Agenda

The 1st ALOS-2 PI Workshop 2013

19 - 20 September 2013, Tsukuba, Japan

Thursday, 19 September 2013

08:30-　　　　　　**Registration**

Plenary Session: Chair Masanobu Shimada and Takeo Tadono

9:40-9:50:　　　Welcome Remarks; Shizuo Yamamoto, JAXA Executive Director

9:50-10:10:　　　ALOS-2 Science Program and RA4: Masanobu Shimada (EORC)

10:10-10:30:　　　ALOS-2 & PALSAR-2 Status: Yukihiro Kankaku (ALOS-2)

10:30-10:50:　　　ALOS-2 Observation Scenario: Shinnichi Suzuki (ALOS-2)

10:50-11:10:　　　ALOS-2 User Interface Gateway: Hiroki Nishi (ALOS-2)

11:10-11:20:　　　Data Distribution of ALOS: Tsutomu Yamanokuchi (RESTEC)

11:20-11:45:　　　Q&A and closing

11:45-13:00　　　**Lunch Break**

13:00-18:00　　**Parallel Sessions**

　　　　　　Session 1A　Disaster & Earthquake　　　　(at Conference Room 201B)

　　　　　　Session 2A　Polarimetry & Interferometry / Sensor Calibration

　　　　　　　　　　　　　　　　　　　(at Conference Room 202A)

　　　　　　Session 3A　Vegetation, Forestry & Wetland / Land-use & Land-cover Research

　　　　　　　　　　/ Geography　　　　　　(at Conference Room 202B)

18:00-　　　　　　**Reception**

Friday, 20 September 2013

09:00-   **Registration**

9:30-12:00   **Parallel Sessions**

Session 1B   Oceanography & Coastal Zone   (at Conference Room 201B)

Session 2B   Polar Research / Snow & Ice   (at Conference Room 202A)

Session 3B   Hydrology / Agriculture / Geology / Resources related Research
                                (at Conference Room 202B)

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

13:00-15:00   **Discussion Supersites**

Site 1A   Disaster & Earthquake   (at Conference Room 201B)

Site 1B   Oceanography & Coastal Zone   (at Conference Room 201A)

Site 2A   Polarimetry & Interferometry / Sensor Calibration
                               (at Convention Hall 300)

Site 2B   Polar Research / Snow & Ice   (at Conference Room 202A)

Site 3A   Vegetation, Forestry & Wetland / Land-use & Land-cover Research /
            Geography   (at Conference Room 202B)

Site 3B   Hydrology / Agriculture / Geology / Resources related Research
                               (at Conference Room 301)

15:00-15:30   **Break**

15:30-17:30   **Plenary Session**

Discussion Supersite Reports

17:30-17:40   **Closing Remarks**

Masanobu Shimada (EORC)

Agendas for Parallel Sessions

Session 1A: **Disaster & Earthquake**
Date & Hour: **Thursday, 19 September 13:00-17:54**
Room: **Conference Room 201B**

Co-Chairs: **Manabu Hashimoto and Urs Wegmuller**

13:00-13:18 **[1A-01] Landslide Monitoring with L-Band ALOS PALSAR Data Stacks in the Three Gorges Area of China**
Lu ZHANG, Wuhan University
PI: Mingsheng LIAO, Wuhan University
CO-I: Timo BALZ

13:18-13:36 **[1A-02] Displacement mapping using PALSAR-2 DINSAR, PSI and tracking**
Urs Wegmuller, Gamma Remote Sensing AG
CO-I: Tazio Strozzi, Charles Werner, Andreas Wiesmann

13:36-13:54 **[1A-03] Influence of meteorological and hydrogeological factors on ground surface vertical oscillations**
Andrei Tronin, Scientific Research Centre for Ecological Safety by Russian Academy of Sciences

13:54-14:12 **[1A-04] Subsidence Estimation of the Peatland Forest in the Central Kalimantan using the PALSAR Time Series Differential Interferometry**
Masanobu Shimada, JAXA/EORC

14:12-14:30 **[1A-05] Studies of Hydrologic Surface Deformation from ALOS Data**
Howard Zebker, Stanford University

14:30-14:48 **[1A-06] Detection of surface displacements and liquefied areas in the 2011 Christchurch earthquake from PALSAR data**
Fumio Yamazaki, Chiba University
CO-I: Yoshihisa Maruyama, Gaku Shoji, Miguel Estrada, Wen Liu

