

POLinSAR 2013 Programme Overview

Day 1, Monday 28		Day 2, Tuesday 29		Day 3, Wednesday 30		Day 4, Thursday 31		Day 5, Friday 1		
08:30-09:30	Registration	09:00-10:40 Polarimetric SAR Interferometry (Pol-InSAR)		09:00-11:00 Polarimetry and Tomography		09:00-10:40 Applications of SAR Polarimetry on Land: Agriculture, Urban, Archeology		09:00-11:00 Sessions Summaries		
09:30-11:00	Opening									
11:00-11:30	Coffee Break	10:40-11:10	Coffee Break	11:00-11:30	Coffee Break	11:00-11:30	Coffee Break	10:40-11:10	Coffee Break	
11:30-12:10	Opening & RT	11:10-13:50 Polarimetric SAR Interferometry (Pol-InSAR): Forest		11:30-11:50 Polarimetry and Tomography RT		11:30-12:30 Applications of SAR Polarimetry on Land: Agriculture, Urban, Archeology & RT		11:30-13:10 Sessions Summaries & Closing		
12:10-13:50	Methods & Theoretical Modelling									11:50-13:50 Applications on Ocean & Cryosphere & RT
13:50-15:00	Lunch Break	13:50-15:00	Lunch Break	13:50-15:00	Lunch Break	13:50-15:00	Lunch Break			
15:00-16:40	Methods & Theoretical Modelling	15:00-17:00 Polarimetric SAR Interferometry (Pol-InSAR): Forest & Joint RT		15:00-17:00 Applications on Ocean Pollution monitoring & target detection & RT		15:00-15:50 Applications of SAR Polarimetry on Land: Soil Moisture and Wetlands & RT				
16:40-17:10	Coffee Break	17:00-17:30	Coffee Break	17:00-19:30 Poster Session with refreshment		16:50-17:20				Coffee Break
17:10-18:30	Methods & Theoretical Modelling & RT	17:30-19:10 Polarimetry & DInSAR, Polarimetry & PSI & Joint RT				17:20-19:00				Applications of SAR Polarimetry: Other & RT
18:30-19:45	Welcome Cocktail			Non hosted Workshop Dinner						

POLinSAR 2013 WORKSHOP
Monday 28 January - DAY 1

8:30 - 9:30	Workshop Registration	
Session - Opening		
Chairs: Y.-L. Desnos, P. Potin		
9:30 - 9:40	Opening welcome	M. Borgeaud (European Space Agency)
9:40 - 10:00	POLinSAR Achievements and Plans	Y.L. Desnos (European Space Agency)
10:00 - 10:20	ESA's Biomass mission candidate: system and payload overview	K. Scipal (European Space Agency)
10:20 - 10:40	Sentinel 1 System overview	Dirk Geudtner (European Space Agency)
10:40 - 11:00	Sentinel 1 Mission Operation Concepts	P. Potin (European Space Agency)
COFFEE BREAK		
11:30 - 11:50	PolSAR-Ap: Exploitation of Fully Polarimetric SAR Data for Application Demonstration	I. Hajnsek (German Aerospace Center - DLR)
11:50 - 12:10	Round Table - Opening	
Session - Methods & Theoretical Modelling		
Chairs: R.K. Raney, I. Hajnsek		
12:10 - 12:30	Evaluation of the Decomposition Method based on Second- and Third-Order Statistics	S.K. Kojima (National Institute of Information and Comm. Technology - Japan)
12:30 - 12:50	Chi decomposition of imperfect hybrid dual-polarimetric data	R.K. Raney (2kR, LLC - USA)
12:50 - 13:10	Study of the Speckle Noise Effects Over the Eigen Decomposition of Polarimetric SAR Data: A Review	C. López-Martínez (Universitat Politècnica de Catalunya, UPC - Spain)
13:10 - 13:30	Schatten matrix norm based polarimetric SAR data regularization. An application over Chamonix Mont-Blanc	T.T. Le (University of Savoie, Polytech Annecy - France)
13:30 - 13:50	Compact versus full polarimetric SAR for optimum target polarisation information extraction	R. Touzi (Canada Centre for Remote Sensing)
LUNCH		
15:00 - 15:20	Poincare Sphere Representation of Independent Scattering Sources: Application on Distributed Targets	N. Besic (Gipsa-lab - France)
15:20 - 15:40	Wave Propagation Model for Polarimetric Scattering in Mangroves	D.K. Atwood (University of Alaska Fairbanks - USA)
15:40 - 16:00	PolSAR time series processing and analysis based on Binary Partition Trees	A. Alonso-Gonzalez (Universitat Politècnica de Catalunya, UPC - Spain)
16:00 - 16:20	The Theoretical Problem of Partial Coherence and Partial Polarization in PolSAR and PolInSAR.	JL. Alvarez-Perez (Universidad de Alcalá - Spain)
16:20 - 16:40	Scientist's idealism versus user's realism for ortho-rectifying full/compact polarimetric data of Radarsat-2/RCM	T. Toutin (Natural Resources Canada)
COFFEE BREAK		
17:10 - 17:30	On the Accuracy and Conditioning of Polarimetric Calibration Methods	A. Villa (Aresys, Politecnico di Milano - Italy)
17:30 - 17:50	SNR and Noise Variance Estimation in Polarimetric SAR Data	M. Villano (German Aerospace Center - DLR)
17:50 - 18:30	Round Table - Methods & Theoretical Modelling	
WELCOME DRINK		

