

POLinSAR 2007

The 3rd International Workshop on Science and Applications of SAR Polarimetry and Polarimetric Interferometry 2007

Opening Session	Chair: M. Engdahl/Y-L. Desnos
Keynote: Advances in SAR Interferometry Workshop presentation	C. Prati (Politecnico di Milano)
Keynote: Advances in SAR Polarimetric Interferometry Workshop presentation	S. Cloude (AEL Consultants)
Keynote: Airborne Campaigns for Pol-InSAR Applications Development Workshop presentation	I. Hajnsek (DLR), A. Moreira (DLR), M. Davidson (ESA)
Keynote: NASA/JPL PolInSAR Research and Plans Workshop presentation	A. Freeman (Jet Propulsion Laboratory, Caltech)
Keynote: ALOS PALSAR Mission and Polarimetric Applications Workshop presentation	M. Shimada (JAXA)
ALOS PALSAR First Results	Chair: M. Shimada/A. Moreira Secretary: M. Harter
Initial Polarimetric Calibration of PALSAR Workshop presentation	T. Moriyama (Japan Aerospace Exploration Agency), M. Shimada (Japan Aerospace Exploration Agency), M. Watanabe (Japan Aerospace Exploration Agency)
First results of the ALOS PALSAR verification processor Workshop presentation	P. Pasquali (sarmap s.a.), A. Monti Guarnieri (Politecnico di Milano), D. D'Aria (Aresys S.R.L.), L. Costa (Aresys S.R.L.), D. Small (RemoteSensing Laboratories - University of Zurich), M. Jehle (RemoteSensing Laboratories - University of Zurich), B. Rosich (ESA - ESRIN)
The Dual Polarization H/ α Decomposition: a PALSAR Case Study Workshop presentation	S. Cloude (AEL Consultants)
ALOS-PaLSAR Pol-InSAR Data Analysis: First Results Workshop presentation	K. Papathanassiou (DLR), R. Schneider (DLR), L. Marotti (DLR)
First Polarimetric and Interferometric Results from ALOS-PaLSAR	L. Marotti (German Aerospace Centre (DLR)), K. Papathanassiou (German Aerospace Centre (DLR)), R. Zandona Schneider (German Aerospace Centre (DLR)), I. Hajnsek (German Aerospace Centre (DLR))
Theoretical Studies	Chair: S. Cloude/I. Hajnsek Secretary: D. Fernandez

Modeling Surface and Subsurface Scattering from Saline Soils Workshop presentation	A. Freeman (JPL), T. Farr (JPL), P. Paillou (Astronomical Laboratory of Bordeaux), Y. Lasne (Astronomical Laboratory of Bordeaux), B. Campbell (National Aerospace and Science Museum)
Complex Interferometric Coherence Loci for the RVoG and OVoG Models With a Dominant Double-bounce Scattering in a Single-transmit Acquisition Mode Workshop presentation	J. Lopez-Sanchez (University of Alicante), J. Ballester-Berman (University of Alicante), Y. Marquez (University of Alicante)
Novel Strategies in Multidimensional SAR Data Filtering Workshop presentation	C. López-Martínez (Technical University of Catalonia), X. Fàbregas (Technical University of Catalonia)
Modeling and study of the polarimetric bistatic scattering of a forested area Workshop presentation	L. Thirion-Lefevre (Supélec), C. Dahon (Université Paris VI)
Optimum polarizations of bistatic incoherent mechanisms Workshop presentation	C. Titin-Schnaider (ONERA Palaiseau)
Advances in POLSAR and Pol-InSAR	Chair: E. Pottier/K. Papathanassiou Secretary: M. Engdahl
Multibaseline Polarization Coherence Tomography Workshop presentation	S. Cloude (AEL Consultants)
Study and Applications of POLSAR Data Time-Frequency Correlation Properties	L. Ferro-Famil (University of Rennes 1), A. Reigber (Berlin University of Technology), E. Pottier (University of Rennes 1)
Spectral Clustering of Polarimetric SAR Data with the Wishart Distance Workshop presentation	S. Anfinson (University of Tromsø), R. Jenssen (University of Tromsø), T. Eltoft (University of Tromsø)
Polarimetric fuzzy k-means classification with neighbourhood support Workshop presentation	A. Reigber (Berlin University of Technology), M. Jäger (Berlin University of Technology), N. Maxim (University of Rennes), F. Laurent (University of Rennes)
Multibaseline POL-InSAR Analysis of Urban and Natural Scenes at L-Band	S. Sauer (University of Rennes 1, IETR Laboratory), L. Ferro-Famil (University of Rennes 1, IETR Laboratory), A. Reigber (Berlin University of Technology), E. Pottier (University of Rennes 1, IETR Laboratory)
Multibaseline Polarimetric Interferometric SAR Coherence Optimization Workshop presentation	M. Neumann (University of Rennes 1), L. Ferro-Famil (University of Rennes 1), A. Reigber (Berlin University of Technology)
Poster Session Presentations	Chair: M. Davidson

