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**Monday 23 March**

	Big Hall	Magellan	
09:00	Opening ESA & Sentinel-1		
11:00	Break		
11:25	InSAR with Sentinel-1 (TOPS) (1)		
13:20	Break		
14:30	InSAR with Sentinel-1 (TOPS) (2)		
16:10	RT		
16:40	Break		
17:00	Copernicus		
17:15	International Initiatives	Coherence Exploitation	17:15
		RT	18:55
19:35	Cocktail		19:25
20:30			20:30

**Tuesday 24 March**

	Big Hall	Magellan	
09:00	Theory and Techniques: General (1)	Cryosphere (1)	09:00
11:00	Break		11:00
11:30	Theory and Techniques: General (2)	Cryosphere (2)	11:30
13:10	RT	RT	13:10
13:40	Break		13:40
14:50	PSI and DInSAR (1)	Earthquakes (1)	14:50
16:30	RT	RT	16:30
17:00	Poster Session		17:00
19:30			19:30

**Wednesday 25 March**

	Big Hall	Magellan	
09:00	Earthquakes (2)	PSI and DInSAR (2)	09:00
10:40	Break		10:40
11:10	Earthquakes (3)	PSI and DInSAR (3)	11:10
		RT	12:50
13:10	Break		13:20
14:30	Earthquakes (4)	Mapping	14:30
		RT	16:10
16:30	Break		16:40
17:10	Earthquakes (5)	Subsidence & Landslides (1)	17:10
18:50	RT	RT	18:50
19:20			19:20

**Thursday 26 March**

	Big Hall	Magellan	
09:00	Subsidence & Landslides (2)	Volcanoes (1)	09:00
11:00	Break		11:00
11:30	Subsidence & Landslides (3)	Volcanoes (2)	11:30
13:30	Break		13:30
14:40	Subsidence & Landslides (4)	Volcanoes (3)	14:40
16:20	RT	RT	16:20
16:50	Poster Session		16:50
19:20			19:20

**Friday 27 March**

	Big Hall	
09:00	Mission Exploitation	09:00
11:00	Break	11:00
13:00	Session Summaries	13:00

RT= Round Table

## Oral Presentations Monday 23 March 2015

**1.1.0 Opening Session (Big Hall 09:00-09:30)**

- 09:00 Welcome  
*Liebig, Volker ESA*
- 09:10 Workshop introduction and Organisation  
*Engdahl, Marcus ESA, Italy*
- 09:20 ESA Scientific Exploitation of Operational Missions  
*Desnos, Yves-Louis ESA-ESRIN, Italy*

**1.1.1 ESA and Sentinel-1 Session (Big Hall 09:30-11:00)**Chairs: *Potin, Pierre / Desnos, Yves-Louis*

- 09:30 Copernicus Space Component Programmatic Status  
*Jutz, Simon ESA*
- 09:45 S1 Mission Status  
*Potin, Pierre ESA*
- 10:00 S1 Ground Segment and Data Access  
*Rosich, Betlem ESA*
- 10:15 S1 Instrument and Product Performance Status  
*Miranda, Nuno ESA*
- 10:30 ESA Heritage SAR missions  
*Laur, Henri ESA*
- 10:40 ESA & the Geohazards Exploitation Platform  
*Bally, Philippe ESA*
- 10:50 Sentinel-1 Toolbox  
*Engdahl, Marcus ESA, Italy*
- 11:00 Coffee Break

**1.1.2 InSAR with Sentinel-1 (1) (Big Hall 11:25 -13:00)**Chairs: *Larsen, Yngvar / De Zan, Francesco*

- 11:25 Sentinel-1 InSAR Capabilities: Results from the Sentinel-1A In-Orbit Commissioning  
*Geudtner, Dirk ESA-ESTEC, Netherlands, The*
- 11:40 INVESTIGATIONS WITH THE SENTINEL-1 INTERFEROMETRIC WIDE SWATH MODE  
*Prats-Iraola, Pau (1); Nannini, Matteo (1); Scheiber, Rolf (1); De Zan, Francesco (1); Wollstadt, Steffen (1); Minati, Federico (2); Costantini, Mario (2); Bucarelli, Andrea (2); Borgstrom, Sven (3); Walter, Thomas R. (4); Fomelis, Michael (5); Desnos, Yves-Louis (6) 1: German Aerospace Center (DLR), Germany; 2: e-GEOS SpA, ASI/Telespazio; 3: National Institute of Geophysics and Volcanology (INGV), Vesuvius Observatory; 4: GFZ Potsdam; 5: RSAC c/o ESA-ESRIN, Italy; 6: ESA-ESRIN, Italy*
- 12:00 SEOM - Sentinel-1 InSAR Performance Study with TOPS Data - Team B: First Results  
*Larsen, Yngvar (1); Johnsen, Harald (1); Marinkovic, Petar (2); Hooper, Andy (3); Wright, Tim J (3); Perski, Zbigniew (4); Dehls, John (5) 1: Norut, Norway; 2: PPO.labs, The Netherlands; 3: COMET, University of Leeds, United Kingdom; 4: Polish Geological Institute -*

*National Research Institute, Poland; 5: NGU, Norway*

- 12:20 Considerations of the Orbital Tube for Interferometric Applications  
*Prats-Iraola, Pau (1); Rodriguez-Cassola, Marc (1); Loopez-Dekker, Paco (1); Scheiber, Rolf (1); De Zan, Francesco (1); Barat, Itziar (2); Geudtner, Dirk (2) 1: German Aerospace Center (DLR), Germany; 2: ESA-ESTEC, The Netherlands*
- 12:40 Sentinel-1 precise orbit calibration and validation  
*Monti Guarnieri, Andrea (1); Mancon, Simone (2); Tebaldini, Stefano (3) 1: Politecnico di Milano, Italy; 2: Politecnico di Milano, Italy; 3: Politecnico di Milano, Italy*
- 13:00 Interferometric Evaluation of Sentinel-1A TOPS data  
*Yague-Martinez, Nestor (1,2); Rodriguez Gonzalez, Fernando (1); Brcic, Ramon (1); Shau, Robert (1) 1: Remote Sensing Technology Institute. DLR, Germany; 2: Technical University Munich. Germany*
- 13:20 Lunch Break

**1.1.3 InSAR with Sentinel-1 (2) (Big Hall 14:30 -16:40)**Chairs: *Prats-Iraola, Pau / D'Aria, Davide*

- 14:30 Sentinel-1 TOPS data coregistration: Operational and Practical considerations  
*Larsen, Yngvar (1); Marinkovic, Petar (2) 1: Norut, Norway; 2: PPO.labs, The Netherlands*
- 14:50 Sentinel-1 IW mode time-series analysis -- When to stitch? How to stitch? Whether to stitch?  
*Marinkovic, Petar (1); Larsen, Yngvar (2) 1: PPO.labs, The Netherlands; 2: Norut, Norway*
- 15:10 Towards Routine Monitoring of Tectonic and Volcanic Deformation with Sentinel-1  
*Wright, Tim J (1); Biggs, Juliet (2); Crippa, Paula (3); Ebmeier, Susanna K. (2); Elliott, John (4); Gonzalez, Pablo (1); Hooper, Andy (1); Larsen, Yngvar (5); Li, Zhenhong (3); Marinkovic, Petar (6); Parsons, Barry (4); Walters, Richard (1); Ziebart, Marek (7) 1: COMET, University of Leeds, United Kingdom; 2: COMET, University of Bristol, United Kingdom; 3: COMET, University of Newcastle, United Kingdom; 4: COMET, University of Oxford, United Kingdom; 5: Norut, Norway; 6: PPO.Labs, The Netherlands; 7: COMET, University College London, United Kingdom*
- 15:30 Sentinel-1 InSAR Quality Control: deformation monitoring application perspective  
*Marinkovic, Petar (1); Larsen, Yngvar (2); Perski, Zbigniew (3) 1: PPO.labs, The Netherlands; 2: Norut, Norway; 3: Polish Geological Institute - National Research Institute, Poland*
- 15:50 An Efficient Sentinel-1 TOPS SBAS-DInSAR Processing Chain

