

## Session Schedule

### March 2, 2015 (Mon.)

#### 09:00-09:30 Opening Ceremony

Ceremony Chair : Mamoru Ishii (NICT, Japan)

##### Opening Address

Fumihiko Tomita (General Chair, NICT, Japan)

##### Greeting Message

Seung-Man Choi (KSWC, Republic of Korea)

##### Introduction of AOSWA

Toshio Iguchi (NICT, Japan)

#### 09:30-11:30 Special Session 1

Chair : Arun Kumar Upadhayaya (CSIR-NPL, India)

- S1-1 **The seeds, needs and wants of NICT space weather activities**  
Mamoru Ishii (NICT, Japan)
- S1-2 **Collaboration Priorities to Improve Space Weather Services**  
Terrance Onsager (NOAA, USA)
- S1-3 **A COSPAR/ILWS roadmap towards advanced space weather science to protect society's technological infrastructure**  
Tsutomu Nagatsuma (NICT, Japan)  
Karel Schrijver, Kirsti Kauristie, the COSPAR/ILWS roadmap team
- S1-4 **Space Weather Research & Activities in Malaysia**  
Zahira M. Radzi (ANGKASA, Malaysia)  
Nyanasegary Bhoopathy, M. Redzuan Tahar, Mhd Fairos Assillam, Noordin Ahmmad
- S1-5 **Space weather service and collaborations in NAOC**  
Huaning Wang (NAOC, China)  
Han He, Xin Huang
- S1-6 **Space Weather Monitoring in Pakistan**  
Ghulam Murtaza (Pakistan Space and Upper Atmosphere Research Commission (SUPARCO))
- S1-7 **Monitoring and forecasting the Regional Ionosphere based on GNSS techniques.**  
Zahra Bouya (IPS, Australia)  
Matthew Francis, Michael Terkildsen
- S1-8 **Space Weather Activity at KMITL and Its Research Networks in Thailand**  
Pornchai Supnithi (KMITL, Thailand)  
Prasert Kenpankho, Tharadol Komolmis, Mamoru Ishii

#### 11:30-12:00 Photo Session

#### 12:00-13:30 Lunch Time

## 13:00-15:30 Special Session 2

Chair : Yongha Kim (CNU, Republic of Korea)

- S2-1 Activities of the Korean Space Weather Center**  
Sung Won Park (KSWC, Republic of Korea)  
Sunhak Hong, Seung-man Choi
- S2-2 Continuous GPS receiver network in Vietnam and application for the ionospheric total electron content study in Southeast Asian region**  
Le Huy Minh (VAST, Vietnam)  
Christine Amory-Mazaudier, Rolland Fleury, Patrick Lassudrie-Duchesne, Alain Bourdillon,  
Lan Tran Thi, Thanh Nguyen Ha, Thang Nguyen Chien
- S2-3 Advance on space weather services at SEPC**  
Siqing Liu (NSSC, China)
- S2-4 Space Weather Research Development in UKM through International Collaboration**  
Mardina Abdullah (UKM, Malaysia)  
Siti Aminah Bahari
- S2-5 Multi-point ground-based observations of the thermosphere and ionosphere over Asia and Oceania by STEL, Nagoya University**  
Kazuo Shiokawa (STEL, Japan)  
Yuichi Otsuka
- S2-6 Space Weather Operations and Research Activities at the IGGCAS**  
Xiukuan Zhao (IGGCAS, China)  
Baiqi Ning, Guozhu Li
- S2-7 Developing the space weather monitoring and information system in Indonesia**  
Clara Yatini (LAPAN, Indonesia)  
Timbul Manik
- S2-8 KASI's contributions to space weather in the past 10 years**  
Kyungsuk Cho (KASI, Republic of Korea)

## 15:30-16:00 Coffee Break

## 16:00-18:00 Special Session 3

Chair : Pornchai Supnithi (KMITL, Thailand)

- S3-1 Introduction to MAGDAS of ICSWSE and to International Capacity Building of ISWI**  
Akimasa Yoshikawa (Kyushu Univ., Japan)
- S3-2 Space Weather Monitoring and Forecast in Taiwan**  
Jann-Yenq Liu (NSO, Taiwan)  
I-Te Lee
- S3-3 Solar simulation research focused on space weather**  
Tetsuya Magara (KHU, Republic of Korea)
- S3-4 North Pacific Observation System of Space Weather**  
Boris Shevtsov (IKIR, Russia)

