



The 23rd CERE S International Symposium
The 18th Symposium on Environmental Remote Sensing
The 3rd Symposium on Microsatellites for Remote Sensing

December 1-2, 2015

Keyaki hall, Chiba University

Tuesday, December 1

9:45-10:00 Welcome Address (Ryutaro Tateishi)

Large hall (1st floor)

10:00-10:15 Group photo

Large hall (1st floor)

10:30-12:15 Poster Session

Reception hall (3rd floor)

P1: Haireti Alifu and Ryutaro Tateishi, Estimation of glaciers change in the National Park and Preserve

P2: Hirokazu Ohmae, Toshiko Miyake and Josaphat Tetuko Sri Sumantyo, Development of volcanic gas sensing system mounted on the UAV

P3: Bai Xiulian, Ryutaro Tateishi, Assessment of the soil characteristics using Landsat 8 data in Horqin sandy land

P4: Takahiro Miyazaki, Josaphat Tetuko Sri Sumantyo, Takumi Abe, Tomoyuki Nakazono, Koh-Ichiro Oyama and Tetsuya Kodama, A potential control of microsatellite using an electron gun

P5: Ayisulitan Maimaitiaili and Akihiko Kondoh, Monitoring and analysis of land use/cover change in Kashgar region based on Landsat and Spot Vegetation Data

P6: Nawo Eguchi and Naoko Saitoh, Study for dynamical process of atmospheric compositions in troposphere and stratosphere using satellite data- Part I: Seasonal and year-to-year variations of CO₂ and CH₄ from GOSAT FTS TIR -"

P7: K. Nakamura, J. T. Sri Sumantyo, Y. Osanai, H. Yang, and E. Santosa Cahya, Design and fabrication of X-band antenna for wideband synthetic aperture radar

P8: Chikako Ogasawara, Chiharu Hongo, Eisaku Tamura, Gunardi Sigit, A. A. Ayu Mirah Adi and I Gusti Agung Ayu Ambarawati, Relationship between regional characteristics of rice yield and water management in Indonesia

P9: Aminuddin Jamrud, Tomoaki Tsuneyoshi, Lagrosas Nofel, Naohiro Manago, Hiroaki Kuze, Derivation of aerosol distribution over Chiba area by combined analysis of satellite and PPI

lidar data

- P10:** Kazuhiro Aruga, Chunhui Liu, Ryo Uemura, Akira Kato, Analysis on economic balance of a clear cutting operation with terrestrial LiDAR at Funyu experiment forest of Utsunomiya University, Japan
- P11:** Risa Nozawa, Risa Fujimoto, Ryoko Funada, Makoto Kuji, Characteristics of aerosols with ground-based optical observation at Nara, Japan
- P12:** T. Somekawa, N. Manago, M.Fujita, H, Kuze, Development of differential absorption lidar using a white light continuum
- P13:** Ryoko Funada, Maya Nakamura, Makoto Kuji, Masataka Shiobara, Optical properties of marine aerosols from shipboard skyradiometer observation between Japan and Australia
- P14:** Kohtaro Iseki, Ryutaro Tateishi, A systematic classification of the patterns of drought stress occurred in agricultural lands
- P15:** Koji Asakuma, Yu SAWAFUJ, Akira HAMASAKI, Development of remote sensing method for ice algae in ice covered Lagoon Saroma-ko, Hokkaido
- P16:** Katsutoshi Kozai, Ryoutaro Abo, Teruo Ohsawa, Validation of wind speed profile models by using ASCAT and mesoscale model WRF in the North Sea
- P17:** I. Harada, Y. Horiuchi, Y. Miyabara, T. Idogawa, E. Jung, W. Nirei, K. Hara, A. Kondoh, Changes in levels of radioactive contamination in abandoned paddy soil, Minamisoma City
- P18:** Toru Terao, Taiichi Hayashi, Fumie Murata, Masashi Kiguchi, Yusuke Yamane, Azusa Fukushima, Direct evaluation of the TRMM 2A25 surface rain using raingauge network in the northeastern Indian subcontinent
- P19:** Hiroyuki Wakabayashi, Microwave characteristics of ice on Lake Saroma observed by PALSAR-2 and PiSAR-2L (A study on microwave measurement of sea ice physical parameters)
- P20:** Nobuyuki Okada, Ippei Harada, Analysis of honeybee's habitat using remote sensing data
- P21:** Munehisa K., Yamamoto, Shoichi Shige, Atsushi Higuchi, Development of GSMaP prototype in pre-TRMM era and satellite rainfall climate study
- P22:** Masaru Bunya, Kazuteru Namba, Josaphat Tetuko Sri Sumantyo, CP-SAR processing system on FPGA for multiple image size
- P23:** Hitoshi Saito, Hiroyuki Obanawa, Josaphat Tetuko Sri Sumantyo, Shoichiro Uchiyama, Yuichi S. Hayakawa, Application of high definition data for analysis of topographic and vegetation changes using UAVs and SfM photogrammetry -A case study of shallow landslides around Mt. Aso.-
- P24:** Kenji Masuda, Naohiro Manago, Hayato Saito, Koki Homma, Kanako Muramatsu, Kenichi Yoshimura, Yuji Kominami, Hiroaki Kuze, Spectral image measurement of chlorophyll fluorescence using the oxygen A band: application to rice field and forest