- Manunta, Michele; Berardino, Paolo; Bonano, Manuela; De Luca, Claudio; Elefante, Stefano; Fusco, Adele; Lanari, Riccardo; Manzo, Mariarosaria; Pepe, Antonio; Sansosti, Eugenio; Zinno, Ivana; Casu, Francesco IREA-CNR, Italy
- 16:10 Round Table
- 16:40 Coffee Break
- 1.1.4.0 Copernicus Programme Overview (Big Hall 17:00-17:15)**
- 17:00 Copernicus Programme Overview  
Roboz, Andras European Commission
- 1.1.4 International Initiatives (Big Hall 17:15-19:35)**  
Chairs: Fialko, Yuri / Salvi, Stefano
- 17:15 SAR Archive and Community Support Activities at UNAVCO  
Baker, Scott (1); Crosby, Christopher (1); Meertens, Charles (1); Fielding, Eric Jameson (2); Bryson, Gwendolyn (3); Buechler, Brian (3); Nicoll, Jeremy (3); Baru, Chaitanya (4) 1: UNAVCO, Boulder, CO, USA; 2: Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA, USA; 3: Alaska Satellite Facility, University of Alaska Fairbanks, Fairbanks, AK, USA; 4: San Diego Supercomputer Center, UC San Diego, La Jolla, CA, USA
- 17:35 InSAR results from the WInSAR Consortium  
Pritchard, Matt (1); Fielding, Eric Jameson (2); Wdowinski, Shimon (3); Baker, Scott (4); members, WInSAR (5); Zhong, Lu (5) 1: Cornell University, United States of America; 2: Jet Propulsion Lab, Caltech, United States of America; 3: University of Miami, United States of America; 4: UNAVCO, Inc., United States of America; 5: Various Institutions
- 17:55 The Geohazard Supersites and Natural Laboratories - GSNL Initiative 2.0: Rapid Uptake of New Science in Disaster Risk Management  
Salvi, Stefano Supersite Advisory Committee (Chair) and INGV, Italy
- 18:15 The Italian Supersites volcanoes: a long-term monitoring experiment in active volcanic areas prone to natural hazard  
Borgstrom, Sven (1); Buongiorno, Fabrizia (2); Camacho, Antonio (3); Del Gaudio, Carlo (1); De Martino, Prospero (1); Guglielmino, Francesco (4); Lanari, Riccardo (5); Pepe, Antonio (5); Puglisi, Giuseppe (4); Silvestri, Malvina (2); Siniscalchi, Valeria (1); Fernandez, Jose (3) 1: Istituto Nazionale di Geofisica e Vulcanologia - Sezione di Napoli "Osservatorio Vesuviano", Italy; 2: Istituto Nazionale di Geofisica e Vulcanologia - Centro Nazionale Terremoti, Italy; 3: Instituto de Geociencias (IGEO) - CSIC-UCM, Spain; 4: Istituto Nazionale di Geofisica e Vulcanologia - Sezione di Catania
- 18:35 "Osservatorio Etno", Italy; 5: Istituto per il Rilevamento Elettromagnetico dell'Ambiente - Consiglio Nazionale delle Ricerche, Italy
- 18:35 Satellite Monitoring of the 2014 Dyke Intrusion and Eruption within the Bárðarbunga Volcanic System, facilitated by the CEOS Icelandic SUPERSITE  
Parks, Michelle M (1); Dumont, Stéphanie (1); Drouin, Vincent (1); Sigmundsson, Freysteinn (1); Spaans, Karsten (2); Hooper, Andrew (2); Árnadóttir, Thóra (1); Heimisson, Elías Rafn (1); Ófeigsson, Benedikt (3); Hreinsdóttir, Sigrún (4); Friðriksdóttir, Hildur María (1,3); Magnússon, Eyjólfur (1); Vogfjörð, Kristín S (3); Guðmundsson, Gunnar B (3); Jónsdóttir, Kristín (3); Hensch, Martin (3); Brandsdóttir, Bryndís (1); Samsonov, Sergey (5); Jónsdóttir, Ingibjörg (1); Gudmundsson, Magnús T (1); Högnadóttir, Thórdís (1); Einarsson, Páll (1); Hjartardóttir, Ásta Rut (1); Michalczewska, Karolina (1); Hjaltadóttir, Sigurlaug (1,3); Sturkell, Erik (6) 1: Nordic Volcanological Center, Institute of Earth Sciences, University of Iceland, IS-101 Reykjavik, Iceland; 2: COMET, School of Earth and Environment, University of Leeds, Leeds, LS2 9JT, UK; 3: Icelandic Meteorological Office, IS-150 Reykjavik, Iceland; 4: GNS Science, Avalon 5010, Lower Hutt, New Zealand; 5: Canada Centre for Mapping and Earth Observation, Natural Resources Canada, 560 Rochester Street, Ottawa, ON K1A 0E4 Canada; 6: University of Gothenburg, SE-405 30 Gothenburg, Sweden
- 18:55 The FP7 Marsite Project as a Supersite Initiative: Exploitation of X-Band InSAR Results for Surface Deformation Analysis over the Istanbul Area  
Solaro, Giuseppe (1); Nobile, Adriano (2); Bonano, Manuela (1); Salvi, Stefano (3); Manzo, Mariarosaria (1); Merryman Boncori, John Peter (3) 1: IREA-CNR, Italy; 2: Royal Museum for Central Africa, Tervuren, Belgium; 3: INGV, CNT, Rome, Italy
- 19:15 Using SAR and GPS for Hazard Management and Response: Progress and Examples from the Advanced Rapid Imaging and Analysis (ARIA) Project  
Simons, Mark (1); Owen, Susan (2); Hua, Hook (2); Yun, Sang-Ho (2); Agram, Piyush (2); Sacco, Gian Franco (2); Webb, Frank (2); Rosen, Paul (2); Lundgren, Paul (2); Fielding, Eric Jameson (2); Manipon, Gerald (2); Moore, Angelyn (2); Liu, Zhen (2); Milillo, Pietro (1,3); Riel, Bryan Valmonte (1); Milillo, Giovanni (4); Cruz, Jennifer (2); Polet, Jascha (1); Samsonov, Sergey (5) 1: Caltech, United States of America; 2: Jet Propulsion Laboratory / Caltech, United States of America; 3: University of Basilicata, Italy; 4: ASI/CIDOT, Italy; 5: Canada Centre for Remote Sensing, Natural Resources Canada

#### **1.2.4 Coherence Exploitation (Magellan 17:15-19:25)**

*Chairs: Wegmüller, Urs / Foumelis, Michael*

- 17:15 On the Estimation and Interpretation of Sentinel-1 TOPS InSAR Coherence  
*Wegmüller, Urs; Santoro, Maurizio; Werner, Charles Gamma Remote Sensing AG, Switzerland*
- 17:35 Analysis of the Time Evolution of Temporal Coherence using COSMO-SkyMed HH and VV data  
*Balbarani, Sebastián (1); Euillades, Pablo Andrés (1); Euillades, Leonardo Daniel (1); Riveros, Natalia Cecilia (2) 1: Instituto CEDIAC - FI - Universidad Nacional de Cuyo & CONICET; 2: Instituto CEDIAC - FI - Universidad Nacional de Cuyo*
- 17:55 Tree Height Analysis in TanDEM-X Data Using Frequency Domain Coherence  
*Bollian, Tobias (1); Thiele, Antje (2,3); Hinz, Stefan (2); Meyer, Franz Josef (4) 1: European Space Research and Technology Centre (ESTEC), The Netherlands; 2: Karlsruhe Institute of Technology (KIT), Germany; 3: Fraunhofer Institute of Optronics, System Technologies and Image Exploitation (IOSB), Germany; 4: University of Alaska Fairbanks (UAF), USA*
- 18:15 Moving from Temporal Coherence to Decorrelation Time of Interferometric Measurements Exploiting ESA's SAR Archive  
*Foumelis, Michael (1); Mitraka, Zina (2); Cuccu, Roberto (3); Desnos, Yves-Louis (4); Engdahl, Marcus (4) 1: RSAC c/o ESA-ESRIN, Italy; 2: Foundation for Research and Technology – Hellas (FORTH), Greece; 3: ESA Research and Service Support, Italy; 4: ESA, Italy*
- 18:35 Interferometric Coherence for Rapid Disaster Response  
*Yun, Sang-Ho (1); Milillo, Pietro (2); Simons, Mark (3); Owen, Susan (1); Webb, Frank (1); Fielding, Eric Jameson (1); Hua, Hook (1); Milillo, Giovanni (4); Coletta, Alessandro (4); Rosen, Paul (1); Dini, Luigi (4) 1: NASA - JPL, United States of America; 2: University of Basilicata, Italy; 3: California Institute of Technology, United States of America; 4: Italian Space Agency (ASI), Italy*
- 18:55 Round Table

## Oral Presentations Tuesday 24 March 2015

**2.1.1 InSAR Theory and Techniques (1) (Big Hall 09:00-11:00)**

Chairs: Bamler, Richard / Monti Guarnieri, Andrea

- 09:00 Constructing high-resolution, absolute maps of atmospheric water vapor by combining InSAR and GNSS observations  
*Alshawaf, Fadwa Karlsruhe Institute of Technology, Germany*
- 09:20 Phase inconsistencies and water effects in SAR interferometric stacks  
*De Zan, Francesco; Zonno, Mariantonietta; López-Dekker, Paco; Parizzi, Alessandro German Aerospace Center (DLR), Germany*
- 09:40 Evaluation of Atmospheric Phase Screens by Adaptive Common-Scene Stacking of Dense InSAR Data Sets  
*Fialko, Yuri; Tymofeyeva, Ekaterina UCSD, United States of America*
- 10:00 Statistical Comparison of Troposphere Correction Methods for InSAR  
*Bekaert, David (1); Walters, Richard J. (1); Hooper, Andrew J. (1); Wright, Tim J. (1); Parker, Doug J. (2) 1: COMET, University of Leeds, United Kingdom; 2: University of Leeds, United Kingdom*
- 10:20 A generalization of the SBAS approach to estimate the temporal evolution of Precipitable Water Vapour from time-series of InSAR interferograms  
*Pasquini, Cecilia (1); Nico, Giovanni (2); Ruggiero, Valeria (3); Mateus, Pedro (4); Catalao, Joao (5); Sacco, Patrizia (6) 1: Università degli Studi di Trento, Dipartimento di Ingegneria e Scienze dell'Informazione, Italy; 2: Consiglio Nazionale delle Ricerche, Italy; 3: Università degli Studi di Ferrara, Dipartimento di Matematica e Informatica, Italy; 4: Instituto Nacional de Pesquisas Espaciais, Brasil; 5: Universidade de Lisboa, IDL, Portugal; 6: Agenzia Spaziale Italiana, Italy*
- 10:40 A Global Model for Ionospheric Phase Noise in Low-Frequency SAR and InSAR Data  
*Meyer, Franz Josef (1); Agram, Piyush (2) 1: University of Alaska Fairbanks, United States of America; 2: Jet Propulsion Laboratory, United States of America*

11:00 Coffee Break

**2.1.2 InSAR Theory and Techniques (2) (Big Hall 11:30-13:40)**

Chairs: Rocca, Fabio / Eineder, Michael

- 11:30 InSAR Forensics: Tracing InSAR Scatterers in High Resolution Optical Image  
*Wang, Yuanyuan (1); Zhu, Xiao Xiang (1,2) 1: Helmholtz Young Investigators Group "SiPEO", Technische Universität München, Arcisstraße 21,*

*80333 Munich, Germany; 2: Remote Sensing Technology Institute, German Aerospace Center, Oberpfaffenhofen, 82234 Weßling, Germany*

- 11:50 Split-Band Interferometric SAR Processing Using TanDEM-X Data  
*De Rauw, Dominique (1); Kervyn, François (2); d'Oreye, Nicolas (3,4); Smets, Benoit (2,3,5); Albino, Fabien (2); Barbier, Christian (1) 1: Centre Spatial de Liège, Belgium; 2: Royal Museum of Central Africa, Belgium; 3: European Center For Geodynamics and Seismology, Luxembourg; 4: National Museum of Natural History, Luxembourg; 5: Vrije Universiteit Brussel, Belgium*
- 12:10 Tomographic processing of AlpTomoSAR airborne data for observing the internal structure of Alpine glaciers: algorithm description, challenges, and future perspectives.  
*Tebaldini, Stefano (1); Nagler, Thomas (2); Meta, Adriano (3); Coccia, Alex (3) 1: Politecnico di Milano, Italy; 2: ENVEO; 3: MetaSensing*
- 12:30 A Global Validation of ERA-Interim Atmospheric Correction for InSAR  
*Walters, Richard J (1); Bekaert, David (1); Wright, Tim J (1); Parker, Doug J (2); Hooper, Andy J (1); Crippa, Paola (3); Li, Zhenhong (3) 1: COMET, University of Leeds, United Kingdom; 2: University of Leeds, United Kingdom; 3: COMET, University of Newcastle, United Kingdom*
- 12:50 Advanced Characterization Methods of Height-Varying Short- and Long-Term Forest TomoSAR Temporal Decorrelation  
*Lombardini, Fabrizio (1,2); Viviani, Federico (1,2) 1: University of Pisa, Italy; 2: CNIT/RaSS Nat. Lab., Italy*
- 13:10 Round Table
- 13:40 Lunch Break

**2.1.3 PSI and DInSAR (1) (Big Hall 14:50-17:00)**

Chairs: Marinkovic, Petar / Adam, Nico

- 14:50 Strategies for Measuring Large Scale Ground Surface Deformations: PSI Wide Area Product Approaches  
*Duro, Javier (1); Iglesias, Rubén (1); Blanco-Sánchez, Pablo (1); Albiol, David (1); Wright, Tim (2); Adam, Nico (3); Rodriguez Gonzalez, Fernando (3); Brcic, Ramon (3); Parizzi, Alessandro (3); Novali, Fabrizio (4); Bally, Phillippe (5) 1: Altamira-Information, Spain; 2: School of Earth and Environment, University of Leeds, United Kingdom; 3: German Aerospace Center (DLR), Remote Sensing Technology Institute, Germany; 4: Telerilevamento-Europa. Italy; 5: European Space Agency, ESRIN, Italy*
- 15:10 Persistent scatterer pair (PSP) Interferometry and Surface Reconstruction Techniques for