- S3-5 Observations of solar radio bursts using a high-resolution spectro-polarimeter**  
Hiroaki Misawa (Tohoku Univ. Japan)  
Fuminori Tsuchiya, Kazumasa Iwai, Takahiro Obara, Yuto Katoh, Shintaro Sato,  
Kazutaka Kaneda, Hirotaka Kashiwagi
- S3-6 Observation Field for Ionosphere monitoring in Chiang Mai**  
Siramas Komonjinda (CMU, Thailand)  
Tharadol Komolmis, Ekkarach Somboon
- S3-7 Space Weather Effects of Solar Wind Transients in the Sun-Earth Distance - Interplanetary Scintillation Studies**  
Periasamy Manoharan (NCRA, India)
- S3-8 Ongoing Space Weather Program in Taiwan**  
I-Te Lee (Central Weather Bureau, Taiwan)  
Mark Cheng, Jann-Yenq Liu, Hsu-Hui Ho, Base Hsu, Phil Huang

**18:00-18:30 Break**

**18:30- Ice Breaker**

**March 3, 2015 (Tue.)**

**09:00-10:30 Special Session 4**

Chair : Zahara Bouya (IPS, Australia)

- S4-1 Space weather research and activities at USTC, China**  
Yuming Wang (USTC, China)
- S4-2 Stratospheric warmings & Ionospheric F2- region Variability: O(1S) dayglow a proxy to thermospheric dynamics**  
Arun Upadhayaya (NPL, India)
- S4-3 The R2O transition activities for the space weather operation in Korea: Moving forward to the future.**  
Seung Jun Oh (SELab Inc., Republic of Korea)  
Sangwoo Lee, Jeong-Deok Lee, Kyu-Chul Choi, Jonghyuk Yi, Mi-Young Park, Sunhak Hong,  
Sungwon Park, Daeyun Shin, Geonhwa Jee
- S4-4 Space weather effects on air navigation and utilization of space weather information**  
Susumu Saito (ENRI, Japan)
- S4-5 In-situ Measurements of the Cosmic Radiation on the Aircraft Altitude over Korean Peninsula**  
Inchun Park (Korea Airforce Weather Wing, Republic of Korea)  
Jaewon Lee, Jaejin Lee
- S4-6 Introducing a global data system for Solar Terrestrial science in Asia-Oceania**  
Toshihiko Iyemori (Kyoto Univ., Japan)  
Bernd Ritschel, IUGONET Steering Committee, IUGONET Development Group

**10:30-12:00 Discussion Time (Omiai Time)**

Chair : Mamoru Ishii (NICT, Japan)

**12:00-13:30 Lunch Time**

**13:30-15:30 Poster Session**

Chair : Sergey Smirnov (IKIR, Russia)

**15:30-16:00 Coffee Break**

**16:00-17:30 General Session 1 Solar, Solar-Wind, Magnetosphere**

Chair : Siqing Liu (NSSC, China)

**G1-1 A short-term solar eruption events forecasting model**

Xin Huang (NAOC, China)

Huaning Wang

**G1-2 Characteristics of Four SPE Classes According to Onset Timing and Proton Acceleration Patterns**

Roksoon Kim (KASI, Republic of Korea)

Kyungsuk Cho, Jeongwoo Lee, Youngdeuk Park

**G1-3 Evolution of the 12 July 2012 CME from the Sun to the Earth: Data-constrained three-dimensional MHD simulations**

Fang Shen (NSSC, China)

Chenglong Shen, Jie Zhang, Phillip Hess, Yuming Wang, Xueshang Feng

**G1-4 Initial Results of Mingantu Ultrawide Spectral Radioheliograph --- the Chinese Spectral Radioheliograph**

Yihua Yan (NAOC, China)

Wei Wang, Liu Fei, Zhijun Chen, Lihong Geng, Linjie Chen, Team CSRH

**G1-5 Korean Radiation Exposure Assessment Model for aviation route dose (KREAM)**

Junga Hwang (KASI, Republic of Korea)

Kyunghwan Dokgo, Enjin Choi, Kyung-Chan Kim, Hang-Pyo Kim, Kyung-Suk Cho

**G1-6 The comparison of the geomagnetic storm in solar cycle 23rd and 24th**

Chenglong Shen (USTC, China)

Yuming Wang, Yutian Chi, Liangwen Shi

**17:30-18:30 Break**

**18:30- Dinner**

## March 4, 2015 (Wed.)

### 09:00-12:00 Space Weather Event Report 1

Chair : Shinichi Watari (NICT, Japan)

