (Chungbuk National University, Korea)

P – 16 **The variation of the Geoeffectiveness of the Recurrent CIRs during their Life Period**

Chenglong Shen (School or Earth and Space Science, China)

P – 17 **Prediction of long-term solar activities based on fractal dimension method**

KIM Roksoon (KASI, Korea)

P – 18 **Probing Heliospheric Disturbances using Low Frequency Radio Imaging Arrays**

Colin Lonsdale (MIT Haystack Observatory, USA)

P – 19 **Propagation of MHD disturbance in numerical modelling: Accuracy issues and condition**

KIM Kyung-Im (SSR, Kyung Hee University, Korea)

P – 20 **What determines IMF northward/southward directions at the Earth?**

SUNG Suk-Kyung (Kyung Hee University, Korea)

P – 21 **Verification on Radiation Pattern Of IPS Array With Ground Based Beacon Signal Source**

KIM Tae Young (Radar&Space Co. Ltd., Korea)

P – 22 **Two peculiar examples of ICME impacts on the Earth: the September 2014 and March 2015 Events**

CHO Kyungsuk (KASI, Korea)

P – 23 **World Interplanetary Scintillation Systems (WIPSS) USE of the UCSD IPS Tomography Program for Space Weather Forecasting**

Bernard Jackson (UCSD, USA)

Ionosphere

P – 24 **Occurrence climatology of E- and F-region field-aligned irregularities in the middle latitudes as observed by the Daejeon 40.8 MHz coherent scatter radar in South Korea**

KWAK Young-Sil (KASI, Korea)

P – 25 **Ionospheric electron density forecast during geomagnetic storm time**

Chia-Hung Chen (National Cheng Kung University, Taiwan)

P – 26 **The Australian Region Ionospheric Maps**

Zahra bouya (BOM/SWS, Australia)

P – 27 **Verification of a revised version of SAMI3 with the observed ionospheric data over the Korean peninsula**

KIM JeongHeon (KASI, Korea)

P – 28 **Storm time varaition of radiative cooling of thermosphere by nitric oxide emission**

MV Sunil Krishna (IITR, India)

P – 29 **Korean three dimensional ionosphere electron density modeling using data assimilation**

Chalachew Kindie Mengist (Chungnam National University, Korea)

P – 30 **Forecast model of ionospheric total electron content over Japan using a machine learning technique**

Michi Nishioka (NICT, Japan)

P – 31 **Research and Monitoring of The Ionosphere over Indonesia for Space Weather Information and Forecast Services (SWIFtS)**

Jiyo (LAPAN, Indonesia)

P – 32 **High-resolution GNSS-TEC observations using dense GNSS receiver networks**

Takuya Tsugawa (NICT, Japan)

P – 33 **Pre-earthquake Anomalous Ionospheric signatures observed at low mid-latitude Indian station Delhi during the year 2015 to early 2016: Preliminary results**

Sumedha Gupta (Radio & Atmospheric Sciences Division, India)

P – 34 **The plasma density Irregularities in the middle latitude F-region using the observation data by multiple instruments**

OH Seung-Jun (SELab, Inc., Korea)

P – 35 **Three-dimensional raytracing for HF radio communication**

Kornyanat Watt (NICT, Japan)

P – 36 **Plasma bubble observed from the ground to space, from the past to the future**

Kornyanat Watt (NICT, Japan)

P – 37 **The variations of ionosphere critical frequency of E layer over the equatorial geomagnetic region in Southeast Asia**

Prasert Kenpankho (KMITL, Thailand)

Magnetosphere

P – 38 **Dependence of spacecraft anomalies on energetic electron/proton particle fluxes**

YI Kangwoo (SSR, Kyung Hee University, Korea)

P – 39 **Observational Test of Empirical Magnetopause Location Models with Geosynchronous Data from 1996 to 2010**

PARK Eunsu (SSR, Kyung Hee University, Korea)

P – 40 **Statistical Analysis of The Geomagnetic Field Variation due to The Solar Eclipse**

KIM Jung Hee (Kyungpook National University, Korea)

P – 41 **Observational test of Earth's bow shock locations from gasdynamics and magnetohydrodynamics during low Alfven Mach number conditions**

LEE Jae-Ok (SSR, Kyung Hee University, Korea)