- Urban DSM from High Resolution Satellite SAR Acquisitions  
*Costantini, Mario e-GEOS - Italian Space Agency/Telespazio, Italy*
- 15:30 Advanced InSAR Processing in the Footsteps of SqueeSAR  
*Even, Markus Fraunhofer IOSB, Germany*
- 15:50 The PSIG approach to Persistent Scatterer Interferometry  
*Devanthery, N ria (1); Crosetto, Michele (1); Monserrat, Oriol (1); Cuevas-Gonz lez, Mar a (1); Crippa, Bruno (2) 1: CTTC, Spain; 2: University of Milan*
- 16:10 Combining InSAR, Levelling and GNSS for the Estimation of 3D Surface Displacements  
*Fuhrmann, Thomas (1); Caro Cuenca, Miguel (2); van Leijen, Freek (3); Westerhaus, Malte (1); Hanssen, Ramon (3); Heck, Bernhard (1) 1: Geodetic Institute, Karlsruhe Institute of Technology, Germany; 2: Department of Radar Technology, TNO, The Netherlands; 3: Department of Geoscience and Remote Sensing, Delft University of Technology, The Netherlands*
- 16:30 Round Table

## Poster session 1

### 2.2.1 Applications: Cryosphere (1) (Magellan 09:00-11:00)

*Chairs: Nagler, Thomas / Rignot, Eric*

- 09:00 Observations of ice surface velocity of Greenland outlet glaciers by Sentinel-1  
*Nagler, Thomas; Hetzenecker, Markus; Rott, Helmut; Wuite, Jan ENVEO IT GmbH, Austria*
- 09:20 Ice sheet instability in north-east Greenland - or lack thereof.  
*Rignot, Eric (1,2); Mouginit, Jeremie (1); Scheuchl, Bernd (1); Buzzi, Arnaud (1); Millan, Romain (1) 1: UC Irvine, United States of America; 2: Caltech's Jet Propulsion Laboratory*
- 09:40 A first look at the performance of Sentinel-1 over the West Antarctic Ice Sheet  
*Hogg, Anna (1); Shepherd, Andrew (1); Gourmelen, Noel (2) 1: University of Leeds, United Kingdom; 2: University of Edinburgh, United Kingdom*
- 10:00 Ice Velocity Mapping Using TOPS SAR Data and Offset Tracking  
*Dall, J rgen (1); Kusk, Anders (1); Nielsen, Ulrik (1); Merryman Boncori, John Peter (2) 1: Technical University of Denmark, Denmark; 2: Istituto Nazionale di Geofisica e Vulcanologia, Italy*
- 10:20 Sustained flux increase and grounding line retreat of Amundsen Sea Sector, West Antarctica between 1973 and 2015 using remote sensing data.  
*Mouginit, Jeremie (1); Rignot, Eric (1,2); Scheuchl, Bernd (1) 1: University of California -*

- Irvine, United States of America; 2: Jet Propulsion Laboratory, United States of America*
- 10:40 Rapid dynamic activation of a marine-based Arctic ice cap  
*Gourmelen, Noel (1); McMillan, Malcolm (2); Shepherd, Andrew (2,3); Dehecq, Amaury (4); Leeson, Amber (2); Ridout, Andrew (3); Flament, Thomas (2); Hogg, Anna (2); Gilbert, Lin (3); Benham, Toby (5); van den Broeke, Michiel (6); Dowdeswell, Julian A. (5); Fettweis, Xavier (7); No l, Brice (6); Strozzi, Tazio (8) 1: University of Edinburgh, United Kingdom; 2: University of Leeds, United Kingdom; 3: University College London, United Kingdom; 4: Universit  de Savoie, France; 5: University of Cambridge, United Kingdom; 6: Utrecht University, The Netherlands; 7: University of Li ge, Belgium; 8: GAMMA Remote Sensing Research and Consulting AG, Switzerland*

11:00 Coffee Break

### 2.2.2 Applications: Cryosphere (2) (Magellan 11:30-13:40)

*Chairs: Shepherd, Andrew / Gourmelen, Noel*

- 11:30 Changing Velocities and Elevation at Glaciers in Patagonia, Russia, and Alaska  
*Pritchard, Matt (1); Willis, Michael (1,2); Melkonian, Andrew (1); Elliott, Julie (3); Durkin, Joey (1) 1: Cornell University, United States of America; 2: University of North Carolina, United States of America; 3: Purdue University, United States of America*
- 11:50 Interferometric control for mapping and quantifying the 2011-14 breakup of Matusevich Ice Shelf, Severnaya Zemlya  
*Sharov, Aleksey (1); Nikolskiy, Dmitry (2); Troshko, Ksenia (3); Zaprudnova, Zinaida (3) 1: DIGITAL - Institute of Information and Communication Technologies, Joanneum Research, Graz, Austria; 2: SOVZOND Company, Moscow, Russian Federation; 3: Faculty of Geography, Lomonosov Moscow State University, Russian Federation*
- 12:10 Seasonal variability of surface velocities, elevation and volume changes of Columbia Glacier, Alaska using high-resolution TanDEM-X satellite time series data"  
*Vijay, Saurabh; Braun, Matthias FAU Erlangen, Germany*
- 12:30 Sensing the bed-rock movement due to ice unloading from space using InSAR time-series  
*Zhao, Wenliang; Amelung, Falk University of Miami, United States of America*
- 12:50 Understanding the response of ice streams to tidal forcing using short repeat time InSAR  
*Simons, Mark (1); Minchew, Brent (1); Milillo, Pietro (1,2); Riel, Bryan Valmonte (1); Agram, Piyush (3) 1: Caltech, United States of America; 2: University of Basilicata, Italy; 3: Jet*

*Propulsion Laboratory/Caltech, United States of America*

13:10 Round Table

13:40 Lunch Break

*Eckelmann, Felix; Moreno, Marcos; Metzger, Sabrina; Oncken, Onno GFZ German Research Centre for Geosciences, Germany*

16:30 Round Table

### Poster session 1

### 2.2.3 Applications: Earthquakes and Tectonics (1) (Magellan 14:50-17:00)

*Chairs: Wright, Tim J / Fialko, Yuri*

- 14:50 Assessment of ScanSAR Interferometry from Sentinel-1 and ALOS-2  
*Sandwell, David T. (1); Xu, Xiaohua (1); Tong, Xiaopeng (2) 1: Scripps Institution of Oceanography, United States of America; 2: University of Washington, United States of America*
- 15:10 California 2014 Earthquake Deformation Imaged with InSAR Time Series: La Habra and South Napa  
*Fielding, Eric Jameson (1); Milillo, Pietro (2); Bürgmann, Roland (3); Yun, Sang-Ho (1); Liu, Zhen (1); Samsonov, Sergey (4); Agram, Piyush S. (1); Milillo, Giovanni (5) 1: Jet Propulsion Lab, Caltech, Pasadena, Calif., USA; 2: University of Basilicata, Potenza, Italy; 3: University of California, Berkeley, California, USA; 4: Natural Resources Canada, Ottawa, Ontario, Canada; 5: Italian Space Agency CIDOT, Matera, Italy*
- 15:30 Probing the 2014 Mw 6.0 South Napa (California) earthquake and postseismic deformation with Sentinel-1 InSAR and GPS  
*Elliott, John (1); Floyd, Mike (2); Funning, Gareth (3); Hooper, Andy (4); Larsen, Yngvar (5); Marinkovic, Petar (6); Plain, Morgan (4); Samsonov, Sergey (7); Walters, Richard (4); Wright, Tim (4) 1: COMET, Department of Earth Sciences, University of Oxford, United Kingdom; 2: Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology, United States; 3: Department of Earth Sciences, UC Riverside, United States; 4: COMET, School of Earth and Environment, University of Leeds, United Kingdom; 5: Norut, Norway; 6: PPO.labs, The Netherlands; 7: Natural Resources Canada, Ottawa, Ontario, Canada.*
- 15:50 Surface Deformation Analysis of 2014 Napa Earthquake Retrieved Through SAR Techniques  
*Solaro, Giuseppe (1); Castaldo, Raffaele (1); De Luca, Claudio (1,2); Samsonov, Sergey (3); Casu, Francesco (1) 1: IREA-CNR, Naples, Italy; 2: Università degli Studi di Napoli "Federico II", DIETI, Naples, Italy; 3: Canada Centre for Mapping and Earth Observation, Ottawa, Canada*
- 16:10 Co- And Post-Seismic Displacement Field Of The Pisagua Earthquake 2014 based On InSAR And GPS Data



## Oral Presentations Wednesday 25 March 2015

**3.1.1 Applications: Earthquakes and Tectonics (2) (Big****Hall 09:00-10:40)**

Chairs: Parsons, Barry / Elliott, John

- 09:00 A Strike-slip Dominated Fault Rupture of the Sept. 24, 2013 Mw 7.7 Awaran, Pakistan Earthquake And Its First-year Post-seismic Deformation Revealed by Landsat-8 Imagery And TerraSAR-X Data  
*Sun, Jianbao Institute of Geology, China Earthquake Administration, China, People's Republic of*
- 09:20 Improving SAR-image Offsets by Considering Scattering Characteristics: Application to Coseismic Displacement Mapping  
*Wang, Teng; Jónsson, Sigurjón King Abdullah University of Science and Technology, Saudi Arabia*
- 09:40 Refining the Shallow Slip Deficit  
*Xu, Xiaohua (1); Tong, Xiaopeng (2); Sandwell, David T. (1); Milliner, Christopher W.D. (3); Dolan, James F. (3); Hollingsworth, James (4); Leprince, Sebastien (5); Ayoub, Francois (5) 1: Scripps Institution of Oceanography, United States of America; 2: University of Washington, United States of America; 3: University of Southern California, United States of America; 4: ARUP consulting, London, UK; 5: California Institute of Technology, United States of America*
- 10:00 Extensional Tectonics and Volcanism in the Red Sea Region observed by InSAR  
*Jonsson, Sigurjon; Xu, Wenbin; Ruch, Joel; Dutta, Rishabh; Wang, Teng; Bathke, Hannes; Feng, Guangcai King Abdullah University of Science and Technology (KAUST), Saudi Arabia*
- 10:20 Time Series Analysis of InSAR Data Over the Asal Rift, Djibouti Using Radarsat-1 and COSMO-SkyMed Data.  
*Peltzer, Gilles (1,2); Milillo, Pietro (3,4); Sangha, Simran (1,2) 1: University of California, Los Angeles, United States of America; 2: Jet Propulsion Laboratory, California Institute of Technology, United States of America; 3: Seismological laboratory - California institute of Technology, Pasadena - USA; 4: Università della Basilicata – Potenza, Italy*