Classification Based on the Polarimetric Dispersive and Anisotropic Behaviour of Scatterers Workshop presentation	M. Duquenoy (ONERA), L. Vignaud (ONERA), L. Ferro-famil (IETR), E. Pottier (IETR), J. Ovarlez (ONERA)
A combined use of decomposition and texture for terrain classification of fully polarimetric SAR images.	N. Rodionova (Institute of Radioengineering and Electronics)
Classification Method Validation for Rice Mapping Using ENVISAT APS Data Workshop presentation	E. Chen (Chinese Academy of Forestry), Z. Li (Chinese Academy of Forestry), B. Tan (Chinese Academy of Forestry), W. He (Chinese Academy of Forestry), B. Li (Jiangsu Academy of Agriculture Sciences)
Oil Spill Observation by means of Co-polar Phase Difference Workshop presentation	A. Gambardella (Università degli Studi di Cagliari), F. Nunziata (Università degli Studi di Napoli Parthenope), M. Migliaccio (Università degli Studi di Napoli Parthenope)
Land Cover Classification based on Polarimetric Coherence Signatures Workshop presentation	L. Zakharova (IRE RAS)
ICA Techniques Applied to SAR Polarimetric Interferometry Workshop presentation	P. Ballatore (MARSec)
Feature detection in POL-InSAR images by an interactive fuzzy fusion approach. Application to glacier monitoring Workshop presentation	G. Vasile (INP Grenoble), E. Trouvé (INP Grenoble), L. Valet (Politech'Savoie), J. Nicolas (Ecole Nationale Supérieure des Telecommunication), M. Gay (INP Grenoble), L. Bombrun (GIPSA-lab, CNRS), P. Bolon (Politech'Savoie)
Scale Mixture of Gaussians Modelling of Polarimetric SAR Data Workshop presentation	A. Doulgeris (University of Tromsø), T. Eltoft (University of Tromsø)
Forest Height Estimates for Boreal Forest using L- and X-band POLinSAR and HUTSCAT Scatterometer Workshop presentation	J. Praks (Helsinki University of Technology), F. Kugler (DLR), K. Papathanassiou (DLR), M. Hallikainen (Helsinki University of Technology)
AltPol backscatter from man-made objects using ENVISAT ASAR Workshop presentation	D. Weydahl (Norwegian Defence Research Establishment)
Forest height estimation using P-band Pol-InSAR data. Workshop presentation	F. Garestier (CESBIO), T. Le Toan (CESBIO), P. Dubois-Fernandez (ONERA)
Ship classification performance in single-pass Polarimetric SAR: Evaluation of the sea interaction	G. Margarit (Universitat Politècnica de Catalunya), J. Mallorqui (Universitat Politècnica de Catalunya), X. Fabregas (Universitat Politècnica de Catalunya)
Polarimetric SAR Calibration Validation for ALSO/PALSAR in Mongolia Workshop presentation	M. Sato (Tohoku University), I. Koichi (Tohoku University), D. Amarsikhan (Mongolian Academy of Sciences)
Application of Displaced Phase-Center Technique for Multi-Polarization InSAR	W. Wang (Chinese Academy of Science)