14:48-15:06 **[1A-07] Ground deformation in alluvial plains detected with InSAR and its relation to active faults**
Manabu Hashimoto, Kyoto University

15:06-15:30 **Break**

Co-Chairs: **Howard Zebker, Yo Fukushima and Fumio Yamazaki**

15:30-15:48   **[1A-08] InSAR measurements around Alpine Fault, South Island of New Zealand**
Yo Fukushima, Disaster Prevention Research Institute, Kyoto University

15:48-16:06   **[1A-09] Monitoring of Natural Hazards in Papua New Guinea with PALSAR**
Matthew Garthwaite, Geoscience Australia
CO-I: Steve Saunders, Ima Itikarai, Chris McKee, Suame Ampana, Lae Sarah Lawrie, Shane Nancarrow, Libby Metz, Nick Horspool, Wally Johnson

16:06-16:24   **[1A-10] Application of ALOS-2 InSAR to volcano deformation processes**
Paul Lundgren, Jet Propulsion Laboratory, California Institute of Technology
CO-I: Akiko Tanaka, Falk Amelung, Cris Crosby, Yuri Fialko

16:24-16:42   **[1A-11] Application of InSAR and GPS time series to S. California earthquake cycle deformation transients**
Paul Lundgren, Jet Propulsion Laboratory, California Institute of Technology
CO-I: Rowena Lohman, Roland Burgmann, Gareth Funning, Yuri Fialko, Chris Crosby, David Schmidt, Mark Simons, Mohamed Aly, Chuck Wicks, Meng Wei, Howard Zebker

16:42-17:00   **[1A-12] Quantitative comparison of methods and sensors for monitoring land subsidence based on SAR interferometric stacking with ALOS-2**
Fumitaka Ogushi, Exelis VIS K.K.
CO-I: Paolo Pasquali, Alessio Cantone, Simone Atzori, Stefano Gagliano

17:00-17:18   **[1A-13] Active deformation due to calderas, cone volcanoes, tectonic rifting and geothermal fields in the Taupo Volcanic Zone, New Zealand**
Ian Hamling, GNS Science

17:18-17:36   **[1A-14] Damage Detection for Natural Disaster Response using ALOS-1/2**
Sang-Ho Yun, NASA - Jet Propulsion Laboratory

17:36-17:54   **[1A-15] Investigating the seismic cycle using Interferometric Synthetic Aperture Radar (InSAR) with ALOS-2 PALSAR**
Raphael Grandin, Institut de Physique du Globe de Paris
CO-I: Marie-Pierre Doin, Anne Socquet, Gilles Peltzer, Cécile Lasserre

Session 1B: **Oceanography & Coastal Zone**
Date & Hour: **Friday, 20 September / 09:30-11:30**
Room: **Conference Room 201B**
Co-Chairs: **Osamu Isoguchi and Xiaofeng Li**

09:30-09:50   **[1B-01] Application of SAR data for ocean oil spill monitoring and coastline change detection**
Xiaofeng Li, GST at NOAA/NESDIS

09:50-10:10   **[1B-02] Inter-Calibration and Validation of ALOS-2 PALSAR, Aquarius and SMAP L-band Measurements of Ocean Surface Wind**
Simon Yueh, Jet Propulsion Laboratory
CO-I: Alexander Fore, Benjamin Holt

10:10-10:30   **[1B-03] Investigation of Large Internal Waves at the Lombok and Ombai Straits of Indonesia using PALSAR-2 Data**
John Philip Matthews, Institute of Liberal Arts and Sciences, Kyoto University

10:30-10:50   **[1B-05] Comparison of the Doppler Centroid anomalies calculated from PALSAR with ocean surface currents**
Osamu Isoguchi, Remote Sensing Technology Center of Japan
CO-I: Keiko Ishii, Naoto Ebuchi, Takuji Waseda

10:50-11:10   **[1B-06] L-band Oil Spill Characteristics Extraction and Analysis: Potentialities and Limitations**
Giovanni Laneve, Università di Roma
CO-I: Pablo Marzialetti, Giancarlo Santilli, Roberto De Bonis, Lorenzo Fusilli

Session 2A: **Polarimetry / Interferometry / Sensor Calibration**
Date & Hour: **Thursday, 19 September 13:00-17:10**
Room: **Conference Room 202A**
Co-Chairs: **Wolfgang Martin Boerner and Akira Hirose**

13:00-13:20 **[2A-01]** **Urban area classification and urban density estimation from polarimetric SAR images**
Junichi Susaki, Kyoto University