10:40 Coffee Break

**3.1.2 Applications: Earthquakes and Tectonics (3) (Big****Hall 11:10-13:10)**

Chairs: Sun, Jianbao / Fielding, Eric Jameson

- 11:10 An Atmospherically Corrected DInSAR SBAS Network and its Decomposition into a 3D Field Vector for Tectonic Deformation Detection over the Hyblean Plateau, Italy

*Vollrath, Andreas (1); Zucca, Francesco (1); Stramondo, Salvatore (2); Bonforte, Alessandro (3); Guglielmino, Francesco (3); Bekaert, David (4); Hooper, Andrew (4) 1: Università di Pavia, Italy; 2: Istituto Nazionale per Geofisica e Vulcanologia INGV; 3: Istituto Nazionale per Geofisica e Vulcanologia INGV, Osservatorio Etno; 4: University of Leeds, COMET, School of Earth and Environment*

- 11:30 The Transient Behavior of the North Anatolian Fault Creeping Section seen by COSMO-SkyMed (TM) Acquisitions  
*Rousset, Baptiste (1); Jolivet, Romain (2); Riel, Bryan Valmonte (3); Milillo, Pietro (4,5); Simons, Mark (3); Lasserre, Cécile (1); Çakir, Ziadyn (6) 1: ISTERre, Université Grenoble Alpes, CNRS, Grenoble, France; 2: Bullard Laboratories, Department of Earth Sciences, University of Cambridge, Cambridge, UK; 3: Seismological Laboratory, Department of Geological and Planetary Sciences, California Institute of Technology, Pasadena, USA; 4: Jet Propulsion Laboratory, California Institute of Technology, Pasadena, USA; 5: Scuola di Ingegneria, Università degli studi della Basilicata, Potenza, Italy; 6: Istanbul Technical University, Faculty of Mines, Department of Geology, Istanbul, Turkey*

- 11:50 The Relationship Between Coseismic Slip and Shallow Fault Creep After the 1999 Izmit and Duzce Earthquakes  
*Hussain, Ekbal; Wright, Tim; Houseman, Gregory; Walters, Richard; Bekaert, David University of Leeds, United Kingdom*

- 12:10 Block-like plate movements in eastern Anatolia observed by InSAR  
*Cavalié, Olivier (1); Jonsson, Sigurjon (2) 1: Géoazur, Université de Nice, France; 2: King Abdullah University of Science and Technology, Saudi Arabia*

- 12:30 Studying Fault Activation by using Seismic and InSAR Data for the 2012 Ahar-Varzeghan Mw 6.4 and 6.2 Earthquake Doublet in NE Iran  
*Sudhaus, Henriette (1); Donner, Stefanie (2); Krueger, Frank (1); Ghods, Abdolreza (3); Roessler, Dirk (4); Landgraf, Angela (1); Ballato, Paolo (1) 1: University of Potsdam, Germany; 2: Ludwig-Maximilians University Munich, Germany; 3: Institute of Advanced Studies in Basic Sciences, Zanjan, Iran; 4: GFZ German Centre for Geosciences*

- 12:50 Geodetic Insights into the Growth and Evolution of Thrust Belts: Examples from East Iran  
*Copley, Alex; Reynolds, Kirsty University of Cambridge, United Kingdom*

13:10 Lunch Break

**3.1.3 Applications: Earthquakes and Tectonics (4) (Big Hall 14:30-16:30)**

Chairs: Peltzer, Gilles / Parsons, Barry

- 14:30 Interseismic deformation of anticlines in an active foreland fold and thrust belt measured from ALOS-1 InSAR and GPS: the Southwestern Taiwan case  
*Pathier, Erwan (1); Fruneau, Bénédicte (2); Hu, Jyr-Ching (3); Doin, Marie-Pierre (1); Liao, Yu-Tzu (3); Champenois, Johann (1) 1: University of Grenoble, France; 2: University of Paris-Est Marne-La-Vallée, France; 3: National Taiwan University, Taiwan*
- 14:50 Interseismic strain accumulation in the Kashi Depression (Tianshan, China) from atmosphere-corrected InSAR measurements  
*Wen, Yangmao; He, Ping; Xu, Caijun; Liu, Yang School of Geodesy and Geomatics, Wuhan University*
- 15:10 Multi-temporal InSAR measurement of interseismic motion on the eastern Tibet border  
*Doin, Marie-Pierre (1); Lasserre, Cécile (1); He, Pengchao (2); De Sigoyer, Julia (1); Replumaz, Anne (1) 1: ISTerre, UJF, CNRS, Grenoble, France; 2: Department of Geophysics, School of Earth and Space Sciences, Peking University, Beijing, China*
- 15:30 Measure by radar interferometry (InSAR) of intracontinental deformation in Tibet: the case example of the Altyn Tagh Fault  
*DAOUT, Simon (1); DOIN, Marie-Pierre (1); LASSERRE, Cécile (1); PELTZER, Gilles (2); Sun, Jianbao (3); Shen, Zhen-Kang (4); Xu, Xiwei (3) 1: ISTerre, Grenoble, France; 2: University of California, USA; 3: Institute of Geology, CEA, Beijing, China; 4: Peking University, School of Earth and Space Science, Beijing, China*
- 15:50 Interseismic crustal deformation in south-central Tibet from InSAR and GPS  
*Wang, Hua (1); Wright, Tim (2); Liu-Zeng, Jing (3) 1: Department of Surveying Engineering, Guangdong University of Technology, China, People's Republic of; 2: School of Earth and Environment, University of Leeds, UK; 3: Institute of Geology, China Earthquake Administration, China*
- 16:10 Interseismic deformation along the Calaveras fault and refining the geometry of the Hayward-Calaveras stepover  
*Chaussard, Estelle (1); Bürgmann, Roland (1); Fattahi, Heresh (2); Johnson, Chris (1); Nadeau, Robert (1); Johanson, Ingrid (1) 1: UC Berkeley, United States of America; 2: University of Miami, FL, United States of America*
- 16:30 Coffee Break
- 3.1.4 Applications: Earthquakes and Tectonics (5) (Big Hall 17:10-19:20)**  
*Chairs: Fielding, Eric Jameson / Jonsson, Sigurjon*
- 17:10 Quantifying the Extent of Fault Coupling and Aseismic Slip along the Central San Andreas Fault: a Bayesian Approach  
*Jolivet, Romain (1); Simons, Mark (2); Agram, Piyush (3); Duputel, Zacharie (4); Shen, Zheng-Kang (5) 1: Bullard Laboratories, Department of Earth Sciences, University of Cambridge, Madingley Road, CB3 0EZ, Cambridge, UK.; 2: Seismological Laboratory, Division of Geological and Planetary Sciences, California Institute of Technology, 1200 E California Blvd, Pasadena, CA 91125, USA; 3: Jet Propulsion Laboratory / Caltech, USA; 4: Institut de Physique du Globe de Strasbourg, Uds and EOST/CNRS UMR 7516, France; 5: Department of Earth and Space Sciences, University of California, Los Angeles, 595 Charles Young Drive East, Los Angeles, CA 90095-1567, USA.*
- 17:30 The ICMT Catalogue: A 20-year Compilation of Earthquake Source Parameters from Published InSAR Studies  
*Funning, Gareth J (1); Ferreira, Ana M G (2); Weston, Jennifer (3); Shakibay Senobari, Nader (1) 1: University of California, Riverside, United States of America; 2: University College, London, United Kingdom; 3: Arizona State University, United States of America*
- 17:50 Mid-term review results of the ESA STSE Pathfinder CHARMING project (Constraining Seismic Hazard Models with InSAR and GPS)  
*Merryman Boncori, John Peter (1); Devoti, Roberto (1); Visini, Francesco (1); Atzori, Simone (1); Pezzo, Giuseppe (1); Kastelic, Vanja (1); Carafa, Michele Matteo Cosimo (1); Bernardino, Paolo (2); Fornaro, Gianfranco (2); Riguzzi, Federica (1); Pietrantonio, Grazia (1); D'Amico, Vera (1); Meletti, Carlo (1); Salvi, Stefano (1); Fernandez Prieto, Diego (3) 1: Istituto Nazionale di Geofisica e Vulcanologia (INGV), Via di Vigna Murata 605, 00143 Rome, Italy; 2: Istituto per il Rilevamento Elettromagnetico dell'Ambiente (IREA), Via Diocleziano 328, 80124 Naples, Italy; 3: ESA-ESRIN, Via Galileo Galilei, Casella Postale 64, 00044 Frascati, Italy*
- 18:10 Gravitational deformation after the April 6 2009 L'Aquila Earthquake detected by CosmoSkyMed  
*Bignami, Christian (1); Albano, Matteo (1); Costantini, Mario (2); Malvarosa, Fabio (2); Moro, Marco (1); Saroli, Michele (3); Stramondo, Salvatore (1) 1: Istituto Nazionale di Geofisica e Vulcanologia, Italy; 2: E-GEOS S.p.A.; 3: University of Cassino and Southern Lazio*
- 18:30 Surface liquefaction effects detected and measured by DInSAR: 2012 Emilia (Italy) earthquake  
*Chini, Marco (1); Albano, Matteo (2); Saroli, Michele (3); Pulvirenti, Luca (4); Moro, Marco (2); Bignami, Christian (2); Falcucci, Emanuela (2); Gori, Stefano (2); Modoni, Giuseppe (3); Pierdicca, Nazzareno (5); Stramondo, Salvatore (2) 1: Centre de Recherche Public - Gabriel Lippmann, Luxembourg; 2: Istituto Nazionale di Geofisica e Vulcanologia, Italy; 3: University of*

Cassino and Southern Lazio, Italy; 4: CIMA Research Foundation, Italy; 5: Sapienza University of Rome, Italy

18:50 Round Table

### 3.2.1 PSI and DInSAR (2) (Magellan 09:00-10:40)

Chairs: Crosetto, Michele / Casu, Francesco

09:00 A Minimum Curvature Combination Method for the Generation of Multi-platform DInSAR Deformation Time-Series  
Pepe, Antonio (1); Solaro, Giuseppe (1); Dema, Claudio (2) 1: IREA, Italy; 2: Università della Basilicata, Italy

09:20 Demonstration of TerraSAR-X ScanSAR Persistent Scatterer Interferometry  
Rodriguez Gonzalez, Fernando (1); Brcic, Ramon (1); Yague-Martinez, Nestor (1,2); Shau, Robert (1); Parizzi, Alessandro (1); Adam, Nico (1) 1: German Aerospace Center (DLR), Germany; 2: Technical University Munich (TUM), Germany

09:40 Towards the Integration of SAR Tomography and PSI for Improved Deformation Assessment in Urban Areas  
Siddique, Muhammad Adnan (1); Hajnsek, Irena (1,2); Wegmüller, Urs (3); Frey, Othmar (1,3) 1: Earth Observation and Remote Sensing, ETH Zurich, Switzerland; 2: German Aerospace Center - DLR, Germany; 3: Gamma Remote Sensing AG, Switzerland

