



# 2nd International Polarimetric SAR Workshop in Niigata 2011

## Outline

The 2nd international polarimetric SAR workshop in Niigata 2011 (POLSAR-WS'11) is scheduled for promotion of researches on radar remote sensing and their applications. It will be held in Niigata, Japan, on October 3-4 at Tokimate, Niigata University satellite campus. You are cordially invited to participate in POLSAR-WS'11. Among various remote sensing techniques, the polarimetry & polarimetric interferometry have attracted the most appreciable attention owing to abundant information obtained by polarimetric SAR. The aim of this workshop is to introduce the cutting-edge technologies and to exchange new ideas and methodologies. It covers from the basic theory of polarimetry to its practical applications. In this respect, internationally celebrated scholars with long experience in this field are invited as guest speakers.

**Date:** October 3-4, 2011

**Venue:** Tokimate, Niigata University Satellite Campus, Niigata, Japan  
(<http://www1.niigata-u.ac.jp/tokimate/>)

## Sponsored by

Niigata University, IEEE GRS Japan Chapter, and URSI-F, Japan.

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This workshop is also corresponding to 2011 GRS Japan Chapter Technical Meeting.

## < Program (Ver. 3, 2011.09.17) >

### Oct. 3 (8:50-17:00)

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| 8:50 - 9:00   | Welcome message<br>- Dr. Yoshihisa Hara (IEEE GRS Japan)   |
| 9:00 - 9:40   | Polarization orientation angle estimation and applications<br>- Dr. Jong Sen Lee (National Central University, Taiwan)   |
| 9:40 - 10:20  | Microwave Scattering from Rough Surface with Layered Media: An AIEM Approach<br>- Prof. Kun-Shan Chen (National Central University, Taiwan)  |
| 10:20 - 10:40 | Coffee Break   |
| 10:40 - 11:20 | Polarimetric SAR Interferometry for Information Product Generation<br>- Dr. Kostas Papathanassiou (German Aerospace Centre, Germany)   |
| 11:20 - 12:00 | Forest canopy and foliage structure parameters from POLSAR data<br>- Dr. Thomas Ainsworth (Naval Research Laboratory, USA)   |
| 12:00 - 13:30 | Lunch  |
| 13:30 - 14:10 | Interoperability of radar and optical data for forest information assessment and outcomes for carbon monitoring<br>- Prof. Anthony K. Milne (University of New South Wales, Australia) |

14:10 - 14:40	Estimating above ground biomass using PALSAR and LiDAR - Dr. Akira Kato (Chiba University, Japan)
14:40 - 15:10	Understanding of Polarimetric SAR Data from Vegetated Surfaces: Backward Model, Forward Model, and Experiment - Dr. Motofumi Ariei (Mitsubishi Space Software, Japan)
15:10 - 15:30	Coffee Break
15:30 - 16:00	The progress research on circularly polarized synthetic aperture radar onboard microsatellite and UAV - Dr. Josaphat Tetuko Sri Sumantyo (Chiba University, Japan)
16:00 - 16:30	Polarimetric calibration using evolutionary algorithm - Dr. Toshifumi Moriyama (Nagasaki University, Japan)
16:30 - 17:00	SAR remote sensing in mountainous area - Dr. Sang-Eun Park (Niigata University, Japan)
17:30 -	Dinner

#### **Oct. 4 (9:30-17:00)**

9:30 - 10:20	Remote Sensing of Ocean Surface Wind, Current, Wave, and Internal Wave using Synthetic Aperture Radar - Prof. Wooil M. Moon (University of Manitoba, Canada)
10:20 - 10:40	Coffee Break
10:40 - 11:20	Optimization of Polarimetric Contrast Enhancement and its application - Prof. Jian Yang (Tsinghua University, China)
11:20 - 12:00	Potential assessment of SAR in compact and full polarimetry mode for snow/ice detection - Prof. G. Venkataraman (Indian Institute of Technology Bombay, India)
12:00 - 13:30	Lunch
13:30 - 14:10	An adaptive approach for polarimetric data to classify the land cover - Prof. Dharmendra Singh (Indian Institute of Technology Roorkee, India)
14:10 - 14:30	Basics of Scatterometer and its Application - Prof. Keshava P. Singh (Banaras Hindu University, India)
14:30 - 15:00	New airborne X-band SAR system (Pi-SAR2) and its application - Mr. Makoto Satake (NICT, Japan)
15:00 - 15:20	Coffee Break
15:20 - 15:50	Target detection using Synthetic Aperture Radar - Dr. Yi Cui (Niigata University, Japan)
15:50 - 16:20	Polarimetric SAR target decomposition based on unitary transformation - Dr. Gulab Singh (Niigata University, Japan)
16:20 - 16:40	Discussions and Closing Remarks - Prof. Yoshio Yamaguchi (Niigata University, Japan)