13:20-13:40 **[2A-02] InSAR local co-registration method assisted by shape-from-shading**
Ryo Natsuaki, The University of Tokyo
PI: Akira Hirose, The University of Tokyo
CO-I: Donny Danudirdjo, Fang Shang, Shunichiro Fujinami

13:40-14:00 **[2A-03] Snow Pack Parameter Estimation and Glacier Movement Studies Using SAR Polarimetry Data**
Gopalan Venkataraman, Indian Institute of Technology Bombay
CO-I: Avik Bhattacharya, Snehmani

14:00-14:20 **[2A-04] ALOS Interferometric SAR Algorithm for Mapping Taiwanese Coastal Land Displacements**
Joz Wu, Center for Space and Remote Sensing Research, National Central University
CO-I: Jaan-Rong Tsay

14:20-14:40 **[2A-05] High-precision co-registration and highly functional filtering based on hypercomplex-valued neural networks for high-resolution PolInSAR data**
Fang Shang, The University of Tokyo
PI: Akira Hirose, The University of Tokyo
CO-I: Donny Danudirdjo, Ryo Natsuaki, Shunichiro Fujinami

14:40-15:00 **[2A-06]** **Observing forests with ALOS and ALOS-2: polarimetric - interferometric modeling and data processing**
Marco Lavalle, Jet Propulsion Laboratory, California Institute of Technology

15:00-15:30 **Break**

15:30-15:50 **[2A-07] Multi-Frequency Polarimetric Characterization of Arctic Sea Ice**
Torbjorn Eltoft, University of Tromso
CO-I: Harald Johnsen, Gunnar Spreen, Wlofgang Dierking, Laurent Ferro-Famil

15:50-16:10 **[2A-08]** **ALOS PALSAR interferometry results from Western North America InSAR Consortium (WInSAR)**
Chris Crosby, UNAVCO
CO-I: Scott Baker, Matt Pritchard, Members of WInSAR

16:10-16:30 **[2A-09]** **Polarimetric, Geometric and Interferometric Cross Calibration of PALSAR-2 with UAVSAR**
Scott Hensley, Jet Propuslsion Laboroatory
CO-I: Alex Fore, Thierry Michel, Ron Muellerschoen, Bruce Chapman

16:30-16:50 **[2A-10]** **Assessment of the potential of ALOS2 Polarimetric, Compact, and InSAR information in support of Key applications in Canada**
Ridha Touzi, Canada Centre for Remote Sensing
CO-I: N. Roulet, B. Sleep, T. Shipman, S. Patterson

16:50-17:10 **[2A-11]** **Federated archive web services provided by the Seamless SAR Archive (SSARA) project**
Scott Baker, UNAVCO

Session 2B: **Polar Research / Snow & Ice**
Date & Hour: **Friday, 20 September 09:30-12:10**
Room: **Conference Room 202A**
Co-Chairs: **Tsutomu Yamanokuchi and Sang-Eun Park**

09:30-09:50   **[2B-01] Investigation of sea ice floe breakup processes in 2012 summer using high resolution SAR and autonomous observing platforms**
Byongjun Hwang, Scottish Association for Marine Science

09:50-10:10   **[2B-02] Use of PALSAR-2 / PALSAR data for precise understanding of ice mass balance on Polar region**
Tsutomu Yamanokuchi, Remote Sensing Technology Center of Japan
CO-I: Koichiro Doi, Kazuki Nakamura

10:10-10:30   **[2B-03] Antarctic and Greenland ice velocity mapping with ALOS PALSAR-1**
Eric Rignot, University of California Irvine
CO-I: Jeremie Mouginot, Bernd Scheuchl

10:30-10:50   **[2B-04] Himalayan Glaciers Dynamics**
Noel Gourmelen, University of Edinburgh
CO-I: Urs Wegmuller, Emmanuel Trouve, Xiao Cheng

10:50-11:10   **[2B-05] Monitoring snowpack dynamics in temperate climates by ALOS-2 quad-pol mode**
Sang-Eun Park, Niigata University

11:10-11:30   **[2B-06] Advanced techniques in Polarimetric and Interferometric SAR with ALOS2 quad-pol data**
Armando Marino, ETH Zurich, Institute of Environmental Engineering
CO-I: Irena Hajnsek, Onur Yuzugulu, Simon Zwieback

11:30-11:50   **[2B-07] Uplift rates in the Antarctic Peninsula measured by ALOS PALSAR**
Anneleen Oyen, Delft University of Technology
CO-I: A. Hooper, R. Hanssen

