### Monday, Nov. 30

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>08:30-09:00</td>
<td>Registration</td>
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<td>09:00-09:30</td>
<td>Opening ceremony:</td>
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<td></td>
<td>Hwung Hweng Hwung (Vice President / NCKU)</td>
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<td>J. J. Miau (Director / NSPO, Taiwan)</td>
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<tr>
<td>09:30-10:30</td>
<td><strong>Session 01</strong> 09:30-10:30</td>
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<td><strong>Session Chair:</strong> James W. Van Dam</td>
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<tr>
<td>09:30-10:00</td>
<td>Gyung-Su Lee (National Fusion Research Institute, Korea)</td>
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<td>Status and plan for the fusion research in Korea</td>
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<td>10:00-10:30</td>
<td>Anthony J. H. Donne (ITER-NL, Netherlands)</td>
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<td>Challenges in diagnostics for ITER</td>
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<td>10:30-10:50</td>
<td>Break</td>
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<td>10:50-11:50</td>
<td><strong>Session 02</strong> 10:50-11:50</td>
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<td><strong>Session Chair:</strong> Atsuhiro Nishida</td>
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<td>10:50-11:20</td>
<td>Masato Nakamura (ISS/JAXA, Japan)</td>
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<td>Future solar-system exploration plan of Japan</td>
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<td>11:20-11:50</td>
<td>Robert Lin (SSL/UCB, USA)</td>
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<td>CINEMA (Cubesat for Ion, Neutral, Electron, and Magnetic field) mission</td>
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<td>13:00-14:45</td>
<td><strong>Session 03</strong> 13:00-14:45</td>
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<td><strong>Session Chair:</strong> Robert Lin</td>
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<td>13:00-13:30</td>
<td>Sam Krucker (SSL/UCB, USA)</td>
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<td>Particle acceleration in solar flares</td>
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13:30-14:00 C. Z. Cheng (PSSC/NCKU, Taiwan)
Impulsive magnetic reconnection processes in solar flares and CMEs and laboratory plasmas

14:00-14:30 Gwangson Choe (Kyung Hee University, Korea)
Stepwise growth of coronal magnetic flux ropes leading to a grand scale solar eruption

14:30-14:45 Ya-Hui Yang (PSSC/NCKU, Taiwan)
Analysis of reconnection electric field in 2003 October 29 X10 flare

14:45-15:05 Break

Session 04 15:05-17:50
Session Chair: Andrew Yau

15:05-15:35 Wing-Huen Ip (IA/NCU, Taiwan)
Critical Issues on Surface-Plasma Interactions at Lunar Surface

15:35-15:50 Marty Chou (PSSC/NCKU, Taiwan)
A 2D equilibrium model of Saturn’s magnetosphere

15:50-16:20 Alfred B. Chen (ISAPS/NCKU, Taiwan)
Scientific results from the first five-year of ISUAL experiment

16:20-16:50 Kohichiro Oyama (PSSC/NCKU, Taiwan)
From laboratory to space experiments

16:50-17:05 Nobuko Fujikawa (PSSC/NCKU, Taiwan)
Development of a calibration facility for space plasma analyzers at PSSC/NCKU

17:05-17:35 Hideo Sugama (National Institute for Fusion Science, Japan)
Gyrokinetic theory and simulation of turbulent transport and zonal flows in toroidal plasmas
17:35-17:50  Chou Hsieng Chin (Electrophysics department, National Chiao Tung University)
            Mirror in plasmas

18:00-18:40  Plasma and Space Science Center - Laboratories Tour
Session 05 08:30-10:00
Session Chair: Anthony Donne

08:30-09:00  Atsushi Mase (Kyushu University, Japan)
Progress in microwave diagnostics and their applications

09:00-09:30  Satoshi Ohdachi (NIFS, Japan)
2D-imaging for fluctuation measurement in magnetically confined fusion devices

09:30-10:00  Hyeon Park
(Pohang University of Science and Technology, Korea)
University based fusion science programs in Korea and progress of KSTAR

10:00-10:20  Break

Session 06 10:20-11:50
Session Chair: Atsushi Mase

10:20-10:50  Shigeru Sudo (NIFS, Japan)
Impurity transport study in the magnetic confinement device based on diagnostic method of tracer-encapsulated pellet injection

10:50-11:20  Makoto Ichimura (University of Tsukuba, Japan)
Spontaneously excited waves in the ion cyclotron range of frequency on fusion devices

11:20-11:50  Suk Jae Yoo (National Fusion Research Institute, Korea)
Recent status of application plasma research at National Fusion Research Institute (NFRI)
Session 07 13:30-15:45
Session Chair: Kiyohumi Yumoto

13:30-14:00 Andrew W. Yau (Univ. Calgary, Canada)
Low-energy ion outflow: Current observations and knowledge gaps

14:00-14:30 Kan Liou (Applies Physics Laboratory, USA)
Suppression of auroral energy deposition by a large ionospheric conductance

14:30-15:00 Takashi Kikuchi (STEL, Nagoya University, Japan)
Electromagnetic coupling between the magnetosphere and ionosphere during storms and substorms - Observations and simulations