POLinSAR 2013 WORKSHOP
 Tuesday 29 January - DAY 2

Session - Polarimetric SAR Interferometry (Pol-InSAR)		
Chairs: S. Hensley, A. Reigber		
9:00 - 9:20	Interpretation of Single-Pass Pol-InSAR Vegetation Signatures at X-Band: Dual- vs. Quad-Pol Case	H.J. Joerg (German Aerospace Center - DLR)
9:20 - 9:40	Tacking temporal decorrelation with the RMOG model	M. Lavalle (Jet Propulsion Laboratory - USA)
9:40 - 10:00	Tandem-L for Vertical Forest Structure Monitoring From Multibaseline Multipolarimetric L-Band SAR Data	K. Papathanassiou (German Aerospace Center - DLR)
10:00 - 10:20	Polarimetric-Interferometric Studies at La Amistad International Park	S. Hensley (Jet Propulsion Laboratory - USA)
10:20 - 10:40	PolInSAR and multifrequency image acquisition with the F-SAR Airborne SAR instrument	A. Reigber (German Aerospace Center - DLR)
10:40 - 11:10	COFFEE BREAK	
Session - Polarimetric SAR Interferometry (Pol-InSAR): Forest		
Chairs: K. Papathanassiou, P. Dubois-Fernandez		
11:10 - 11:30	Assessment of single baseline PolInSAR in tropical context for vegetation characterisation	P. Dubois-Fernandez (ONERA - France)
11:30 - 11:50	Impact of Geophysical Changes on the Pol-InSAR Phase Center of Tropical Dense Forests	A. Hamadi (CESBIO - France)
11:50 - 12:10	Pol-InSAR techniques for forest characterization with TanDEM-X	F. Kugler (German Aerospace Center - DLR)
12:10 - 12:30	A Maximum Likelihood Analysis of the RVoG Model for Forestry Studies in Polarimetric SAR Interferometry	C. López-Martínez (Universitat Politècnica de Catalunya, UPC - Spain)
12:30 - 12:50	First Pol-InSAR Forest Height Inversion by means of L-band F-SAR Data	S.-K. Lee (German Aerospace Center - DLR)
12:50 - 13:10	Estimation of canopy height using UAVSAR data in the Réserve Faunique des Laurentides and Penobscott forests.	M. Simard (Jet Propulsion Laboratory - USA)
13:10 - 13:30	A study of Tandem-X PolInSAR variation over a forested area	S. Solberg (Norwegian Forest and landscape Institute - Norway)
13:30 - 13:50	Investigation of the capability of Compact Polarimetric SAR Interferometry to Estimate Forest Height	H. Zhang (Center for Earth Observation and Digital Earth, CAS - China)
13:50 - 15:00	LUNCH	
15:00 - 15:20	MRV System Development for REDD+ in Indonesia: Pol-SAR Application	M. Raimadoya (Bogor Agricultural University - Indonesia)
15:20 - 15:40	Boreal Forest Biomass Classification with TanDEM-X	A. Torañó Caicoya (German Aerospace Center - DLR)
15:40 - 16:20	Status of the retrieval algorithms of the BIOMASS mission	T. Le Toan (CESBIO - France)
16:20 - 17:00	Joint Round Table - Sessions about Pol-InSAR	
17:00 - 17:30	COFFEE BREAK	
Session - Polarimetry & DInSAR, Polarimetry & PSI		
Chairs: A. Montiguarnieri, C.Lopez-Martinez		
17:30 - 17:50	Assimilation of Distributed Targets and PS Information for a Scene-Based Monitoring of the Polarimetric Data Distortion	L. Iannini (Politecnico di Milano - Italy)
17:50 - 18:10	Performance Comparison between Dual Polarimetric and Fully Polarimetric data for DInSAR Subsidence monitoring	D. Monells (Universitat Politècnica de Catalunya, UPC - Spain)
18:10 - 18:30	Polarimetric adaptative speckle filtering driven by temporal statistics for PSI applications	V.D. Navarro-Sanchez (University of Alicante - Spain)
18:30 - 18:50	Phase Quality Optimization Techniques and Limitations in Polarimetric Differential SAR Interferometry	R. Iglesias (Universitat Politècnica de Catalunya, UPC - Spain)
18:50 - 19:10	Round Table - Polarimetry & DInSAR, Polarimetry & PSI	