11:50-12:10   **[2B-08] SAR geophysics by space geodesy group at Hokkaido University**
Masato Furuya, Hokkaido University
CO-I: Youhei Kinoshita, Takatoshi Yasuda

Session 3A: **Vegetation, Forestry & Wetland / Land-use & Land-cover Research / Geography**
Date & Hour: **Thursday, 19 September 13:00-17:36**
Room: **Conference Room 202B**
Co-Chairs: **Yoshio Yamaguchi, Mihai Tanase and Manabu Watanabe**

13:00-13:18 **[3A-01] Development of biomass retrieval algorithm by using L-band SAR**
Manabu Watanabe, JAXA

13:18-13:36 **[3A-02] Countrywide Forest Biomass Estimates Using ALOS PALSAR Data To Improve Greenhouse Gas Inventory In Estonia**
Aire Olesk, Tartu Observatory, University of Tartu
CO-I: Kaupo Voormansik, Karlis Zalite, Tiit Nilson, Yves-Louis Desnos

13:36-13:54 **[3A-03] Validation of PALSAR's potential for forest feature extraction by comparing with optical sensor data**
Rikie Suzuki, Japan Agency for Marine-Earth Science and Technology
CO-I: Hideki Kobayashi, Shin Nagai, Reichiro Ishii, Hadi Fadaei, Ram Avtar, Nobuko Saigusa

13:54-14:12 **[3A-04] Understanding the biomass-backscatter relationship in African woodlands: Estimating above-ground forest biomass stocks and changes**
Timothy Hill, University of St Andrews
PI: Casey Ryan, University of Edinburgh
CO-I: Iain Woodhouse, Mat Williams

14:12-14:30 **[3A-05] Forest Biomass Mapping from PRISM Stereo Imagery and PALSAR Radar Data**
Guoqing Sun, University of Maryland
CO-I: Wenjian Ni, K Jon Ranson

14:30-14:48 **[3A-06] Tropical Forest Remote Sensing of Structure and Biomass over Brazil with TanDEM-X**
Robert Treuhaft, Jet Propulsion Laboratory, California Institute of Technology
CO-I: Fabio Goncalves, João Roberto dos Santos, Michael Keller, Paulo Mauricio de Alencastro Graça, Michael Palace

14:48-15:06 **[3A-07] Quantifying and monitoring carbon dynamic in forest ecosystems affected by wildfires using multi-temporal SAR data**
Mihai A. Tanase, The University of Melbourne
CO-I: Kim Lowell, Robert Kennedy, Juan de la Riva

15:06-15:30   **Break**

15:30-15:48   **[3A-08] Multiple monitoring of biomass and plant distribution of terrestrial ecosystem by satellite and ground observation**
Kenlo Nishida Nasahara, University of Tsukuba

15:48-16:06   **[3A-09] Biomass sampling using terrestrial laser for ground truth of ALOS PALSAR**
Akira Kato, Chiba University
CO-I: Manabu Watanabe, Yoshio Yamaguchi, Akira Osawa, Toshiya Yoshida

16:06-16:24   **[3A-10] Development of ALOS-2 PALSAR polarimetric data utilization for monitoring the earth surface**
Yoshio Yamaguchi, Niigata University
CO-I: Sang Eun Park, Gulab Singh, Yi Cui, Wolfgang-M. Boerner, Jian Yang, Hiroyoshi Yamada, Ryoichi Sato

16:24-16:42   **[3A-11] Development of land cover database for the Sunsari district using ALOS AVNIR images**
Kabir Uddin, GIS and remote sensing analyst

16:42-17:00   **[3A-12] Joint Utilization of High-resolution L-band SAR Interferometry and Stereoscopy for Topographic Mapping in Mountainous Areas**
Lu ZHANG, Wuhan University
CO-I: Mingsheng LIAO, Timo BALZ, Teng WANG

17:00-17:18   **[3A-13] Accuracy Improvement of Land Cover Classification Using ALOS and ALOS-2 Data**
Atsuko Nonomura, Kagawa University
CO-I: Hitoshi Moriya, Takeo Tadono

17:18-17:36   **[3A-14] Comparison of the Performance of Texture Polarization Indices of L-band SAR and C-band SAR for Forest Biomass Estimation**
Md Latifur Rahman Sarker, Universiti Teknologi Malaysia