- P25:** Katsuyuki Noguchi, Hitoshi Irie, Hiroo Hayashi, A study on the Martian atmospheric environment using remote sensing data obtained by Mars orbiter missions
- P26:** Yosuke Niwa, Ryoichi Imasu, Naoko Saitoh, Yousuke Sawa, Kazuhiro Tsuboi, Hidekazu Matsueda, Masaki Satoh, Transport simulation of atmospheric CH₄ for surface flux estimation
- P27:** Sonoko Yamada, Tatsuo Shiina, LED mini-lidar for UAV mount
- P28:** Sanekazu Igari, Junichi Kokubo, Hong Zhou, Yanqun Xue, A preliminary study of the indoor calibration for the sky radiometer
- P29:** Yura Kim, Masayuki Maki, Masato Iguchi, Dong-In Lee, Volcanic eruption detected by weather radar under rainfall conditions.
- P30:** Sung-Ho Suh, Masayuki Maki, Masato Iguchi, Dong-In Lee, Tatsuya Momotani, Akihiko Yamaji, Volcanic ash parameters required for quantitative ashfall estimation
- P31:** Yousuke Sato, Atsushi Higuchi, Akinobu Murakami, Yuji Masutomi, Kazuki Tsuchiya, Daisuke Goto, Akinori Takami, Teruyuki Nakajima, Regional variability of vegetation impact on maximum temperature in Kanto Area on summer
- P32:** Jonggeol Park, Younghyun Kim, Object-based analysis and change detection of paddy field at Hokkaido, Japan
- P33:** Tatsuaki Kobayashi, Terumasa Takahashi, Hiroyuki Suzuki, Akihiko Kondoh, Production of radioactive risk map for wild vegetable and mushroom in Yamakiya District, Kawamata-machi, Fukushima Prefecture
- P34:** S. Katagiri, T. Hayasaka, K. Yamada, Cloud optical thickness derived from the ground observations
- P35:** Kanako Muramatsu, Noriko Soyama, Motomasa Daigo, Fumio Ochiai, Koji Kajiwara, Yoshiaki Honda, Development of gross primary production algorithm based on plant's photosynthesis capacity and a canopy conductance index using flux and global observing satellite data
- P36:** Hiroyuki Nakata, Kazuto Takaboshi, Kouhei Yoshikawa, Jun-ichiro Hirabayashi, Aritsugu Chonan, Toshiaki Takano, Mitsuru Matsumura, Hiroyuki Shinagawa, Ionospheric disturbances associated with natural hazards
- P37:** Peng Han, Katsumi Hattori, On the preparation process of the 2011 off the Pacific Coast of Tohoku Earthquake (Mw 9.0): a perspective from GPS data
- P38:** Naohiro Manago, Katsuyuki Noguchi, Makoto Suzuki, George Hashimoto, Hiroaki Kuze, Masanori Kobayashi, Tatsuo Shiina, and Hiroki Senshu : New numerical model on the radiative field of Martian atmosphere and strategy of radiative field observation in Mars landing mission in the future

13:30-15:00 Keynote speech (Chair : Ryutaro Tateishi)

Large hall (1st floor)

Each oral presentation (15 minutes presentation and 5 minutes discussion).

