

## **International Symposium on Geodesy in Kanazawa**

**October 28 (Mon.)**

**9:00 - 9:15 Opening Ceremony**

**9:20 - 10:20 Session A: GPS(1)**

**Chairperson: Dr. Takeshi SAGIYA (GSI)**

- I1. Constraints on rifting across the Kenya rift inferred from GPS (15min)  
W. Hunja, M. Kasahara (Hokkaido Univ.),  
M. Kamamia (KISM)
- I2. Algebraic solution of some geodetic problems relevant for developing countries (15min)  
J. L. Awange (Kyoto Univ.)
- I3. Analysis of secular crustal deformation in central Japan from GPS time-series (15min)  
V. Kathamana (Tokai Univ.), K. Miyashita (Ibaraki Univ.)
- I4. Inversion of GPS data using spectral decomposition of a Green function (15min)  
J. Honglin, T. Kato, S. Miyazaki, M. Hori (ERI)

**10:20 - 10:30 Break**

**10:30 - 12:00 Session B: GPS(2)**

**Chairperson: Dr. Fumiaki KIMATA (Nagoya Univ.)**

- I5. Verification of crust movement by point positioning using GPS pseudo range data (15min)  
M. Kawai (Toyama National Collage of Maritime Technology)
- I6. Integrated understanding of crustal deformation around the Itoigawa-Shizuoka Tectonic Line, central Japan, and its implications for regional tectonics and seismic hazard (15min)

T. Sagiya, T. Nishimura, H. Yarai (GSI), Y. Iio (DPRI)

17. Detailed displacement rate field around the Atotsugawa fault located in the high strain rate zone, NKTZ, central Japan (15min)

K. Hirahara, Y. Ooi, M. Ando (Nagoya Univ.) ,  
Y. Hosono, Y. Wada (DPRI), T. Ohkura (Kyoto Univ.)

18. Modeling the geometry of dike intrusion in Miyakejima volcano using GPS data (15min)

I. Meilano, F. Kimata, N. Fujii (Nagoya Univ.), S. Nakao, H. Watanabe (ERI), M. Ukawa, E. Fujita (NIED), K. Kawai (JHD)

19. Kinematic GPS for studying the August 18 2000 Miyakejima eruption: ground deformation vs GPS signal delay (15min)

D. Darmawan, F. Kimata (Nagoya Univ.),  
B. Setyadjie (ITB)

110. Studying the deformation of Bromo volcano by using GPS and EDM surveys (15min)

H. Z. Abidin, H. Andreas, M. Gamal, M. A. Kusuma (ITB), M. Hendrasto, O. K. Suganda,  
M. A. Pubawinata (VSI), F. Kimata (Nagoya Univ.)

**12:00 - 13:00 Lunch**

**13:00 - 14:30 Session C: GPS(3)/Radar Interferometry**

**Chairperson: Dr. Teruyuki KATO (ERI)**

111. Interplate coupling model in the Tokai region, Japan, estimated from the ground deformation by leveling, tide gauge measurement, and GPS measurements in 1996-2000 (15min)

F. Kimata, K. Hirahara, N. Fujii (Nagoya Univ.)

112. The synergy of VLBI and GPS in Japan (15min)

H. Tsuji, T. Tanabe, H. Kawawa, K. Miyakawa, K. Takashima, S. Kurihara, S. Yoshida, Y. Fukuzaki, S. Matsuzaka (GSI)

- I13. Vertical Repeatability of the Tsukuba 2000 GPSMET dense-network campaign (15min)  
S. Shimada (NIED)
- I14. Snapshot of TEC anomaly and its difference from GIM over Japan Islands (15min)  
J. Ping, Y. Kono, K. Matsumoto, K. Heki,  
N. Kawano (NAOJ), Y. Otsuka (Nagoya Univ.),  
A. Saito (Kyoto Univ.)
- I15. Differential Radar interferometry applications in Australia (15min)  
C. Rizos, L. Ge, E. Cheng (Univ. of New South Wales)

**14:15 - 14:30 Break**

**15:45 Session D: Earth's Rotation/Gravity**

**Chairperson: Dr. Yoichi FUKUDA (Kyoto Univ.)**

- I16. Records of central solar eclipses in ancient China and Japan and study on Earth rotation (15min)  
H. Yanben, Q. Qiyuan (NAOC)
- I17. Indonesian gravity fields determination from combination of surface gravity, satellite altimeter and digital terrain model data (15min)  
L. S. Heliani, Y. Fukuda, S. Takemoto (Kyoto Univ.)
- I18. On discrete schemes in downward continuation of gravity (15min)  
W. Sun (ERI)
- I19. Determination of variable density contrasts in a horizontal layer and corrections to the possible errors (15min)  
I. L. Ateya, S. Takemoto (Kyoto Univ.)
- I20. Grand Design for the Hybrid Gravity Network around the Mt. Fuji Volcano (15min)  
S. Okubo, M. Furuya, W. Sun, S. Matsumoto,  
H. Watanabe (ERI), M. Satomura (Shizuoka Univ.), S. Ueki (Tohoku Univ.)