10:00 Deformation Monitoring of Urban Infrastructure by Tomographic SAR using Multi-view TerraSAR-X Data Stacks  
Montazeri, Sina (1); Zhu, Xiao Xiang (1,2); Eineder, Michael (1); Hanssen, Ramon (3); Bamler, Richard (1,2) 1: Remote Sensing Technology Institute (IMF), German Aerospace Center (DLR), Oberpfaffenhofen, 82234 Wessling, Germany; 2: Helmholtz Young Investigators Group "SiPEO", Chair of Remote Sensing Technology, Technische Universität München (TUM); 3: Department of Geoscience and Remote Sensing, Delft University of Technology

10:20 Earthquake Damage Mapping using the Coherence of Persistent Scatterers  
Wegmüller, Urs; Strozzi, Tazio; Werner, Charles  
Gamma Remote Sensing AG, Switzerland

10:40 Coffee Break

### 3.2.2 PSI and DInSAR (3) (Magellan 11:10-13:20)

Chairs: Hanssen, Ramon F / Perissin, Daniele

11:10 Big Data Processing for Nationwide Ground Deformation Monitoring by Persistent Scatterer Interferometry  
Costantini, Mario e-GEOS - Italian Space Agency/Telespazio, Italy

11:30 A Cloud Computing Approach for Big DInSAR Data Processing through the P-SBAS Algorithm

Zinno, Ivana (1); Elefante, Stefano (1); Mossucca, Lorenzo (2); De Luca, Claudio (1,3); Manunta, Michele (1); Terzo, Olivier (2); Lanari, Riccardo (1); Casu, Francesco (1) 1: CNR - IREA, Italy; 2: Istituto Superiore Mario Boella; 3: Università degli studi di Napoli Federico II, DIETI

11:50 P-SBAS Service within ESA G-POD Platform for Unsupervised on Demand DInSAR Processing  
De Luca, Claudio (1,4); Cuccu, Roberto (2); Elefante, Stefano (1); Manunta, Michele (1); Zinno, Ivana (1); Rivolta, Giancarlo (2,3); Lanari, Riccardo (1); Casu, Francesco (1); Casola, Valentina (4) 1: IREA-CNR, Italy; 2: ESA Research and Service Support, Italy; 3: Progressive Systems Srl, Italy; 4: University of Napoli Federico II, Italy

12:10 Connecting InSAR to a global geodetic datum: Towards absolute scatterer displacements  
Mahapatra, Pooja; van der Marel, Hans; van Leijen, Freek; Samiei-Esfahany, Sami; Klees, Roland; Hanssen, Ramon Delft University of Technology, the Netherlands

12:30 A Probabilistic Approach for InSAR Time Series Post-processing  
Chang, Ling; Hanssen, Ramon F Delft University of Technology (TU Delft), the Netherlands

12:50 Round Table

13:20 Lunch Break

### 3.2.3 Applications: Mapping (Magellan 14:30-16:40)

Chairs: Solberg, Svein / Antropov, Oleg

14:30 Forest storm damage mapping with InSAR  
Solberg, Svein Norwegian Forest and Landscape Institute, Norway

14:50 TanDEM-X InSAR time series data in forest cover mapping in boreal zone  
Antropov, Oleg (1,2); Rauste, Yrjö (1); Häme, Tuomas (1); Praks, Jaan (2) 1: VTT Technical Research Centre of Finland, Finland; 2: Aalto University, Department of Radio Science and Engineering

15:10 Temporal tracking of rice paddy heights with TanDEM-X  
Rossi, Cristian (1); Erten, Esra (2) 1: German Aerospace Center (DLR), Germany; 2: Istanbul Technical University (ITU), Turkey

15:30 Bathymetric survey of small reservoirs based on Interferometry Synthetic Aperture Radar (InSAR) technique and TanDEM-X data  
Zhang, Shuping (1,2); Medeiros, Pedro (3); de Araújo, José Carlos (4); Waske, Björn (2); Foerster, Saskia (1) 1: GFZ German Research center for Geoscience, Potsdam, Germany; 2: Institute of Geographical Sciences, Free University of Berlin, Germany; 3: Federal Institute of Education, Science and Technology of Ceará, Maracanaú, Brazil; 4: Department of Agricultural Engineering, Federal University of Ceará, Brazil

- 15:50 Extraction of Subsurface Features from InSAR-derived Digital Elevation Models  
*Xiong, Siting; Muller, Jan-Peter Imaging Group, Mullard Space Science Laboratory (MSSL), University College London, Department of Space & Climate Physics, , Holmbury St Mary, Surrey, RH5 6NT, UK*
- 16:10 Round Table
- 16:40 Coffee Break
- 18:50 Round Table
- Department, GFZ Institute, Germany; 3: Iranian Space Research Institute, Remote Sensing and GIS Department, Tehran ,Iran; 4: Department of Civil Engineering, University of Science and Technology*

### 3.2.4 Applications: Subsidence and Landslides (1)

(Magellan 17:10-19:20)

*Chairs: Hooper, Andrew / Novali, Fabrizio*

- 17:10 Multi-temporal SAR Monitoring: exploiting both amplitude and phase information  
*Rucci, Alessio; Ferretti, Alessandro; Fumagalli, Alfio; Novali, Fabrizio TRE s.r.l., Italy*
- 17:30 Subsidence and associated shallow faulting hazard assessment in central Mexico using InSAR and GPS.  
*Cabral-Cano, Enrique (1); Solano-Rojas, Darío (2); Oliver, Talib (2); Wdowski, Shimon (2); Chaussard, Estelle (3); Salazar-Tlaczani, Luis (1); Cigna, Francesca (4); DeMets, Charles (5); Pacheco-Martínez, Jesús (6) 1: Universidad Nacional Autónoma de México, Mexico; 2: Rosenstiel School of Marine and Atmospheric Science, University of Miami; 3: Dept. of Earth and Planetary Science, University of California Berkeley; 4: British Geological Survey, Earth Hazards & Observatories, Earth and Planetary Observation and Monitoring; 5: Department of Geoscience, University of Wisconsin-Madison; 6: Departamento de Construcción y Estructuras, Universidad Autónoma de Aguascalientes*
- 17:50 A New Mode of Sinkhole Formation along the Dead Sea Shorelines (Israel): Observations from InSAR, LiDAR, Time-lapse Field Camera, and Water Analysis  
*Baer, Gidon (1); Avni, Yoav (1); Shviro, Maayan (2); Nof, Ran (3); Gavrieli, Ittai (1); Lensky, Nadav (1); Yechieli, Yoseph (1); Haviv, Itai (2); Dente, Elad (1,4) 1: Geological Survey of Israel, Israel; 2: Ben Gurion University of the Negev, Israel; 3: Geophysical Institute of Israel; 4: Hebrew University, Jerusalem, Israel*
- 18:10 Gazing at Grass: Estimating Surface Deformation over Fast-decorrelating Pasture using InSAR  
*Morishita, Yu (1,2); Hanssen, Ramon F (2) 1: Geospatial Information Authority of Japan (GSI); 2: Delft University of Technology (TU Delft), Netherlands, The*
- 18:30 Comparison of X-Band, L-Band and C-band Radar images in monitoring subsidence in agricultural area  
*Zohari, Moein (1,3); Motagh, Mehdi (2); Esmaili, Mostafa (1,3); Mojaradi, Barat (4) 1: Geomatics Department, College of Engineering, University of Tehran, Tehran, Iran; 2: Physics of the Earth*

## Oral Presentations Thursday 26 March 2015

**4.1.1 Applications: Subsidence and Landslides (2) (Big Hall 09:00-11:00)**

Chairs: Pasquali, Paolo / Catalão, João

- 09:00 Studying aquifer properties in the Los Angeles Basin using InSAR time-series  
Agram, Piyush (1); Simons, Mark (2); Jolivet, Romain (2,3) 1: JPL, United States of America; 2: Caltech, United States of America; 3: University of Cambridge, United Kingdom
- 09:20 Determining Aquifer Deformational Behavior: Madrid Aquifer Case Study  
Ezquerro, Pablo (1,2,5); Herrera, Gerardo (2,4,5); Marchamalo, Miguel (1,2,5); Tomas, Roberto (3,5,6); Bejar-Pizarro, Marta (2,3,5); Martínez, Rubén (1,5) 1: Technical University of Madrid. Laboratorio de Topografía y Geomática. ETSI Caminos, Canales y Puertos, Spain; 2: Geohazards InSAR laboratory and Modeling group (InSARlab), Geoscience research department, Geological Survey of Spain (IGME), Spain; 3: Unidad Asociada de investigación IGME-UA de movimientos del terreno mediante interferometría radar (UNIRAD), Spain; 4: Earth Observation and Geohazards Expert Group (EOEG), EuroGeoSurveys, the Geological Surveys of Europe, Belgium; 5: Grupo español de trabajo en subsidencia del terreno (SUBTER), UNESCO, Spain; 6: Departamento de Ingeniería Civil, Escuela Politécnica Superior, Universidad de Alicante, Spain
- 09:40 Ground Deformation Monitoring at Natural Gas Production Sites Using Interferometric SAR  
Goel, Kanika; Adam, Nico German Aerospace Center (DLR), Germany
- 10:00 Verification of Satellite Interferometry for Dam Surveillance  
Cetinic, Frano (1); Larsen, Yngvar (1,2); Lauknes, Tom Rune (1,2); Lier, Øyvind (3); Ekström, Ingvar (3) 1: Globesar, Norway; 2: Norut, Norway; 3: SWECO, Sweden
- 10:20 Merging Ground-based and spaceborne InSAR data to monitor an earth dam  
Mascolo, Luigi (1); Nico, Giovanni (2); Pitullo, Alfredo (3) 1: DIAN srl, Italy; 2: Consiglio Nazionale delle Ricerche, Italy; 3: Consorzio di Bonifica di Capitanata, Italy
- 10:40 Potential of Multi-temporal InSAR Techniques for Structural Health Monitoring  
Lazecky, Milan (1,2); Bakon, Matus (2,3); Sousa, Joaquim J. (2,4); Perissin, Daniele (5); Hlavacova, Ivana (6,2); Patricio, Gloria (7,8); Papco, Juraj (3) 1: IT4Innovations, VSB-TU Ostrava, 17. listopadu 15, 708 00 Ostrava-Poruba, Czech Republic; 2: Universidade de Tras-os-Montes e Alto Douro, UTAD, Quinta de Prados, 5000-801 Vila Real, Portugal; 3: Department of Theoretical Geodesy, Slovak University of Technology, Radlinskeho 11, 813 68 Bratislava, Slovakia; 4: INESC TEC - INESC

Technology and Science (formerly INESC Porto); 5: School of Civil Engineering, Purdue University, 550 Stadium Mall Drive, West Lafayette, IN47907, Office: HAMP 4106, USA; 6: Czech Technical University in Prague, Faculty of Civil Engineering, Thakurova 7, 166 29 Praha 6, Czech Republic; 7: Research Unit for Inland Development, Polytechnic Institute of Guarda, Av. Dr. Francisco Sa Carneiro nº50, 6300-559 Guarda, Portugal; 8: Departamento de Geociencias, Ambiente e Ordenamento do Território, Faculdade de Ciencias, Universidade do Porto, Portugal