Performance Analysis of Scattering Phase Centers' Separation of PolInSAR Coherence Optimization Algorithms Workshop presentation	L. Bai (Institute of Electronics, CAS), W. Yanping (Institute of Electronics, CAS), W. Hong (Institute of Electronics, CAS), P. Hailiang (Institute of Electronics, CAS)
The Polarimetric Characteristics of Bottom Topography Related Features on SAR Images Workshop presentation	T. Kim (Kunsan University)
Modeling polarimetric SAR response of urban dihedrals Workshop presentation	G. Schiavon (Tor Vergata University), D. Solimini (Tor Vergata University)
Land Cover Feature Recognition by Fusion of PolInSAR and Optical Data Workshop presentation	M. Shimoni (Signal and Image Centre), D. Borghys (Signal and Image Centre), R. Heremans (Signal and Image Centre), N. Milisavljevic (Signal and Image Centre), D. Derauw (CSL), C. Pernel (Signal and Image Centre), A. Orban (CSL)
Ground—Agriculture Separation by Means of POLInSAR Workshop presentation	M. Neumann (University of Rennes 1), S. Daniel (University of Rennes 1), L. Ferro-Famil (University of Rennes 1), A. Reigber (Berlin University of Technology), E. Pottier (University of Rennes 1)
Multibaseline POLInSAR Module for SAR Data Processing and Analysis in RAT (Radar Tools) Workshop presentation	M. Neumann (University of Rennes 1), A. Reigber (Berlin University of Technology), M. Jäger (Berlin University of Technology), S. Guillaso (University of Rennes 1), O. Hellwich (Berlin University of Technology)
Seasonal variations of Earth sounding media polarimetric properties using first PALSAR data Workshop presentation	A. Zakharov (FIRE RAS)
Unsupervised classification using Wishart Classifier Workshop presentation	M. Ouarzeddine (USTHB), B. Souissi (USTHB), A. Belhadj-Aissa (USTHB)
Fitting a two-component scattering model to polarimetric SAR data from forests Workshop presentation	A. Freeman (JPL)
Extension of the Huynen theory to bistatic coherent mechanisms Workshop presentation	C. Titin-Schnaider (ONERA Palaiseau)
An Unsupervised Classification for Fully Polarimetric SAR Data Using SPAN/H/alpha/A, Complex Wishart Classifier and MCCV algorithm Workshop presentation	F. Cao (Institute of Electronics, CAS), W. Hong (Institute of Electronics, CAS), Y. Wu (Institute of Electronics, CAS), E. Pottier (IETR UMR CNRS 6164)
High Resolution X-band SAR Imagery for Precise Agriculture and Crop Monitoring Workshop presentation	D. Blumberg (Ben-Gurion University of the Negev)

First Assessment of Polarimetric Images from ALOS-PALSAR: Check of Polarimetric Calibration and Assessment of Land-Cover Classification Potential	M. Harter (ESA-ESRIN), M. Engdahl (ESA-ESRIN), Y. Desnos (ESA-ESRIN)
Forest Height Reconstruction by a Multi-Baseline Approach: Experimental Results Workshop presentation	A. Liseno (Università di Napoli Federico II), A. Capozzoli (Università di Napoli Federico II), G. D'Elia (Università di Napoli Federico II), A. Marino (Università di Napoli Federico II), A. Moreira (Deutsches Zentrum für Luft- und Raumfahrt (DLR)), K. Papathanassiou (Deutsches Zentrum für Luft- und Raumfahrt (DLR))
On the characteristics of L-band persistent scatterers	J. Kim (Seoul National University), W. Moon (Seoul National University), W. Boerner (University of Illinois at Chicago)
Applications: Forestry	Chair: C. Erxue/P. Dubois-Fernandez Secretary: A. Minchella
The specificity of P band PolInsar data over vegetation Workshop presentation	P. Dubois-Fernandez (ONERA), S. Angelliaume (ONERA), J. Souyris (CNES), F. Garestier (CESBIO), I. Champion (INRA)
The Extraction of InSAR Information from Imagery of a Wind-Blown Tree Canopy with a Ground-Based SAR Workshop presentation	K. Morrison (Cranfield University)
Application of PolSAR for Tropical Timber Plantation Forest in Indonesia Workshop presentation	M. Raimadoya (Bogor Agricultural University), B. Trisasongko (Bogor Agricultural University)
On the vertical distribution of backscatter from a forest canopy for improving polinsar retrievals Workshop presentation	I. Woodhouse (The University of Edinburgh)
Forest Parameter Estimation in Tropical Forests by Means of Pol-InSAR: Evaluation of the INDREX II Campaign	K. Florian (German Aerospace Center (DLR)), P. Kostas (German Aerospace Center (DLR)), H. Irena (German Aerospace Center (DLR))
Applications: Other	Chair: P. Pasquali/C. Lopez-Martinez Secretary: O. Gråbak
Multi-frequency PolInSAR signatures of a subpolar glacier Workshop presentation	J. Sharma (DLR - Microwaves and Radar Institute), I. Hajnsek (DLR - Microwaves and Radar Institute), K. Papathanassiou (DLR - Microwaves and Radar Institute)
Inversion of surface parameters from NASA/JPL AIRSAR polarimetric SAR data Workshop presentation	S. Park (Seoul National University), J. Kim (Seoul National University), W. Moon (Seoul National University), W. Boerner (University of Illinois at Chicago)
DTM Extraction Beneath Canopy Using L- and P-Band Data from INDREX-II: Preliminary Results Workshop presentation	B. Mercer (Intermap Technologies Corp.), Q. Zhang (Intermap Technologies Corp.)