POLInSAR 2013 WORKSHOP
Wednesday 30 January - DAY 3

Session - Polarimetry and Tomography		
Chairs: S. Tebaldini, L. Ferro-Famil		
9:00 - 9:20	Towards Forest Vertical Structure Monitoring From Space: First Experiments With Multi-Baseline TanDEM-X Data	M. Pardini (German Aerospace Center - DLR)
9:20 - 9:40	P-band tomography imaging of tropical forest at 6 MHz bandwidth: capabilities for forest biomass estimation	D. HO TONG MINH (Politecnico di Milano - Italy)
9:40 - 10:00	ML tomography based on the MB RVoG model: optimal estimation of a covariance matrix as a sum of two Kronecker products	L. Ferro-Famil (University of Rennes 1 - France)
10:00 - 10:20	Wavelet-based compressed sensing for polarimetric SAR Tomography	E. Aguilera (German Aerospace Center - DLR)
10:20 - 10:40	Dual-baseline Polarimetric SAR Tomography for Tree Height Estimation Using Single-Pass L Band PolInSAR Data	Y. Huang (Intermap Tech. Corp. - Canada)
10:40 - 11:00	Diff-Tomo Separation of Temporal Decorrelation Mechanisms in Forest Multi-Pol Airborne Data	F. Lombardini (University of Pisa, CNIT-RaSS - Italy)
11:00 - 11:30	COFFEE BREAK	
11:30 - 11:50	Round Table - Polarimetry and Tomography	
Session - Applications on Ocean & Cryosphere		
Chairs: T. Eltoft, M. Migliaccio		
11:50 - 12:10	Polarimetric decomposition analysis of Sea Ice data	T. Eltoft (University of Tromsø - Norway)
12:10 - 12:30	On the Interpretation of L- and P-Band PolSAR Signatures of Polithermal Glaciers	G. Parrella (German Aerospace Center - DLR)
12:30 - 12:50	Snow property extraction based on polarimetry and differential SAR interferometry	S. Leinss (ETH Zürich - Switzerland)
12:50 - 13:10	On dual-polarized SAR measurements of the Ocean surface	A. Myasoedov (RSHU - Russia)
13:10 - 13:30	Marine Bacteria Monitoring via Polarimetric SAR	M. Migliaccio (Università di Napoli Parthenope - Italy)
13:30 - 13:50	Round Table - Applications on Ocean & Cryosphere	
13:50 - 15:00	LUNCH	
Session - Applications on Ocean Pollution monitoring & target detection		
Chairs: C. Brekke, F. Nunziata		
15:00 - 15:20	PolSAR-Ap: exploitation of fully polarimetric SAR data for oil and target at sea monitoring	F. Nunziata (Università di Napoli Parthenope - Italy)
15:20 - 15:40	Combining polarimetric channels for better ship detection results	T.N.A. Hannevik (Norwegian Defence Research Establishment - Norway)
15:40 - 16:00	Ship detection using polarimetric Radarsat-2 data and multi-dimensional coherent time-frequency analysis	C. Hu (University of Rennes1 - France)
16:00 - 16:20	Towards Oil Slick Monitoring in the Arctic Environment	C. Brekke (University of Tromsø - Norway)
16:20 - 16:40	A robust symmetry-based approach to exploit TerraSAR-X dual-pol data for targets at sea observation	D. Velotto (German Aerospace Center - DLR)
16:40 - 17:00	Round Table - Applications on Ocean Pollution monitoring & target detection	
17:00 - 19:30	FREE POSTER SESSION (with refreshment)	