Periasamy Manoharan (NCRA, India)

- E1-1 **Overview of solar-terrestrial environment between June, 2014 and March, 2015 <30min.>**  
S. Abe (Kyushu Univ., Japan)
- E1-2 **Long term variation of space weather activity <15min.>**  
M. Shinohara (Kagoshima National College of Technology, Japan)
- E1-3 **On NICT space weather forecast between June, 2014 and March, 2015 <15min.>**  
S. Watari (NICT, Japan)  
H. Kato, K. Yamamoto
- E1-4 **Observational characteristics of AR 12192 <20min.>**  
X. Huang (NAOC, China)  
H. Wang
- E1-5 **Cause and effect of the September 12-13, 2014 geomagnetic storm <20min.>**  
K. Cho (KASI, Republic of Korea)  
S. Kim, J. Hwang, Y. Kwak, R. Kim, S.-H. Park, P. Kumar
- E1-6 **CMEs during the Fukuoka Workshop Events <20min.>**  
N. Gopalswamy (GSFC/NASA, USA)  
P. Makela, H. Xie, S. Akiyama, S. Yashiro
- E1-7 **Flux rope analysis of solar wind structures associated with the selected events <15min.>**  
K. Marubashi (Former researcher of NICT, Japan)
- E1-8 **Report of Cosmic-Ray Neutron Observations in 2014 <10min.>**  
T. Watanabe (NICT, Japan)  
M. Hirahara, F. Abe, A. Maeda
- E1-9 **General Idea of the Data-Analysis Session of the SCOSTEP-WDS Workshop on Global Data Activities for the Study of Solar-Terrestrial Variability <5min.>**  
T. Watanabe (NICT, Japan)
- E1-10 **High energy particle observation at GEO obtained from Space Environment Data Acquisition Monitor (SEDA) onboard Himawari-8 <15min.>**  
T. Nagatsuma (NICT, Japan)
- E1-11 **Geomagnetic event review (September 2014 - February 2015) <15min.>**  
M. Sasaoka (KMO/JMA, Japan)  
T. Ohkawa

### 12:00-13:30 Lunch Time

## 13:30-15:30 Space Weather Event Report 2

Chair : Nozomu Nishitani (STEL, Japan)  
Siqing Liu (NSSC, China)

- E2-1 **Space Weather Events during 2014-15 - Ooty Interplanetary Scintillation Studies <20min.>**  
P.K. Manoharan (NCRA, India)
- E2-2 **Geomagnetic indices for the period from June 2014 to March 2015 <15min.>**  
M. Nose (Kyoto Univ., Japan)  
T. Iyemori
- E2-3 **Analysis on selected geoeffective events using observations and models at Space Environment Prediction Center <20min.>**  
S. Liu, E. Aa (NSSC, China)  
Q. Zhong, B. Luo, Z. Li, J. Gong
- E2-4 **Ground-based optical and magnetic field measurements of the upper atmosphere by STEL, Nagoya University <15min.>**  
K. Shiokawa (STEL, Japan)
- E2-5 **Space weather events analysis according to the observations of northeastern Russia <20min.>**  
S. E. Smirnov (IKIR, Russia)  
V. V. Bychkov, O. V. Mandrikova, I. S. Solovov, Yu. A. Polozov, T. L. Zalyaev, S. Y. Homutov,  
D. G. Baishev, I. N. Poddelsky, Z. F. Dumbrava
- E2-6 **Doing Space Weather by Using Ground-based Optical Instruments in the Polar Region <15min.>**  
K. Hosokawa (Univ. of electro-Communications, Japan)
- E2-7 **Comment: GIC as a return current of the global ionospheric currents during space weather disturbances <15min.>**  
T. Kikuchi (Nagoya Univ., Japan)  
K. Hashimoto, S. Watari, Y. Ebihara

## 15:30-16:00 Coffee Break

## 16:00-18:00 Space Weather Event Report 3

Chair : Shuji Abe (Kyushu Univ., Japan)  
Tatsuhiko Yokoyama (NICT, Japan)

