



# International Polarimetric SAR Workshop in Niigata 2010

## Outline

The international polarimetric SAR workshop in Niigata 2010 (POLARSAR-WS'10) is scheduled for promotion of researches on radar remote sensing and their applications. It will be held in Niigata, Japan, on September 28-29 just after AP-RASC'10 in Toyama (Sept. 22-26). You are cordially invited to participate in POLARSAR-WS'10. 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. No registration fee will be charged to participants in the workshop.

**Date:** September 28-29, 2010

**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.  
and in technical cooperation with IEICE SANE

This workshop is also corresponding to 2010 GRS Japan Chapter Technical Meeting,  
and URSI-F #547 Meeting.

## < Program (FINAL) >

### Sept. 28 (8:50-17:30)

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|---------------|--|
| 8:50 - 9:00   | Welcome message – Sang-Eun Park, Yoshihisa Hara  |
| 9:00 - 9:50   | Recent advances in fully polarimetric space SAR development<br>- Prof. Wolfgang-Martin Boerner (University of Illinois at Chicago, USA)                  |
| 9:50 - 10:40  | Polarimetric SAR calibration method using forest, surface, and decomposition model<br>- Dr. Masanobu Shimada (Japan Aerospace Exploration Agency, Japan) |
| 10:40 - 11:00 | Coffee Break   |
| 11:00 - 11:50 | Forest mapping and biomass estimation with SAR<br>- Prof. Anthony K. Milne (University of New South Wales, Australia)                                    |
| 11:50 - 13:30 | Lunch  |
| 13:30 - 14:20 | SAR polarimetry for terrestrial and lunar surfaces<br>- Dr. Shiv Mohan (Indian Space Research Organization, India)                                       |
| 14:20 - 15:10 | Classification of SAR and polarimetric SAR images for land cover application<br>- Prof. Dharmendra Singh (Indian Institute of Technology Roorkee, India) |
| 15:10 - 15:30 | Coffee Break   |

- 15:30 - 16:00 Velocity correlation functions of a moving target in SAR imagery  
- Dr. Motofumi Ariei (Mitsubishi Space Software, Japan)
- 16:00 - 16:30 Supervised land-cover classification by ALOS/PALSAR polarimetric interferometry  
- Dr. Masato Ohki (Japan Aerospace Exploration Agency, Japan)
- 16:30 - 17:00 New airborne X-band SAR system (Pi-SAR2)  
- Dr. Makoto Satake (National Institute of Information and Communications Technology, Japan)
- 17:00 - 17:30 Issues in quantitative remote sensing of land surface using polarimetric SAR  
- Dr. Sang-Eun Park (Niigata University, Japan)
- 18:00 - Get together party

**Sept. 29 (9:00-17:00)**

- 9:00 - 9:50 Applications of high-resolution polarimetric SAR data to forests  
- Dr. Hai-Peng Wang (Fudan University, China)
- 9:50 - 10:40 Feature extraction of a target and its applications  
- Prof. Jian Yang (Tsinghua University, China)
- 10:40 - 11:00 Coffee Break
- 11:00 - 11:50 Microwave scattering and emission modeling and applications  
- Prof. Kun-Shan Chen (National Central University, Taiwan)
- 11:50 - 13:30 Lunch
- 13:30 - 14:00 Polarimetric Target Decomposition theory and FDTD analysis  
- Prof. Ryoichi Sato (Niigata University, Japan)
- 14:00 - 14:30 Application of polarimetric SAR remote sensing to snow and ice monitoring  
- Dr. Gulab Singh (Niigata University, Japan)
- 14:30 - 14:50 The estimation of Faraday rotation and its impact on soil moisture estimation  
- Mr. J. Chen (Tohoku University, Japan)
- 14:50 - 15:10 Estimating Underwater Laver Cultivation Area from TerraSAR-X, ENVISAT- ASAR, and ALOS-PALSAR Amplitude Data, and Polarimetric Entropy  
- Mr. E. Won (National Defense Academy, Japan)
- 15:10 - 15:30 Coffee Break
- 15:30 - 15:50 Urban parameter extraction using POLSAR data  
- Mr. Yusuke Komatsu (Tokyo Metropolitan University, Japan)
- 15:50 - 16:10 Development of Circularly Polarized Synthetic Aperture Radar onboard UAV and Microsatellite  
- Mr. Prilando Rizki Akbar (Chiba University, Japan)
- 16:10 - 16:30 Study of Chasew plant growth using PALSAR data in Cambodia  
- Mr. Ram Avtar (Tokyo University, Japan)
- 16:30 - 17:00 Discussions and Closing Remarks