Session - Applications of SAR Polarimetry on Land: Agriculture, Urban, Archeology		
Chairs: E. Koeniguer, J.M. Lopez-Sanchez		
9:00 - 9:20	Time Series Decomposition Analysis for Compact Polarimetry	S.R. Cloude (AEL Consultants - UK)
9:20 - 9:40	Polarimetric response of rice fields at C-band: analysis and applications	Juan M. Lopez-Sanchez (University of Alicante - Spain)
9:40 - 10:00	Scattering mechanism analysis using multi-angular polarimetric Radarsat-2 datasets	H. Wang (Institut National des Sciences Appliquees de Rennes - France)
10:00 - 10:20	POLSARap: investigating the benefits of polarimetry for urban applications using X-band SAR images.	E. Koeniguer (ONERA - France)
10:20 - 10:40	Multitemporal RADARSAR-2 fine-beam polarimetric SAR Data for urban land cover mapping	Y. Ban (KTH Royal Institute of Technology - Sweden)
10:40 - 11:00	Hybrid PolInSAR: Combining a HR single image and a full polarimetric image in a lower resolution - Example on urban	N. Trouve (ONERA - France)
11:00 - 11:30 COFFEE BREAK		
11:30 - 11:50	A multifrequency polarimetric SAR sensors analysis over the archaeological area of Djebel Barkal (Sudan)	J. Patruno (University of Rennes1 - France)
11:50 - 12:10	RADARSAT-2 polarimetric multi incidence angle analysis over the ancient city of Husn Al-Qadisiyya (Iraq)	N. Dore (University of Rennes1 - France)
12:10 - 12:30	Round Table - Applications of SAR Polarimetry on Land: Agriculture, Urban, Archeology	
Session - Applications of SAR Polarimetry on Land: Soil Moisture and Wetlands		
Chairs: R. Touzi, I. Hajnsek		
12:30 - 12:50	Polarimetric Decompositions for Soil Moisture Retrieval from Vegetated Soils in TERENO Observatories	T. Jagdhuber (German Aerospace Center -DLR)
12:50 - 13:10	RCM Compact Polarimetry Applied to Watershed Study	F. J. Charbonneau (Natural Resources Canada)
13:10 - 13:30	Soil moisture retrieval via a polarimetric two-scale and two-component scattering model	A. Natale (IREA CNR - Italy)
13:30 - 13:50	The chott El Jerid, Tunisia: Observation and interpretation of a SAR phase signature over evaporitic soils.	P. Paillou (University Bordeaux - France)
13:50 - 15:00 LUNCH		
15:00 - 15:20	Polarimetric L-band ALOS and C-band RADARSAT-2 for sub-arctic peatland characterisation and monitoring	R. Touzi (Canada Centre for Remote Sensing)
15:20 - 15:50	Round Table - Applications of SAR Polarimetry on Land: Soil Moisture and Wetlands	
Session - Applications of SAR Polarimetry: Other		
Chairs: E. Pottier, J.J. Zhang		
15:50 - 16:10	2003-2013 : 10 years of the PolSARpro v5.0 Software. New updates and its link with the ESA POLSAR-Ap project.	E. Pottier (University of Rennes1 - France)
16:10 - 16:30	CFAR test for a change detector based on an optimized power ratio	A. Marino (ETH Zurich - Switzerland)
16:30 - 16:50	Change detection analysis for under-cover detection in L and UHF band	H. Oriot (ONERA - Italy)
16:50 - 17:20 COFFEE BREAK		
17:20 - 17:40	Unsupervised Classification Based on Seven Scattering Categories Segmentation	J.J. Zhang (IECAS, University of Chinese Academy of Sciences - China)
17:40 - 18:00	A simple and extendable segmentation method for multi-polarisation SAR images	A.P. Doulgeris (University of Tromso - Norway)
18:00 - 18:20	Interpretation of an Insar image using geometric codes	A. Mokadem (Supelec - France)
18:20 - 18:40	A Modified Wishart Distance Measure and Its Application to PolSAR Change Detection	M. Liu (Center for Earth Observation and Digital Earth, CAS - China)
18:40 - 19:00	Round Table - Applications of SAR Polarimetry: Other	

POLinSAR 2013 WORKSHOP
Friday 1 February- DAY 5

Sessions Summaries	
Chairs: Y.-L. Desnos	
9:00 - 9:20	Methods & Theoretical Modelling
9:20 - 9:40	Polarimetric SAR Interferometry (Pol-InSAR)
9:40 - 10:00	Polarimetric SAR Interferometry (Pol-InSAR): Forest
10:00 - 10:20	Polarimetry & DInSAR, Polarimetry & PSI
10:20 - 10:40	Polarimetry and Tomography
10:40 - 11:00	Applications on Ocean & Cryosphere
11:00 - 11:30	COFFEE BREAK
11:30 - 11:50	Applications on Ocean Pollution monitoring & target detection
11:50 - 12:10	Applications of SAR Polarimetry on Land: Agriculture, Urban, Archeology
12:10 - 12:30	Applications of SAR Polarimetry on Land: Soil Moisture and Wetlands
12:30 - 12:50	Session - Applications of SAR Polarimetry: Other
12:50 - 13:10	Closing