## 16:45 Session D: Sea Level Change/Marine Geodesy/Borehole Measurements

**Chairperson: Dr. Shuhei OKUBO (Univ. of Tokyo)**

- I21. Sedimentation and sea Level changes along Bangladesh coast (15min)  
M. R. Islam, S. F. Begum (Nagoya Univ.)
- I22. ROV observation of precision acoustic transponders deployed on thick sediment (15min)  
H. Fujimoto, A. Sweeney, S. Miura, N. Uchida (Tohoku Univ.), K. Koizumi (ORI), Y. Osada (ERI)
- I23. Establishing the positions of acoustic transponders on the Pacific plate near the Japan Trench at a depth of 5.5 km for *In Situ* observation of Plate subduction (15min)  
A. D. Sweeney, H. Fujimoto, S. Miura (Tohoku Univ.), Y. Osada (ERI), C. D. Chadwell (SIO)
- I24. Stress and strain observation in deep boreholes and nearby active faults by using wireless intelligent type strainmeter and multi-component borehole instruments (15min)  
H. Ishii (TRIES), T. Yamauchi (Nagoya Univ.),  
S. Matsumoto (ERI)

### **Interactive Session**

**October 28 (Mon.) 10:15 - October 28 (Mon.) 17:00**

**(Posters can be left until October 30 (Wed.) 16:30 )**

- IP-1. To estimate the high orders and degrees spherical harmonic function model for Lunar topography  
J. Ping, K. Heki, K. Matsumoto, Y. Tamura (NAOJ)
- IP-2. Anticipated accuracy of lunar gravity field model from RSAT/VRAD mission

K. Matsumoto, S. Tsuruta, H. Hanada, K. Heki (NAOJ), T. Iwata (NASDA), N. Namiki (Kyushu Univ.)

IP-3. Lunar gravity studies from the Lunar Prospector line-of-sight acceleration data: isostatic compensation of medium sized craters  
T. Sugano, K. Heki (The Graduate University for Advanced Studies)

IP-4. Stability of GPS derived velocity field in Japan  
M. Kaidzu, K. Yamaguchi (GSI)

IP-5. Non-uniform distribution of water vapor in the atmosphere and retrieval coefficients of water vapor radiometers  
T. Tanaka (Meijo Univ.)

IP-6. Strong water vapor anisotropy at summer around Gifu University by the water vapor radiometer  
H. Takaba, M. Yoshida, K. Wakamatsu (Gifu Univ.), F. Kimata (Nagoya Univ.), R. Ichikawa (CRL), Y. Fukuzaki (GSI)

IP-7. Refinement of the satellite's state vectors and identification of the atmospheric delay effect to detect crustal deformations in the SAR interferometry  
S. Kobayashi (Kyushu Tokai Univ.), A. Otsuka (NARC)

IP-8. Calibration of a superconducting gravimeter by means of absolute gravity measurements with FG5 at Esashi station  
Y. Tamura, T. Sato (NAOJ), Y. Fukuda, T. Higashi (Kyoto Univ.)

IP-9. A New Gravity Anomaly Map: Conrad•  $B_{Moho}$  (BMoho•  $B_{Slab}$  (BSlab Residual Gravity Anomalies over the Japanese Islands  
Y. Kono, N. Gennai, H. Hara (Kanazawa Univ.), N. Furuse (Mitsubishi Space Software Co. Ltd.)

IP-10. Gravity observation using a superconducting gravimeter in Bandung  
M. Abe, S. Takemoto, Y. Fukuda, T. Higashi (Kyoto Univ.), S. Dwipa, D. S. Kusuma, A. Andan (Directorate of Mineral Resources Inventory, Indonesia)

- IP-11. Establishment of seafloor geodetic reference points toward detection of undersea plate motion around Japan  
M. Fujita, M. Sato, K. Koyama, J. Unemi,  
M. Katayama, S. Toyama, T. Yabuki (JHOD), M. Mochizuki, Z. Yoshida, A. Asada (Univ. of Tokyo)
- IP-12. A study about development of automatic baseline estimation technique in differential interferometry  
M. Kato, H. Nakagawa, M. Tobita,  
S. Mastuzaka (GSI)
- IP-13. The synergy of VLBI and GPS in Japan  
H. Tsuji, T. Tanabe, H. Kawawa, K. Miyakawa, K. Takashima, S. Kurihara, S. Yoshida,  
Y. Fukuzaki, S. Matsuzaka (GSI)

Abbr.

- CRL: Communication Research Laboratory  
DPRI: Disaster Prevention Research Institute, Kyoto University  
ERI: Earthquake Research Institute, University of Tokyo  
GSI: Geographical Survey Institute  
ITB: Institute of Technology Bandung, Indonesia  
JHD: Japan Hydrographic Department  
JHOD: Hydrographic and Oceanographic Department, Maritime Safety Agency  
KISM: Kenya Institute of Surveying and Mapping  
NAOC: National Astronomical Observatory, Chinese Academy of Sciences  
NAOJ: National Astronomical Observatory of Japan  
NARC: National Agricultural Research Center  
NASDA: National Space Development Agency of Japan  
NIED: National Research Institute for Earth Science and Disaster Prevention  
ORI: Ocean Research Institute, University of Tokyo  
SIO: Scripps Institution of Oceanography  
TRIES: Tono Research Institute of Earthquake Science  
VSI: Volcanological Survey of Indonesia