K-1: Dimitar Ouzounov, Katsumi Hattori, Sergey Pulinetz, Tiger Liu: Geospace Integration of Satellite and Ground Observations for Alerting of Large Earthquakes

K-2: Josaphat Tetuko Sri Sumantyo: Development of synthetic aperture radar onboard UAV, aircraft and microsatellite

K-3: Atsushi Higuchi: The third generation geostationary meteorological satellite
–Himawari -8 and its application to environmental remote sensing

15:20-17:00 General session (Chair : Koji Kajiwara)

Large hall (1st floor)

Each oral presentation (15 minutes presentation and 5 minutes discussion).

G-1: Tiger J.Y. Liu: Atmospheric and ionospheric remote sensing by radio occultation of FORMOSAT-3 /COSMIC

G-2: Katsumi Hattori, Peng Han, J.Y. Tiger Liu, Dimitar Ouzounov, Verelio Tramutoli: Sensor WEB approach to understand earthquake preparation process at Kanto, Japan

G-3: Kazuma Aoki: Aerosol optical properties measured by sky radiometer network Skynet

G-4: Daniele Perissin: Infrastructure monitoring via Multi-Temporal In SAR

G-5: Puspita Triana Dewi, Ghazali Suhariyanto Hadi, Muhammad Ramadhan Kusnaedi, Aris Budiarto, Agus Budiyo: Design and development of vertical takeoff and landing unmanned aerial vehicle for border surveillance

17:20-19:20 Banquet

Restaurant COLZA (1st floor)

Wednesday, December 2

9:00 – 10:40 Session 2A : Third SOMIRES (Chair : Josaphat T.S. Sumantyo)

Reception hall (3rd floor)

Each oral presentation (15 minutes presentation and 5 minutes discussion).

- 2A-1: Indra Riyanto**, Ardiansyah, Yuniarto, Nazori AZ, Wendi Usino, Suparmoko: Mapping of Sunda Kelapa dredging material dispersion pattern
- 2A-2: Kyeong-Rok Kim**, Hae-Won Jung, Tu-Hwan Kim, Heein Yang, and Jae-Hyun Kim: Development and implementation of the system parameter analysis simulator for L-band SAR
- 2A-3: Yuta Izumi**, Mohd Zafri Bin Baharuddin, Josaphat Tetuko Sri Smantyo, Ghozali Suhariyanto Hadi, Yudi Isvara, Agus Hendra, Heein Yang: Experiment of L-band synthetic aperture radar system using ISAR method in anechoic chamber
- 2A-4: Mohd Zafri bin Baharuddin**, Yuto Osanai, Josaphat Tetuko Sri Sumantyo: Suppressed side-lobe beam steered, C-band circularly polarized array antenna for synthetic aperture radar measurements
- 2A-5: Young-Deuk Kim**, Tu-Hwan Kim, Min-Wook Heo Jinhong An and Jae-Hyun Kim: Hardware Implementation and Verification of parallelized direct digital synthesizer (PDDS) using FPGA

9:00 – 10:20 Session 2B : Atmospheric Remote Sensing (Chair : Hitoshi Irie)

Conference room (3rd floor)

Each oral presentation (15 minutes presentation and 5 minutes discussion)