- E3-1 **A report on the MAGDAS data and EE index from June 2014 to March 2015 <15min.>**  
A. Fujimoto (Kyushu Univ., Japan)  
S. Abe, T. Uozumi, M. G. Cardinal, H. Matsushita, S. Imajo, A. Yoshikawa
- E3-2 **Ionospheric observations in Japan and Southeast Asia (June 2014 - March 2015) <15min.>**  
T. Yokoyama (NICT, Japan)
- E3-3 **Slant TEC gradient analysis during 12-13 September, 2014 <20min.>**  
P. Supnithi (KMILT, Thailand)
- E3-4 **Ionospheric weather monitoring by FORMOSAT-3/COSMIC and ground-based GPS receivers <20min.>**  
J.-Y. Liu (NSO, Taiwan)  
I-T. Lee, Y.-Y. Sun, C.-Y. Lin, C.-T. Hsu, T. Matsuo, W. Wang

- E3-5 Dynamics of the ionosphere observed by the SuperDARN Hokkaido East / West HF radars during the 4 November storm event <15min.>**  
N. Nishitani (STEL, Japan)  
T. Hori, SuperDARN Hokkaido Pair of (HOP) radars group
- E3-6 Magnetosphere-ionosphere coupling simulation by REPPU (REProduce Plasma Universe) code <20min.>**  
T. Tanaka (Kyushu Univ./NICT, Japan)
- E3-7 Upper atmosphere observations of National Institute of Polar Research <15min.>**  
A. Kadokura (NIPR, Japan)  
Y. Ogawa, Y. Tanaka, N. Nishitani (STEL, Japan)

**18:00-18:30 Break**

**18:30- Banquet**

## March 5, 2015 (Thu.)

### 09:00-11:00 General Session 2 Ionosphere

Chair : Young-Sil Kwak (KASI, Republic of Korea)

- G2-1 Ionosphere Equivalent Conversion Methods from Oblique to Vertical using Oblique Measurement Data**  
Cheol Oh Jeong (KASI, Republic of Korea)  
Jae-Jin Lee, Hyesook Lee, Jo Jin-Ho
- G2-2 Basic Research: Toward Understanding the Day-to-Day Variability in Structuring of the Nighttime Equatorial F layer**  
Roland Tsunoda (SRI International, USA)
- G2-3 E layer critical frequency variation over an equatorial location in Thailand**  
Prasert Kenpankho (KMITL, Thailand)  
Pornchai Supnithi, Takuya Tsugawa
- G2-4 4-D observation of traveling ionospheric disturbances using a dense GPS receiver array**  
Kim Yongha (CNU, Republic of Korea)  
Nicholas Ssessanga, Yongha Kim, Hosik Kam
- G2-5 A statistical study of equatorial plasma bubble observed by GPS ROTI measurement along 96 to 120 East longitude over the years 2008 to 2013**  
Suhaila M Buhari (NICT, Japan)  
Mardina Abdullah, Tatsuhiro Yokoyama, Alina Marie Hasbi, Yuichi Otsuka, Michi Nishioka, Takuya Tsugawa
- G2-6 CNTEC: A regional ionospheric TEC mapping technique over China and adjacent areas**  
Ercha Aa (NSSC, China)  
Wengeng Huang
- G2-7 4-D observation of traveling ionospheric disturbances using a dense GPS receiver array**  
Nicholas Ssessanga (CNU, Republic of Korea)  
Yong Ha Kim

**G2-8 Three-dimensional high-resolution plasma bubble modeling**

Tatsuhiko Yokoyama (NICT, Japan)

Hiroyuki Shinagawa, Hidekatsu Jin

**11:00-11:30 Summary of the Workshop**

Chair : Mamoru Ishii (NICT, Japan)

**Summary of Special Session: Toward International Collaboration on Space Weather Forecast**

Mamoru Ishii (NICT, Japan)

**11:30-12:00 Closing Ceremony**

Ceremony Chair : Tsutomu Nagatsuma (NICT, Japan)

**12:00-13:30 Lunch Time**

**13:30- Excursion Tour**

## Poster Presentation (Poster Session: March 3, 2015 13:30-15:30)

Chair : Sergey Smirnov (IKIR, Russia)