11:00 Coffee Break

**4.1.2 Applications: Subsidence and Landslides (3) (Big Hall 11:30-13:30)**

Chairs: Strozzi, Tazio / Lauknes, Tom Rune

- 11:30 Improved PSI Performance for Landslide Monitoring Applications  
Duro, Javier; Iglesias, Rubén; Blanco-Sánchez, Pablo; Sánchez, Francisco; Albiol, David Altamira-Information, Spain
- 11:50 PSI for Landslide Hazard Assessment and Monitoring: Current Issues, Underexploited and Future Application Opportunities  
Wasowski, Janusz (1); Bovenga, Fabio (2); Nutricato, Raffaele (3); Nitti, Davide Oscar (3); Chiaradia, Maria Teresa (4) 1: CNR-IRPI, Italy; 2: CNR-ISSIA, Italy; 3: GAP srl, c/o Politecnico di Bari; 4: Politecnico di Bari
- 12:10 Evaluation of the Use of the sub-Pixel Offset Tracking Method with Conventional dInSAR Techniques to Monitor Landslides in Densely Vegetated Terrain in the Three Gorges Region, China  
Sun, Luyi; Muller, Jan-Peter Mullard Space Science Laboratory, Dept. of Space and Climate Physics, University College London, United Kingdom
- 12:30 Landslide Monitoring in Three Gorges Area by Joint Use of Phase Based and Amplitude Based Methods  
Shi, Xuguo (1); Zhang, Lu (1,2); Liao, Mingsheng (1,2); Balz, Timo (1,2) 1: Wuhan University, China, People's Republic of; 2: Collaborative Innovation Center for Geospatial Technology, China, People's Republic of
- 12:50 Slow-moving Landslide Monitoring with Multi-temporal TerraSAR-X data by means of dInSAR Techniques in Crotona Province (Southern Italy)  
Confuorto, Pierluigi (1); Plank, Simon (2); Di Martire, Diego (1); Calcaterra, Domenico (1); Thuro, Kuroschi (3); Ramondini, Massimo (1) 1: Federico II University of Napoli, Italy; 2: German Remote Sensing Data Center, (DFD), German Aerospace Center (DLR) (Germany); 3: Chair for Engineering Geology, Technische Universität München (TUM) (Germany)

13:10 Retrieving 3D deformation pattern of a landslide with hi-resolution InSAR and in-situ measurements: "Just landslide" case-study  
*Perski, Zbigniew (1); Wojciechowski, Tomasz (1); Marinkovic, Petar (2); Michalski, Andrzej (1); Chowaniec-Tobiasz, Katarzyna (1); Nescieruk, Piotr (1) 1: Polish Geological Institute - National Research Institute, Poland; 2: PPO.Labs, The Netherlands*

13:30 Lunch Break

#### 4.1.3 Applications: Subsidence and Landslides (4) (Big Hall 14:40-16:50)

*Chairs: Hooper, Andrew / Perski, Zbigniew*

14:40 InSAR Processing Challenges in Arctic Landscapes  
*Lauknes, Tom Rune (1); Larsen, Yngvar (1); Dehls, John (2) 1: Norut; 2: Geological Survey of Norway*

15:00 Glacier Lake and Slope Stability Monitoring  
*Strozzi, Tazio (1); Wiesmann, Andreas (1); Caduff, Rafael (1); Frey, Holger (2); Huggel, Christian (2); Kääh, Andreas (3) 1: Gamma Remote Sensing and Consulting AG, Switzerland; 2: Department of Geography, University of Zurich, Switzerland; 3: Department of Geosciences, University of Oslo, Norway*

15:20 Advanced Numerical Modelling for Slow Landslide Analyses through the Effective Integration of SBAS-DInSAR and in situ Observations: the Case Study of Ivancich Landslide (Assisi, Italy)  
*Castaldo, Raffaele (1); Tizzani, Pietro (1); De Novellis, Vincenzo (1); Lollino, Piernicola (2); Manunta, Michele (1) 1: IREA-CNR, Italy; 2: IRPI-CNR, Italy*

15:40 Three-dimensional Imaging for Rapid Motion of the Slumgullion Landslide, Colorado, with COSMO-SkyMed and UAVSAR  
*Fielding, Eric Jameson (1); Delbridge, Brent (2); Milillo, Pietro (3); Bürgmann, Roland (2); Hensley, Scott (1); Agram, Piyush S. (1); Minchew, Brent (4); Riel, Bryan Valmonte (4) 1: Jet Propulsion Lab, Caltech, Pasadena, Calif., United States of America; 2: University of California, Berkeley, Calif., United States of America; 3: University of Basilicata, Potenza, Italy; 4: California Institute of Technology, Pasadena, Calif., United States of America*

16:00 Use of Space-borne InSAR data to Optimize Landslide Numerical Models: the example of an Ancient Landslide in El Portalet, Central Pyrenees, Spain  
*Manconi, Andrea (1); Lollino, Piernicola (1); Duro, Javier (2); Mondini, Alessandro (1); Guzzetti, Fausto (1) 1: CNR IRPI, Italy; 2: Altamira Information, Spain*

16:20 Round Table

## Poster session 2

### 4.2.1 Applications: Volcanoes (1) (Magellan 09:00-11:00)

*Chairs: Wauthier, Christelle / Puglisi, Giuseppe*

09:00 Volcano Monitoring on a Regional Scale: Results from the CEOS DRM Volcano Pilot  
*Arnold, David (1); Biggs, Juliet (1); Delgado, Francisco (2); Pritchard, Matt (2); Ebmeier, Susanna K. (1) 1: University of Bristol, United Kingdom; 2: Cornell University*

09:20 InSAR Imaging of Aleutian Volcanoes: Monitoring a Volcanic Arc from Space  
*Lu, Zhong (1); Dzurisin, Dan (2) 1: Southern Methodist Univ, United States of America; 2: US Geological Survey, United States of America*

09:40 Application of satellite and airborne InSAR to volcano deformation processes in the Pacific Rim  
*Lundgren, Paul R (1); Milillo, Pietro (1,2); Kiryukhin, Alexey (3); Samsonov, Sergey (4); Gil, Fernando (5); Cordova, Maria (5); Owen, Susan (1); Tanaka, Akiko (6) 1: Jet Propulsion Laboratory, California Institute of Technology, United States of America; 2: Scuola di Ingegneria, Università degli Studi della Basilicata, Potenza, Italy; 3: Institute of Volcanology & Seismology FEB RAS, Petropavlovsk-Kamchatsky, Russia; 4: Canada Centre for Remote Sensing, Ottawa, ON, Canada; 5: Observatorio Vulcanológico de los Andes del Sur, SERNAGEOMIN, Temuco, Chile; 6: Geological Survey of Japan, AIST, Tsukuba, Japan*

10:00 Deep looks into explosive volcano craters by high resolution SAR observations  
*Walter, Thomas R. GFZ Potsdam, Germany*

10:20 The Chiles – Cerro Negro Volcanoes Unrest: Application of InSAR, In-situ Geodesy, and Other Observations to an Evolving Crisis  
*Lundgren, Paul (1); Milillo, Pietro (1,2); Mothes, Patricia (3); Medina, Lourdes Narváez (4); Laverde, Carlos (4); Wessels, Rick (5); Amelung, Falk (6); Samsonov, Sergey (7); Tanaka, Akiko (8); Owen, Susan (1); Biggs, Juliet (9); Ebmeier, Susanna K. (9); Parker, Amy (9); Battaglia, Maurizio (10,11); Prejean, Stephanie (12); Lyons, John (12) 1: Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA, United States of America; 2: Scuola di Ingegneria, Università degli Studi della Basilicata, Potenza, Italy; 3: Instituto Geofísico, Escuela Politécnica Nacional, Quito, Ecuador; 4: Servicio Geológico Colombiano, Observatorio Vulcanológico y Sismológico de Pasto, Pasto, Colombia; 5: Volcano Disaster Assistance Program, US Geological Survey, Reston, VA, USA; 6: Marine Geology and Geophysics – RSMAS, University of Miami, Miami, FL, USA; 7: Canada Centre for Remote Sensing, Ottawa, Canada; 8: Geological*