15:00-15:15 Kaiti Wang (PSSC/NCKU, Taiwan)
Analysis of ionospheric electron parameters in relation to the geomagnetic index Dst from RO data of FORMOSAT-3/COSMIC

15:15-15:45 Sunny W. Y. Tam (ISAPS/National Cheng Kung University, Taiwan)
ROMA (Rank-Ordered Multifractal Analysis) for Intermittent fluctuations with global crossover behavior --- Application to the auroral zone electric field

15:45-16:00 Break

Session 08 16:00-18:30
Session Chair: Takashi Kikuchi

16:00-16:30 James W. Van Dam (IFS, U. Texas at Austin, USA)
Ionospheric ultra-low-frequency waves generated as earthquake precursors
16:30-17:00 Dong Hun Lee (Kyung Hee University, Korea)
Effects of Heavy Ions on EMIC Wave Resonances near the Equatorial Region

17:00-17:30 George Parks (Space Science Laboratory/UCB, USA)
New observations on the cause of high temperature downstream of the Bow shock

17:30-17:45 A. V. Dimitriev (ISS, NCU)
Penetration of solar energetic particles to the polar cap

17:45-18:00 M. H. Saito (ISS, NCU)
Stepwise behaviors of aurora at substorm expansion and tail signatures

18:00-18:15 S. H. Lai (IA, NCU)
A simulation and theoretical study of energy transport on the Kelvin-Helmholtz instability in the MHD plasmas

18:15-18:30 A. V. Suvorova (ISS, NCU)
Magnetopause expansion for radial interplanetary magnetic field
### Session 09 08:30-10:00

**Session Chair:** Masato Nakamura

- **08:30-09:00** Bo Thide (Swedish Institute of Space Physics, Sweden)
  Plasma vorticity and electromagnetic angular momentum

- **09:00-09:30** Kiyohumi Yumoto (Space Environment Research Center, Kyushu University, Japan)
  MAGDAS Project for Space Weather during IHY/ISWI

- **09:30-10:00** Masafumi Hirahara (Tokyo University, Japan)
  Space plasma/particle experiment for the Japanese Geospace exploration mission with wide energy coverage and wave-particle correlation mode

**10:00-10:20** Break

### Session 10 10:20-12:20

**Session Chair:** Hyeon Park

- **10:20-10:50** William M. Tang (PPPL/Princeton University, USA)
  Scientific and computational challenges of the Fusion Simulation Program (FSP)

- **10:50-11:20** Ker-Chung Shaing (ISAPS/National Cheng Kung University, Taiwan)
  Neoclassical Toroidal Plasma Viscosity in Tokamaks

- **11:20-11:50** Nikolai N. Gorelenkov (PPPL/Princeton University, USA)
  Low frequency MHD oscillations in fusion plasmas and their application for spectroscopy

- **11:50-12:05** Yasutaro Nishimura (PSSC/NCKU, Taiwan)
  Discussions on simulation models for gyrokinetic MHD
12:05-12:20 Max Chung (Southern Taiwan Univ., Taiwan)
Electric field dependent reflection from plasma

Session 11 13:30-16:00
Session Chair: William M. Tang

13:30-14:00 Yasushi Ono (Tokyo University, Japan)
Physics and applications of impulsive 3-D magnetic reconnection

14:00-14:30 Atsuhiro Nishida
(Graduate University for Advanced Studies, Japan)
Kinetic aspects of magnetic reconnection in the Earth’s magnetotail

14:30-15:00 Bruce D. Scott
(Max-Planck-Institut für Plasmaphysik, Germany)
Gyrofluid and gyrokinetic models of collisionless reconnection

15:00-15:30 Ritoku Horiuchi (NIFS, Japan)
Multi-scale simulation of collisionless driven reconnection

15:30-16:00 Lin-Ni Hau (ISS/NCU, Taiwan)
MHD waves and plasma heating in the current sheet

16:00-16:20 Break

Session 12 16:00-18:00
Poster Session
(Please go Page 9~11 for list of posters)
Thursday, Dec. 03

Session 13 08:30-10:00
Session Chair: Shigeru Sudo

08:30-09:00 Shunjiro Shinohara (Kyushu University, Japan)
Basics and applications of high-density helicon plasma sources

09:00-09:30 Wonho Choe (Dept. Phys., KAIST, Korea)
Development for 300W class hall type plasma thrusters for small satellites

09:30-10:00 Kwo Ray Chu (National Tsing Hua University, Taiwan)
An overview of the electron cyclotron maser

10:00-10:20 Break

Session 14 10:20-11:50
Session Chair: Kwo Ray Chu

10:20-10:50 Lin I (Dept. Phys., NCU, Taiwan)
Phase space dynamics of dust acoustic wave breaking

10:50-11:20 Tobin Munsat (University of Colorado at Boulder, USA)
Dusty plasma studies at the University of Colorado Lunar Science Center

11:20-11:50 Hantao Ji (PPPL, Princeton University, USA)
Studying astrophysical plasmas in the laboratory: How is angular momentum rapidly transported in accretion disks?

11:50 Closing Ceremony

13:30 City Tour