- 2B-1: Yoshikazu Iikura**, Naohiro Manago, Miho Sekiguchi, Hiroaki Kuze: Utilization of Radiative Transfer Code for Satellite Image Processing
- 2B-2: Masayuki Maki**, Masato Iguchi, Takeshi Maesaka, Toshikazu Tanada, Tomofumi Kozono: Weather Radar Observations of Sakurajima Volcanic Smoke
- 2B-3: Kisei Kinoshita**, Masayuki Maki, Satoshi Tsuchida, Naoko Iino, Chikara Kanagaki: Eruption clouds at volcanoes in Kyushu, Japan observed by web-camera, radar and satellite images
- 2B-4: Nofel Lagrosas**, Hayato Saito, Naohiro Manago and Hiroaki Kuze: Modeling of scattering enhancement factor from ground-based instruments in Chiba, Japan

10:50-12:30 Session 3A : Disaster and Anomaly (Chair : Hiroaki Kuze)

Reception hall (3rd floor)

Each oral presentation (15 minutes presentation and 5 minutes discussion)

- 3A-1: Ilham Alimuddin**, A.R. Rasyid, Purwanto, N.P. Bhandary, Ryuichi Yatabe, J.T.S. Sumantyo and H. Kuze: Landslide susceptibility mapping using DInSAR and statistic

model in Bawakaraeng mountain, Sulawesi, Indonesia

3A-2: Daijiro Kneko: Global Effects of SST Anomalies on Downwind Continental Crop Yields Using Satellite-Based Photosynthesis Models

3A-3: Hideomi Gokon, Wen Liu, Mariko Naruke, Fumio Yamazaki, Shunichi Koshimura, Kimiro Meguro: Toward an estimation of damage caused by a natural disaster using remote sensing technology

3A-4: Youngjoo Kwak, Yoichi Iwami, Akihiko Kondoh: Verification of Flood Damaged Rice Fields using Small UAV (Unmanned aerial vehicle)

3A-5: Kithsiri Perera, Ryutaro Tateishi, and Srikantha Herath: Assisting Mitigation of Bushfire Threat in Regional Australia through MODIS Imagery Based Media GIS

10:50-12:30 Session 3B : Food security & Agricultural Insurance(Chair:Chiharu Hongo)
Conference room (3rd floor)

Each oral presentation (15 minutes presentation and 5 minutes discussion)

3B-1: Gunardi Sigit: Current situation of agricultural insurance in Indonesia: Issues and future way forward

3B-2: Baba Barus, K Munibah, LS Iman, F Tonny, N Widiana, Setyardy, F: Development of Method for Agricultural Rice Field Protection in Indonesia

3B-3: Kazuhisa Tokui: The outline of Japan's agricultural insurance scheme

3B-4: Koki Homma: Development of a rice simulation model for remote-sensing (SIMRIW-RS)

3B-5: Chiharu Hongo: Application of satellite data for agricultural insurance as adaptation to climate change to contribute the food stability

13:30-14:50 Session 4A : Atmosphere and SAR (Chair : Atsushi Higuchi)
Reception hall (3rd floor)

Each oral presentation (15 minutes presentation and 5 minutes discussion)

4A-1 : Kenji Tanaka (Kyoto University):

TBD

4A-2 : T. Y. Nakajima,T. Watanabe, T. Funayama, Y. Yamamoto, H. Takenaka, T. Nakajima, H. Irie, and A. Higuchi: Satellite remote sensing and energy management

4A-3 : Kotaro Iizuka: Usage of SAR techniques for discriminating land cover classes

4A-4 : Uyanga Khudulmur, Josaphat Tetuko Sri Sumantyo, Study on land subsidence in Tokyo using PS-InSAR technique

13:30-15:50 Session 4B:Satellite.Remote.Sensing/ RS Technology(Chair:Akihiko Kondo)
Conference room (3rd floor)

Each oral presentation (15 minutes presentation and 5 minutes discussion)