- Survey of Japan, AIST, Tsukuba, Japan; 9: School of Earth Sciences, University of Bristol, Bristol, UK; 10: Volcano Science Center, US Geological Survey, Menlo Park, CA, USA; 11: Department of Earth Sciences, Sapienza – University of Rome, Rome, Italy; 12: Volcano Science Center, US Geological Survey, Anchorage, AK, USA*
- 10:40 Measuring Topographic Changes at Active Volcanoes by Double Differential TanDEM-X InSAR  
*Kubanek, Julia; Westerhaus, Malte; Heck, Bernhard Karlsruhe Institute of Technology (KIT), Germany*
- 11:00 Coffee Break
- 4.2.2 Applications: Volcanoes (2) (Magellan 11:30-13:30)**  
*Chairs: Puglisi, Giuseppe / Lu, Zhong*
- 11:30 Ten years of InSAR in the Kivu Rift basin : Results and Perspectives  
*Kervyn, François (1); D'Oreye, Nicolas (2,3); Albino, Fabien (1); Derauw, Dominique (4); Cayol, Valerie (5); Arjona, Alicia (3); Nobile, Adriano (1) 1: Royal Museum for Central Africa. Earth Science Dept. Belgium; 2: National Museum of Natural History. GD Luxemburg; 3: European Center of Geodynamic and Seismology. GD Luxemburg; 4: Centre Spatial de Liège. Belgium; 5: Laboratoire Magmas et Volcans. France*
- 11:50 High-resolution InSAR time series analysis following the 2011 eruption of Nabro Volcano, Eritrea: Implications for the mechanisms of post-eruptive subsidence.  
*Hamlyn, Joanna Elizabeth (1); Wright, Tim J. (1); Keir, Derek (2); Pagli, Carolina (3); Neuberg, Jurgen W. (1); Grandin, Raphael (4); Sansosti, Eugenio (5); Pepe, Susi (5); Casu, Francesco (5); Walters, Richard (1); Carboni, Elisa (6); Grainger, Roy (6); Goitom, Berhe (7); Hammond, James. O. S (8); Oppenheimer, Clive (9); Kendall, Michael (7); Parker, Amy (7); Biggs, Juliet (7) 1: COMET, School of Earth and Environment, University of Leeds, Leeds, UK.; 2: National Oceanography Centre Southampton, University of Southampton, Southampton, UK.; 3: Dipartimento di Scienze della Terra, Università di Pisa, Pisa, Italia.; 4: Institut de Physique du Globe de Paris (IPGP), Paris, France.; 5: Istituto per il Rilevamento Elettromagnetico dell'Ambiente, Consiglio Nazionale delle Ricerche, (IREA-CNR) Napoli, Italia; 6: Department of Physics, University of Oxford, Oxford, UK.; 7: School of Earth Sciences, University of Bristol, Bristol, UK.; 8: Department of Earth Science and Engineering, Imperial College London, London UK.; 9: Department of Geography, University of Cambridge, Cambridge, UK.*
- 12:10 Magma-Tectonic Processes in Kilauea's Upper Rift Zones Revealed by the Modeling of Geodetic and Volcano-Tectonic Seismic Datasets  
*Wauthier, Christelle (1); Roman, Diana (2); Poland, Michael P. (3); Miklius, Asta (3); Hooper, Andy (4); Fukushima, Yo (5); Cayol, Valerie (6) 1: The Pennsylvania State University, United States of America; 2: The Carnegie Institution of Washington, United States of America; 3: Hawaiian Volcano Observatory, USGS, United States of America; 4: University of Leeds, UK; 5: Tohoku University, Japan; 6: Lab. Magmas et Volcans, Univ. Blaise Pascal, France*
- 12:30 Analysis of unrest episodes in the last decade at Mauna Loa volcano through the use of multi-temporal and multi-platform InSAR data  
*Pepe, Susi (1); Castaldo, Raffaele (1); Casu, Francesco (1); D'Auria, Luca (2,1); De Luca, Claudio (1); De Novellis, Vincenzo (1); Sansosti, Eugenio (1); Solaro, Giuseppe (1); Tizzani, Pietro (1); Zeni, Giovanni (1) 1: IREA - CNR, Italy; 2: Osservatorio Vesuviano sezione di Napoli INGV, Italy*
- 12:50 Measuring Volcanic Deformation at Unimak Island from 2003 to 2010 Using Weather Model-assisted Time Series InSAR  
*Gong, Wenyu (1); Meyer, Franz Josef (1); Lee, Chang-wook (2); Lu, Zhong (3); Freymueller, Jeffrey (1) 1: University of Alaska Fairbanks, United States of America; 2: Korea Meteorological Administration, the Republic of Korea; 3: Southern Methodist University, United States of America*
- 13:10 Imaging the episodic growth of a magmatic reservoir beneath the megacity of Naples  
*D'Auria, Luca (1,2); Pepe, Susi (2); Castaldo, Raffaele (2); Zinno, Ivana (2); Macedonio, Giovanni (1); Giudicepietro, Flora (1); Casu, Francesco (2); Manzo, Mariarosaria (2); Sansosti, Eugenio (2); Lanari, Riccardo (2); Tizzani, Pietro (2) 1: Osservatorio Vesuviano sezione di Napoli INGV, Italy; 2: IREA -CNR, Italy*
- 13:30 Lunch Break
- 4.2.3 Applications: Volcanoes (3) (Magellan 14:40-16:50)**  
*Chairs: Lundgren, Paul R / d'Oreye, Nicolas F*
- 14:40 PS-InSAR Measurements at the Most Active Volcanoes in Iceland: Role of Interferometric Synthetic Aperture Radar in Deformation Monitoring at Bárðarbunga, Askja, Hekla, Katla and Eyjafjallajökull Volcanoes  
*Parks, Michelle M (1); Dumont, Stéphanie (1); Drouin, Vincent (1); Sigmundsson, Freysteinn (1); Spaans, Karsten (2); Hooper, Andrew (2); Ófeigsson, Benedikt (3); Hreinsdóttir, Sigrún (4); Árnadóttir, Thóra (1); Hjaltadóttir, Sigurlaug (1,3); Michalczywska, Karolina (1);*

- Hjartardóttir, Ásta Rut (1); Geirsson, Halldór (5); LaFemina, Pete (5); Sturkell, Erik (6); Magnússon, Eyjólfur (1); Friðriksdóttir, Hildur María (1,3); Vogfjörð, Kristín S (3); Guðmundsson, Gunnar B (3); Jónsdóttir, Kristín (3); Hensch, Martin (3) 1: Nordic Volcanological Center, Institute of Earth Sciences, University of Iceland, IS-101 Reykjavík, Iceland; 2: COMET, School of Earth and Environment, University of Leeds, Leeds, LS2 9JT, UK; 3: Icelandic Meteorological Office, IS-150 Reykjavík, Iceland; 4: GNS Science, Avalon 5010, Lower Hutt, New Zealand; 5: The Pennsylvania State University, University Park, Pennsylvania 16802, USA; 6: University of Gothenburg, SE-405 30 Gothenburg, Sweden*
- 16:20 Round Table  
*Spaans, Karsten; Hooper, Andy COMET, School of Earth and Environment, University of Leeds, United Kingdom*
- 15:00 The Ongoing Collapse of Bárðarbunga Caldera, Iceland  
*Riel, Bryan Valmonte (1); Milillo, Pietro (1,2); Simons, Mark (1); Lundgren, Paul (3); Samsonov, Sergey (4) 1: California Institute of Technology, United States of America; 2: Scuola di Ingegneria, Università degli Studi della Basilicata, Italy; 3: Jet Propulsion Laboratory, United States of America; 4: Canada Centre for Mapping and Earth Observation, Natural Resources, Canada*
- 15:20 Deformation models for the 2014 Bárðarbunga dyke intrusion and caldera collapse in Iceland  
*Hooper, Andrew (1); Sigmundsson, Freysteinn (2); Hreinsdóttir, Sigrún (3); Ófeigsson, Benedikt (4); Heimisson, Elías Rafn (1); Dumont, Stéphanie (1); Parks, Michelle M (1); Spaans, Karsten (2); Drouin, Vincent (1); Árnadóttir, Thóra (1) 1: COMET, School of Earth and Environment, University of Leeds, Leeds, LS2 9JT, UK; 2: Nordic Volcanological Center, Institute of Earth Sciences, University of Iceland, IS-101 Reykjavík, Iceland; 3: GNS Science, Avalon 5010, Lower Hutt, New Zealand; 4: Icelandic Meteorological Office, IS-150 Reykjavík, Iceland*
- 15:40 Constraints from satellite radar interferometry on the plumbing system feeding the 2014 fissure eruption at Holuhraun, Bárðarbunga volcanic system, Iceland  
*Dumont, Stéphanie (1); Parks, Michelle M (1); Sigmundsson, Freysteinn (1); Drouin, Vincent (1); Hreinsdóttir, Sigrún (2); Ófeigsson, Benedikt (3); Hooper, Andrew (4); Spaans, Karsten (4); Heimisson, Elías Rafn (1); Vogfjörð, Kristín (3); Hensch, Martin (3); Hjartardóttir, Ásta Rut (1); Magnússon, Eyjólfur (1) 1: Nordic Volcanological Center, Institute of Earth Sciences, University of Iceland, Reykjavík, Iceland; 2: GNS Science, Avalon 5010, Lower Hutt, New Zealand; 3: Icelandic Meteorological Office, IS-150 Reykjavík, Iceland; 4: COMET, School of Earth and Environment, University of Leeds, Leeds, LS2 9JT, UK*
- 16:00 Rapid InSAR processing as a volcano monitoring tool



Oral Presentations Friday 27 March 2015

12:40 Volcanoes  
12:50 Subsidence and Landslides

### 5.1.1 Mission Exploitation (Big Hall 09:00-11:00)

Chairs: Prats-Iraola, Pau / Coletta, Alessandro

- 09:00 SAOCOM 1A Interferometric Error Model and Analysis  
*Euillades, Pablo Andrés (1); Euillades, Leonardo Daniel (1); Azcueta, Mario (2); Sosa, Gustavo Javier (3) 1: Instituto CEDIAC - FI - Universidad Nacional de Cuyo & CONICET; 2: Comisión Nacional de Actividades Espaciales de Argentina; 3: Instituto CEDIAC - FI - Universidad Nacional de Cuyo*
- 09:20 InSAR Sensitivity Analysis of Tandem-L Mission for Modeling Volcanic and Seismic Deformation Sources  
*Ansari, Homa (1,2); Goel, Kanika (1); Parizzi, Alessandro (1); Sudhaus, Henriette (3); Adam, Nico (1); Eineder, Michael (1) 1: (1) Remote Sensing Technology Institute (IMF), German Aerospace Center (DLR), Wessling, Germany; 2: (2) Chair of Remote Sensing Technology (LMF), Technical University of Munich (TUM), Munich, Germany; 3: (3) Department of Physics of the Earth, German Research Centre for Geosciences (GFZ), Potsdam, Germany*
- 09:40 Mitigation of Volcanic risk: the COSMO-SkyMed contribution  
*Sacco, Patrizia; Daraio, Maria Girolamo; Battagliere, Maria Libera; Coletta, Alessandro Italian Space Agency, Italy*
- 10:00 TanDEM-X Mission Status: DEM Data Acquisition and Science Phase  
*Böer, Johannes; Bräutigam, Benjamin; Borla Tridon, Daniela; Schulze, Daniel; Bachmann, Markus; Zink, Manfred German Aerospace Center (DLR), Germany*
- 10:20 Global Maps from Interferometric TanDEM-X Data: Applications and Potentials  
*Rizzoli, Paola; Martone, Michele; Bräutigam, Benjamin; Zink, Manfred German Aerospace Center DLR, Germany*
- 10:40 Biomass, a polarimetric interferometric P-band SAR mission  
*Arcioni, Marco (1); Bensi, Paolo (1); Fehringier, Michael (1); Fois, Franco (2); Heliere, Florence (1); Miranda, Nuno (1); Scipal, Klaus (1) 1: ESA; 2: RHEA System*

11:00 Coffee Break

### 5.1.2 Session Summaries (Big Hall 11:30-13:00)

Chairs: Desnos, Yves-Louis / Engdahl, Marcus

- 11:30 INSAR with Sentinel-1  
11:40 Coherence Exploitation  
11:50 InSAR Theory and Techniques: General  
12:00 PSI and DinSAR  
12:10 Cryosphere  
12:20 Mapping  
12:30 Earthquakes and Tectonics