An Overview of the PolSARpro v2.0 Software. The Educational Toolbox for Polarimetric and Interferometric Polarimetric SAR Data Processing. Workshop presentation	E. Pottier (I.E.T.R UMR CNRS 6164 - University of Rennes 1), L. Ferro-Famil (I.E.T.R UMR CNRS 6164 - University of Rennes 1), S. Allain (I.E.T.R UMR CNRS 6164 - University of Rennes 1), S. Cloude (AEL Consultants), I. Hajnsek (DLR - HR), K. Papathanassiou (DLR - HR), A. Moreira (DLR - HR), M. Williams (Dr Mark L. Williams), T. Pearson (ESA ESRIN), Y. Desnos (ESA ESRIN)
Implementation of repeat-pass SAR interferometry for search of earthquake precursory land-cover deformation; and how Infrasonic Imaging and HF-OTHR Technology can be implemented for detecting the On-set of and real-time spreading of Tsunamis Workshop presentation	W. Boerner (University of Illinois at Chicago), K. Chen (NCU-CSRSR/MSRS), K. Hattori (Chiba University), D. Widarto (LIPI, Indonesian Institute of Sciences)
Compact Polarimetry	Chair: J.-C. Souyris/A. Freeman Secretary: R. Cossu
SAR compact polarimetry for Earth observation and planetology : concepts and challenges Workshop presentation	J. Souyris (CNES), N. Stacy (Defence Science and Technology Organisation), T. Ainsworth (Naval Research Lab), J. Lee (Naval Research Lab), P. Dubois-Fernandez (ONERA)
Analysis of Compact Polarimetric SAR Imaging Modes Workshop presentation	T. Ainsworth (Naval Research Lab), M. Preiss (Defence Science and Technology Organisation), M. Stacy (Defence Science and Technology Organisation), M. Nord (Naval Research Lab), J. Lee (Naval Research Lab)
Comparison of compact polarimetric with full polarimetric radar data for land use discrimination based on SVM classification Workshop presentation	C. Lardeux (UMLV), P. Frison (UMLV), C. Tison (CNES), D. Deleflie (CNES), J. Souyris (CNES), J. Rudant (UMLV), B. Stoll (UPF)
Decomposition of Hybrid-Polarity SAR Data Workshop presentation	R. Raney (Johns Hopkins University)
Polarimetry and Persistent Scatterer Interferometry (PSI)	Chair: F. Rocca/K. Raney Secretary: P. Bally
A Subsidence Monitoring Project using a Polarimetric GB-SAR Sensor Workshop presentation	L. Pipia (Technical University of Catalonia (UPC)), X. Fabregas (Technical University of Catalonia (UPC)), A. Aguasca (Technical University of Catalonia (UPC)), J. Mallorqui (Technical University of Catalonia (UPC)), C. Lopez-Martinez (Technical University of Catalonia (UPC)), O. Mora (Cartografic Institute of Catalonia (ICC))
Comparison of L- and X-band POLSAR Data for Characterization of Polarization Orientation Angle Shift induced by Man-made Structure Workshop presentation	K. Iribe (Tohoku University), S. Motoyuki (Tohoku University)
A Study on LOS Rotation Angle Estimation Methods Using Coherent Scatterers	R. Schneider (German Aerospace Center (DLR)), K. Papathanassiou (German Aerospace Center (DLR))