Session 3B: **Hydrology / Agriculture / Geology / Resources related Research**
Date & Hour: **Friday, 20 September 09:30-11:50**
Room: **Conference Room 202B**
Co-Chairs: **Christian Koyama and Takeo Tadono**

09:30-09:50   **[3B-01] Monitoring and modeling spatial patterns and temporal dynamics of surface soil moisture**
Karl Schneider, University of Cologne
CO-I: Esch, Sabrina, Christian Koyama

09:50-10:10   **[3B-02] Groundwater monitoring with InSAR**
Thomas G FARR, Jet Propulsion Laboratory
CO-I: Zhen LIU, Michelle SNEED, Chris CROSBY, Jessica REEVES, Francesco Zucca

10:10-10:30   **[3B-03] Estimation of habitat structure of river-floodplain systems using high resolution satellite images**
Shiena Okada, Tokyo Institute of Technology
PI: Chihiro Yoshimura, Tokyo Institute of Technology
CO-I: Oliver Saavedra, Takeo Tadono, Ryo Masahiro, Manabu Fujii

10:30-10:50   **[3B-04] Soil Moisture Mapping and Agriculture Crop Studies using ALOS PALSAR-2 Polarimetric SAR Data**
Yalamanchili Subrahmanyeswara Rao, Indian Institute of Technology Bombay
CO-I: Gopalan Venkataraman

10:50-11:10   **[3B-05] Soil Moisture Estimation over the Pampa Region using ALOS-2**
Marc Thibeault, CONAE
CO-I: Danilo Dadamia, Mario Azcueta, Marco Petriella

11:10-11:30   **[3B-06] Application of SAR Interferometry in monitoring the Surface Deformation of Taiwan Area**
Chung-Pai CHANG, Center for Space and Remote Sensing Research, National Central University
CO-I: Chein-Way Hwang, Jiun-Yee Yen, Wei-Chia Hung

11:30-11:50   **[3B-07] Detection of paddy rice planted area using ALOS and expectation to ALOS-2**
Naoki Ishitsuka, National Institute for Agro-Environmental Sciences

Poster Session

Date: **Thursday, 19 - Friday, 20 September**
Room: **In front of Convention Hall 300**

Disaster & Earthquake

1A-16: **Landslides, floods and land use changes monitoring for climate changes studies in Brazil using ALOS-2/PALSAR-2 images**
Francisco Dourado, University of Rio de Janeiro State
CO-I: Nelson Ferreira Fernandes, Fabio Sato, Vincent Nedelec, Ryoichi Furuta

1A-17: **Characterization of active unstable rock slopes along the Norwegian fjords**
John F. Dehls, Geological Survey of Norway
CO-I: Tom Rune Lauknes, Yngvar Larsen, Tom Grydeland

1A-18: **Analysis of multiple geohazards around metropolitan area in northern Taiwan by PS-InSAR with ALOS images**
Jyr-Ching Hu, National Taiwan University
CO-I: Chia-Sheng Hsieh, Erwan Pathier, Kuan-Chuan Lin, Johann Champenois

1A-19: **Geodetic imaging the great Sumatra fault, Indonesia from ALOS and ALOS-2 radar interferometry**
Xiaopeng Tong, University of California San Diego
CO-I: David T. Sandwell, Yehuda Bock, Peng Fang

1A-20: **Interseismic Deformation of the Sumatra fault, Indonesia from ALOS radar interferometry**
Xiaopeng Tong, University of California San Diego
CO-I: David T. Sandwell, Yehuda Bock, Peng Fang, Christopher Crosby

1A-21: **Study of andesitic stratovolcanoes topographic changes, eruptive deposits and deformation through L-band Synthetic Aperture Radar imagery: an insight into the magmatic plumbing system**
Virginie Pinel, ISTerre-Universite de Savoie
CO-I: Akhmad Solikhin, Servando De la Cruz-Reyna, Jean-Claude Thouret, Jean-Philippe Metaxian

1A-22: **L-band soil moisture skin depth study by using GB-SAR data**
Christian Koyama, Tohoku University
CO-I: Motoyuki Sato, Kazunori Takahashi

1A-23: **Study on Geo-hazards Recognition/Risk Assessment Methods using Interferometric and Image Statistics Analysis**
Ryoichi Furuta, Remote Sensing Technology Center of Japan

Oceanography & Coastal Zone

1B-07: **Spatial distinction of SAR-derived coastal wind fields and relation to coastal upwelling**
Tae-Sung Kim, Seoul National Univeristy
CO-I: Kyung-Ae Park, Sungwook Hong, Kum-Ran Kim