- 4B-1: Aikebaier Maitiniyazi**, Ryutaro Tateishi, Alimujiang Kasimu: Glacier changes in the source region of Kaidu river and its impacts on Basin Hydrology in Bosten lake area, China
- 4B-2: Wei Yang**, Hideki Kobayashi and Kenlo Nishida Nasahara: Estimation of overstory and understory leaf area index in forests by multi-angular and multi-spectral satellite observations
- 4B-3: Brian A. Johnson**, Kotaro Iizuka, Isao Endo, Damasa B. Magcale-Macandog, Milben Bragais: Using Openstreetmap (OSM) crowdsourced data and Landsat imagery for land cover mapping in the Laguna de Bay area of the Philippines
- 4B-4: Husnul Kausarian**, J. T. Sri Sumantyo, Hiroaki Kuze: Silica sand identification using ALOS/Palsar Full Polarimetry at Northern Coastline of Rupa Island, Indonesia
- 4B-5: Idris Mandang** and Muhammad A. Fachrud: The spatial analysis of water masses movement in the Halmahera and Banda sea using empirical orthogonal function (EOF) methods
- 4B-6: K. Sakai**, R. Yamamoto, K. Hasegawa, T. Izumi, H. Matsuyama : Generation of DSMs of forest crown using areal images taken by small-sized UAV - Comparison of DSMs generated by vertical images and by vertical +oblique images-
- 4B-7: Heein Yang**, Josaphat Tetuko Sri Sumantyo, Good Fried Panggabean, Agus Hendra, Babag Purbantoro, Cahya Edi Santosa, Kaihei Nakamura, and Kyeong-Rok Kim: Conceptual design of unmanned aerial vehicle (UAV) on-board X-band synthetic aperture radar (SAR)

15:10-17:10 Session 5A : Forest and Vegetation (Chair : Yoshiaki Honda, Akira Kato)

Reception hall (3rd floor)

Each oral presentation (15 minutes presentation and 5 minutes discussion)

- 5A-1: Kazuo Mabuchi**, Masao Moriyama, Yoshiaki Honda, Koji Kajiwara: Validation of satellite product estimation algorithm using climate model simulation data
- 5A-2: Shin Nagai**, Taku M Saitoh, Tomoharu Inoue, Rikie Suzuki, Yoshiaki Honda: Usability of phenological information published on web sites for ground-truthing of satellite remote-sensing observations
- 5A-3: Akira Kato**, Andrew T. Hudak, L. Monika Moskal, Christopher Gomez, Hiroyuki Obanawa, Yuichi Hayakawa, Kazuhiro Aruga: Beyond point clouds in forest application using Airborne Laser, Terrestrial Laser, and Structure from Motion
- 5A-4: Andrew T. Hudak**, Carlos A. Silva, Benjamin C. Bright, E. Louise Loudermilk, Akira Kato, Lidar tools and techniques for 3D vegetation structure characterization at multiple scales
- 5A-5: Yuichi S. Hayakawa**, Akira Kato, Hiroyuki Obanawa: Analysis on geomorphological conditions for vegetation growth using TLS and UAS

5A-6:Tatsuro Nakaji, Tomoko Akitsu, Hideki Kobayashi, Masato Hayashi, Nobuko Saigusa, Koji Kajiwara ,Yoshiaki Honda ,Kenlo Nasahara ,Masahiro Nakamura, Toshiya Yoshida, Hideaki Shibata, Tsutomu Hiura: Development of large-scale ecological monitoring sites for satellite validation in natural forests in Hokkaido, Japan

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9:45-10:00	Welcome Address	
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13:30-15:00	Keynote speech	
15:20-17:00	General session	
17:20-19:20		Banquet

Wednesday, December 2	Reception hall (3rd floor)	Conference room (3rd floor)
	9:00-10:40 Session 2A Third SOMIRES	9:00-10:20 Session 2B Atmospheric Remote Sensing
	10:50-12:30 Session 3A Disaster and Anomaly	10:50-12:30 Session 3B Food security & Agricultural Insurance
	13:30-14:50 Session 4A Atmosphere and SAR	13:30-15:50 Session 4B Satellite Remote Sensing/ RS Technology
	15:10-17:10 Session 5A Forest and Vegetation	