Characterization of coherent scatterers in natural terrain using SAR polarimetry Workshop presentation	T. Lauknes (Norut IT), Y. Larsen (Norut IT), H. Johnsen (Norut IT), T. Eltoft (University of Tromsø)
Applications: Land/Agriculture	Chair: L. Ferro-Famil/P. Lombardo Secretary: F. Sarti
Unsupervised full-polarimetric segmentation for evaluation of backscatter mechanisms of agricultural crops	D. Hoekman (Wageningen University), T. Tran (SarVision), M. Vissers (SarVision)
Self-organizing maps of polarimetric SAR imagery Workshop presentation	F. Del Frate (Tor Vergata University), M. Del Greco (Tor Vergata University), G. Schiavon (Tor Vergata University), D. Solimini (Tor Vergata University), C. Putignano (GEO-K)
ENVISAT ASAR Polarimetric Data for Soil Moisture Mapping Workshop presentation	Y. Rao (IIT Bombay), A. Singh (IIT Bombay), S. Sharma (IIT Bombay), G. Venkataraman (IIT Bombay)
On the retrieval of soil moisture content over agricultural sites using L band SAR data Workshop presentation	F. Mattia (CNR), G. Satalino (CNR), A. Balenzano (CNR), M. Davidson (ESA)
AquiferEx: Results of the Optical and Radar Airborne Campaign in Tunisia Workshop presentation	R. Scheiber (German Aerospace Center (DLR)), I. Hajnsek (German Aerospace Center (DLR)), R. Horn (German Aerospace Center (DLR)), N. Oppelt (University of Munich (LMU)), W. Mauser (University of Munich (LMU)), B. Ben Baccar (Ministère d'Agriculture), R. Bianchi (ESA-ESRIN)
Parameter estimation from a quad-pol C-band acquired in repeat pass InSAR Workshop presentation	I. Hajnsek (German Aerospace Center), K. Papathanassiou (German Aerospace Center), R. Scheiber (German Aerospace Center), C. Andres (German Aerospace Center)
Spaceborne Missions for Pol-InSAR	Chair: W. Boerner/M. Davidson
RADARSAT-2 Update Workshop presentation	D. De Lisle (Canadian Space Agency)
RADARSAT-2 Mission Overview and Applications Workshop presentation	G. Staples (MDA)
Multi-channel SAR experiments from the space and from ground: Potential evolution of present-generation spaceborne SAR Workshop presentation	P. Lombardo (University of Rome La Sapienza), M. Sedehi (University of Rome La Sapienza), F. Colone (University of Rome La Sapienza)
TerraSAR-X Mission: Status Report and Polarimetric Data Exploitation Workshop presentation	A. Moreira (German Aerospace Center), I. Hajnsek (German Aerospace Center)
TanDEM-X: Mission and Science Exploration Workshop presentation	I. Hajnsek (German Aerospace Center), A. Moreira (German Aerospace Center)

The ESA BIOMASS Earth Explorer mission Workshop presentation	M. Davidson (ESA), T. Le Toan (CESBIO)
Studies of Ku- and X-band Radar Interactions with the Snow Cover in Preparation of the CoReH2O mission Workshop presentation	H. Rott (University of Innsbruck), D. Cline (NOAA-NOHRSC), K. Morrison (Cranfield University), T. Nagler (ENVEO IT GmbH), J. Pulliainen (Finnish Meteorological Institute), H. Rebhan (ESA-ESTEC), J. Shi (University of California at Santa Barbara), S. Yueh (JPL-Caltech)