1B-08: **Retrieval of sea surface wind and wave height from ALOS PALSAR data and its error characteristics**
Tae-Sung Kim, Seoul National Univeristy
CO-I: Kyung-Ae Park, Jae-Jin Park, Sungwook Hong, Kum-Ran Kim

Polarimetry & Interferometry

2A-12: **Feature Extraction from ALOS/PALSAR Data for Forest Monitoring and Mapping**
Jian Yang, Tsinghua University
CO-I: Kui Wang, Hanwei Sun, Junjun Yin, Yoshio Yamaguchi

Sensor Calibration

2A-13: **Polarimetric calibration/validation of ALOS2/PALSAR2**
Toshifumi Moriyama, Nagasaki university
CO-I: Kazuki Nakamura

2A-14: **Geometric and Interferometric CalVal of ALOS-2 PALSAR along the San Andreas Fault System**
David Sandwell, UCSD
CO-I: Yuri Fialko, Xiaopeng Tong, Bridget Smith-Konter, Christopher Crosby

2A-15: **Study for the application of earth observation technologies to art**
Hiroshi Suzuki, Kanazawa College of Art
CO-I: Masato Ohki

Polar Research

2B-09: **Differential interferometric SAR processing using PALSAR data in north-western Greenland**

Koichiro Doi, National Institute of Polar Research

CO-I: Tsutomu Yamanokuchi, Kazuki Nakamura, Makoto Omura, Shigeru Aoki

Vegetation, Forestry & Wetland

3A-15: **Detecting Seasonal Defoliation in Tropical Rubber Plantation Using PALSAR**

Bambang H. Trisasongko, Bogor Agricultural University

CO-I: Dyah R. Panuju

3A-16: **Polarimetric analysis of burned forest areas: the Muravera case**

Giovanni Laneve, Università di Roma

CO-I: Pablo Marzialetti, Roberto De Bonis, Gerardo Fortunato, Lorenzo Fusilli

3A-17: **Topographic Variation on ALOS PALSAR Vegetation Index for Estimating Stand Volume in Mountainous Forest**

Choen Kim, Kookmin University, College of Forest Science

CO-I: Min-Gee Hong

Land-use & Land-cover Research

3A-18: **Paddy Filed Mapping for a Rotationally Irrigated Agricultural Area in the Nile Delta**

Masayoshi Satoh, University of Tsukuba

CO-I: Tomoyuki Taniguchi, Kenlo N. Nasahara, Kei Fujihira

Geography

3A-19: **Remote sensing applied for a study of geographical pathology for the relationships between malaria endemic and Malaria as Anthropo-Ecosystem consisting various subsystems**

Sumiko Anno, Shibaura Institute of Technology

CO-I: Tamotsu Igarashi, Aya Yamamoto, Takeo Tadono, Kazuo Oki

Agriculture

3B-08: **Analysis of multi-temporal ALOS PALSAR data observing tsunami damaged agricultural field by the 2011 Tohoku earthquake**
Chinatsu Yonezawa, Tohoku University
CO-I: Daisuke Kunii

3B-09: **Corn field detection at the Konsen region, Hokkaido, Japan using ALOS PALSAR data**
Nobuhiro Tomiyama, Remote Sensing Technology Center of Japan
CO-I: Toshio Okumura

3B-13: **Enhancement of the Kalideos Remote Sensing Databases using ALOS-1 and ALOS-2 data**
Philippe Durand, CNES
CO-I: Arnaud Sellé, Thierry Rabaute, Nicolas Baghdadi, Frédéric Baup, Marcello De Michele, Jean-Luc Froger

Geology

3B-10: **Use of InSAR products for detection of geodynamic risk zones due to hydrocarbon extraction**
Anton Filatov, Immanuel Kant Baltic Federal University
CO-I: Arkadiy Evtyushkin, Vitalii Bryksin

3B-11: **Development of Education Programs with Direct Access to the Earth Observation Data**
Tohru Takahashi, Oita National College of Technology
CO-I: Toshio Usui, Toyohisa Fujishima, Masato Ohk, Sano Hiroaki

Resources related Research

3B-12: **Geodetic determination of surface deformation due to resource extraction in Australia**
Matthew Garthwaite, Geoscience Australia
CO-I: Sarah Lawrie, John Dawson, Medhavy Thankappan, Mick Filmer, Will Featherstone, Linda Morgan, Andreas Schenk