### The Sun & Solar wind

- P-1 Sun Tracking Antenna Mount for the Korean e-CALLISTO Station**  
Su-Chan Bong (KASI, Republic of Korea)  
Bi-Ho Jang, Jongyeob Park
- P-2 Testing the reliability of ice-cream cone model**  
Zonghao Pan (USTC, China)  
C.L. Shen, C.B. Wang, X.H. Xue, K. Liu, Y.M. Wang, S. Wang
- P-3 Deflected propagation of CMEs from the Sun to 1 AU**  
Yuming Wang (USTC, China)  
Shen Chenglong
- P-4 Introduction to Korea Data Center (KDC) for SDO**  
Ji-Hye Baek (KASI, Republic of Korea)  
Seonghwan Choi, Jongyeob Park, Kyung-Suk Cho, Jaejin Lee
- P-5 Three-dimensional global MHD modeling of a 29 September 2013 coronal mass ejection**  
Junmo An (KHU, Republic of Korea)  
Tetsuya Magara, Satoshi Inoue, Keiji Hayashi, Takashi Tanaka
- P-6 Preflare Nonthermal Emission associated with Filament Eruption**  
Kim Sujin (KASI, Republic of Korea)  
Bhuwan Joshi, Kyung-Suk Cho
- P-7 Flare Prediction with Image Processing of Solar Magnetograms**  
Naoto Nishizuka (NICT, Japan)  
Yuki Kubo, Mitsue Den, Shinichi Watari, Mamoru Ishii
- P-8 Receiving system of real-time solar wind data from DSCOVR at NICT**  
Shinichi Watari (NICT, Japan)  
Yuki Kubo, Mamoru Ishii
- P-9 Automatic Solar Synoptic Analyzer and High Speed Solar Wind Prediction**  
Sunhak Hong (KSWC, Republic of Korea)  
Sungwon Park, Yungkyu Kim

### Magnetosphere

- P-10 Space weather data processing system for meteorological satellite, GK-2A**  
Cheol Oh Jeong (KASI, Republic of Korea)  
Jae-Jin Lee, Hyesook Lee, Jo Jin-Ho
- P-11 Prediction models of relativistic electron fluxes in the outer radiation belt based on multivariate autoregressive analyses**  
Kaori Sakaguchi (NICT, Japan)  
Tsutomu Nagatsuma
- P-12 Climatology of subauroral density troughs as observed by the Science and Technology Satellite-1**  
Jaeheung PARK (KASI, Republic of Korea)  
Kyoung Wook MIN, Jae-Jin LEE, Hee-Jun KIM, Junga HWANG, Young-Sil KWAK

- P-13 Effects of Solar and Geomagnetic Activities in Variations of Power Spectra of Electrical and Meteorological Variables in the Near Surface Atmosphere in Kamchatka during October 2003 Solar Events**  
Sergey Smirnov (IKIR, Russia)  
Galina Mikhailova, Olga Kapustina
- P-14 REPPU (REProduce Plasma Universe) code for Space Weather Simulators Developed at NICT: 3-dimensional MHD simulation codes for the Solar Surface-Solar Wind Coupling Model and the Next Generation Magnetosphere-Ionosphere Coupling Model**  
Mitsue Den (NICT, Japan)  
Takashi Tanaka, Yasubumi Kubota, Yuki Kubo, Tsutomu Nagatsuma, Shinichi Watari, Mamoru Ishii
- P-15 Wp index: A new substorm index derived from high-resolution geomagnetic field data at low latitude**  
Masahito Nose (Kyoto Univ. Japan)

## Ionosphere

- P-16 Day-to-day and seasonal variations of thermosphere and ionosphere reproduced in the long-term simulation database**  
Hidekatsu Jin (NICT, Japan)  
Yasunobu Miyoshi, Hitoshi Fujiwara, Hiroyuki Shinagawa
- P-17 Total Electron Content prediction model over Japan using an artificial neural network**  
Michi Nishioka (NICT, Japan)  
Takuya Tsugawa, Takashi Maruyama, Mamoru Ishii
- P-18 Korea Astronomy and Space Science Institute Activities for the Ionospheric Research**  
Young-Sil Kwak (KASI, Republic of Korea)  
Young-Sook Lee, Tae-Yong Yang, Jaeheung Park, Jae-Jin Lee
- P-19 EFFECTS OF SPACE WEATHER ON SPACE SYSTEMS**  
Sevda Ibrahimova (Institute for Space Research of Natural Resources, Azerbaijan)
- P-20 Activity Report on the SEALION: Recent efforts against Lightning**  
Hiromitsu Ishibashi (NICT, Japan)  
Takumi Kondo
- P-21 All-sky Imager - A Powerful tool for Investigations of Ionospheric Disturbances**  
Minoru Kubota (NICT, Japan)  
Yuichi Otsuka, Kazuo Shiokawa, Siramas Komonjinda, Tharadol Komolmis, Ekkarach Somboon, Takuya Tsugawa, Mamoru Ishii