## Poster Presentations Tuesday 24 March 2015

- |    |  |    |   |
|----|--|----|---|
| 1  | viStaMPS – The InSAR Collaborative Project<br><i>Sousa, Joaquim João (1); Guimarães, Pedro (1); Sousa, Antonio (1); Ruiz, Antonio M. (2); Patrício, Glória (3); Magalhães, Luís (4) 1: University of Trás-os-Montes e Alto Douro, Portugal; 2: University of Jaén; 3: Instituto Politécnico da Guarda; 4: Universidade do Minho</i>  | 12 | Phase unwrapping with reformulated MCF using Anchor Points<br><i>Gara, Mateusz; Ghuman, Parwant Singh 3v Geomatics, Canada</i>  |
| 2  | PGI's open source toolbox for interferometric time-series processing and data analysis: status review<br><i>Perski, Zbigniew (1); Marinkovic, Petar (2) 1: Polish Geological Institute - National Research Institute, Poland; 2: PPO.Labs, The Netherlands</i>   | 13 | On resolving the Local Oscillator drift induced phase ramps in ASAR and ERS1/2 interferometric data - the final solution<br><i>Marinkovic, Petar (1); Larsen, Yngvar (2) 1: PPO.labs, The Netherlands; 2: Norut, Norway</i>   |
| 3  | Sentinel-1 support in the GAMMA Software<br><i>Wegmüller, Urs; Werner, Charles; Strozzi, Tazio; Wiesmann, Andreas; Frey, Othmar Gamma Remote Sensing AG, Switzerland</i>   | 14 | Impact of BAQ level on InSAR performance of RADARSAT-2 extended swath beam modes.<br><i>Eppler, Jayson; Kubanski, Mike MDA Systems Ltd., Canada</i>   |
| 4  | Efficient Focusing, Interferometry and Interferometric Stacking of Sentinel-1 IWS TOPS Data<br><i>Cantone, Alessio (1); Peternier, Achille (1); Pasquali, Paolo (1); De Filippi, Marco (1); Riccardi, Paolo (1); Vitulli, Raffaele (2) 1: sarmap s.a., Switzerland; 2: ESA ESTEC</i>   | 15 | New Coherence Algorithm for High Motion Areas<br><i>zimmer, Aaron Alan; Rabus, Bernhard Theodor 3vGeomatics inc., Canada</i>  |
| 5  | Interferometric Processing of SLC Sentinel-1 TOPS Data<br><i>Grandin, Raphael Institut de Physique du Globe de Paris, France</i>   | 16 | Exploiting Fringe Frequency Information for Geophysical Modelling<br><i>Parizzi, Alessandro; Eineder, Michael DLR, Germany</i>  |
| 6  | RSF: A robust non-parametric phase filtering method for automatic processing of Sentinel-1 interferograms<br><i>González, Pablo J. University of Leeds, United Kingdom</i>   | 17 | Decorrelating Clutter Statistics for Long Integration Time SAR Imaging<br><i>Leanza, Antonio (1); Monti Guarnieri, Andrea (1); Recchia, Andrea (1); Broquetas Ibars, Antoni (2); Ruiz Rodon, Josep (2) 1: Politecnico di Milano, Italy; 2: Universitat Politècnica de Catalunya, Spain</i>  |
| 7  | Automated generation of near-realtime, optimum accuracy movement products with Sentinel-1A IW data<br><i>Rabus, Bernhard Theodor (1,2); Ghuman, Parwant Singh (1) 1: 3vGeomatics Inc; 2: Simon Fraser University (SFU)</i>   | 18 | Correction of Ionospheric Phase Screen in Differential Interferograms Using Range Split-Band Technique<br><i>Gomba, Giorgio; Eineder, Michael German Aerospace Center (DLR), Germany</i>  |
| 8  | The Cloud4SAR Interferometry Challenge within the ESA e-Collaboration for Earth Observation (E-CEO) project<br><i>Casu, Francesco (1); Manunta, Michele (1); Boissier, Enguerran (2); Brito, Fabrice (2); Aas, Christina (3); Lavender, Samantha (4); Ribeiro, Rita (5); Farres, Jordi (6); Mathieu, Pierre Philippe (6) 1: CNR - IREA, Italy; 2: Terradue UK Ltd; 3: Science and Technology AS; 4: Pixalytics Ltd; 5: UNINOVA; 6: ESA - ESRIN</i> | 19 | Influence of GNSS Configuration and Map Interpolation Method on INSAR Atmospheric Phase Assessment<br><i>Simonetto, Elisabeth (1); Morel, Laurent (1); El Hamri, Yassine (1); Durand, Stéphane (1); Durand, Frédéric (1); Froger, Jean-Luc (2); Polidori, Laurent (1); Nicolas-Duroy, Joelle (1) 1: ESGT- CNAM, France; 2: LMV - OPGC - Univ. Blaise Pascal, France</i> |
| 9  | A Parallel Computational Model for Multichannel Phase Unwrapping Problem<br><i>Imperatore, Pasquale; Pepe, Antonio; Lanari, Riccardo IREA-CNR, Via Diocleziano 328, 80124 Napoli, Italy</i>  | 20 | A NWM-based correction for water vapour in InSAR retrievals<br><i>Crippa, Paola (1); Li, Zhenhong (1); Wadge, Geoff (2) 1: Newcastle University, United Kingdom; 2: University of Reading, United Kingdom</i>   |
| 10 | Unwrapping using Mixed Mathematical Arts (MMA)<br><i>Grydeland, Tom; Larsen, Yngvar; Lauknes, Tom Rune Norut, Norway</i>   | 21 | High-Resolution Numerical Weather Prediction of Soufrière Hills Volcano, Montserrat for InSAR Atmospheric Correction<br><i>Webb, Thomas Lloyd University of Reading, United Kingdom</i>   |
| 11 | 2D Phase Unwrapping by fusion Cut-Line and Quality-Maps  | 22 | Assessment of Atmospheric Column Water Vapor Effect on Displacement Interferometric Estimations in DInSAR Method (ASAR Sensor)<br><i>Pakdaman, Mohamad Sadeq; Almodaresi, Sayyed Ali; Sarkargar Ardakani, Ali Department of Remote Sensing and GIS, Faculty of</i>  |

- Engineering, Yazd Branch, Islamic Azad University, Yazd, Iran
- 23 Constructing high-resolution maps of atmospheric water vapor using InSAR  
*Alshawaf, Fadwa Karlsruhe Institute of Technology, Germany*
- 24 Enhancement of SnowScat for tomographic observation capabilities  
*Frey, Othmar (1); Werner, Charles L. (2); Wiesmann, Andreas (2) 1: Gamma Remote Sensing AG, Switzerland, Earth Observation & Remote Sensing, ETH Zurich, Switzerland; 2: Gamma Remote Sensing AG, Switzerland*
- 25 Texture Free Radargrammetric Processing of Opposite-View TomoSAR Data for DEM Estimation  
*Banda, Francesco; Tebaldini, Stefano Politecnico di Milano, Italy*
- 26 Improved Topographic Mapping Through Multi-baseline InSAR with MAP Estimation  
*Dong, Yuting (1); Jiang, Houjun (1); Zhang, Lu (1,2); Liao, Mingsheng (1,2); Shi, Xuguo (1) 1: State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing, Wuhan University, Wuhan, China; 2: Collaborative Innovation Center for Geospatial Technology, Wuhan, China*
- 27 MTInSAR model for joint estimation of deformation, topographic residual and orbit error: an update  
*Zhang, Lei (1); Ding, Xiaoli (1); Lu, Zhong (2); Hu, Jun (1,3) 1: The Hong Kong Polytechnic University, Hong Kong S.A.R. (China); 2: Southern Methodist University, USA; 3: Central South University, China*
- 28 Quality and accuracy evaluation of a new improved baseline estimation method by using different external DEMs in different terrain areas  
*Feng, Lang; Muller, Jan-Peter Mullard Space Science Laboratory University College London, United Kingdom*
- 29 Evaluation of High Resolution TanDEM-X DEM and its implications to InSAR Applications  
*Li, Zhenhong (1); Motagh, Mahdi (2); Li, Peng (3) 1: COMET, School of Civil Engineering and Geosciences, Newcastle University, United Kingdom; 2: Department of Geodesy and Remote Sensing, Helmholtz Center Potsdam, GFZ German Research Center for Geosciences, Germany; 3: GNSS Research Center, Wuhan University, China*
- 30 Application of ERS-ENVISAT cross-interferometry for DEM construction over the Amery Ice Shelf, East Antarctica  
*Cheng, Xiao; Cheng, Cheng Beijing Normal University, China, People's Republic of*
- 31 Mitigation of atmospheric phase delay in InSAR time series using ERA-interim model and MODIS data: application to the permafrost deformation in Hurd peninsula, Antarctica.  
*Reis, Ana Rita (1); Catalão, João (1); Vieira, Gonçalo (2); Nico, Giovanni (3) 1: IDL, Faculty of Sciences of the University of Lisbon, Portugal; 2: CEG/IGOT-University of Lisbon, Portugal; 3: Consiglio Nazionale delle Ricerche (CNR), Istituto per le Applicazioni del Calcolo (IAC) - Bari, Italy,*
- 32 Grounding line derivation over the Antarctic Ice Sheet from TerraSAR-X  
*Baessler, Michael; Floricioiu, Dana; Abdel Jaber, Wael German Aerospace Center (DLR), Germany*
- 33 Surface deformation and hydraulic features of land terminating glaciers in Greenland observed by TerraSAR-X and TanDEM-X  
*Nagler, Thomas (1); Hetzenecker, Markus (1); Rott, Helmut (1); Floricioiu, Dana (2); Wuite, Jan (1) 1: ENVEO IT GmbH, Austria; 2: Remote Sensing Technology Institute, DLR, Germany*
- 34 Evaluation of X-band InSAR technique for monitoring seasonal surface elevation change in a permafrost landscape, Barrow, Alaska  
*Haghshenas Haghghi, Mahmud (1); Motagh, Mahdi (1); Heim, Birgit (2); Streletskiy, Dmitry (3); Grosse, Guido (2); Bartsch, Annett (4) 1: Helmholtz-Zentrum Potsdam Deutsches GeoForschungsZentrum GFZ, Potsdam, Germany; 2: Alfred Wegener Institute Helmholtz-Center for Polar and Marine Research, Potsdam, Germany; 3: George Washington University, Washington, DC, United States; 4: Vienna University of Technology, Vienna, Austria*
- 35 Evaluation of Interferometric Coherence over Polar Regions with Space-based Quadruple Polarimetric Synthetic Aperture Radar  
*Hong, Sang-Hoon (1,2); Wdowinski, Shimon (2); Atwood, Don (3); Park, Jeong-Won (1) 1: Korea Polar Research Institute, Korea, Republic of (South Korea); 2: University of Miami, U.S.A.; 3: Michigan Tech Research Institute, U.S.A.*
- 36 Ice sheet velocity estimation from Sentinel-1 data  
*Lemos, Adriano; Shepherd, Andrew; McMillan, Malcolm University of Leeds, United Kingdom*
- 37 Ice Velocity, Grounding Line, and Calving Front from Satellite SAR Data – Overview of a NASA MEaSURES Project  
*Scheuchl, Bernd (1); Mougnot, Jeremie (1); Rignot, Eric (1,2); Millan, Romain (1) 1: University of California, Irvine, United States of America; 2: Caltech's Jet Propulsion Laboratory, United States of America*
- 38 Ice elevation, volume and mass changes 2000 - 2012 of glaciers in South Chile from TanDEM-X and SRTM data  
*Saß, Björn Lukas (1); Floricioiu, Dana (2); Abdel Jaber, Wael (2); Braun, Matthias (1) 1: University of Erlangen, Institute of Geography; 2: German Aerospace Center, Remote Sensing Technology Institute*

- 39 Ice Displacement Time-series Generation Over the Viedma Glacier (Argentina) through High Resolution SAR data  
*Euillades, Leonardo Daniel (1,2); Euillades, Pablo Andrés (1,2); Riveros, Natalia Cecilia (1); Casu, Francesco (3); Elefante, Stefano (3); Masiokas, Mariano (4); Pite, Pierre (4); Ruiz, Lucas Ernesto (4) 1: Instituto CEDIAC, Facultad de Ingeniería, Universidad Nacional de Cuyo, Mendoza, Argentina; 2: CONICET, Argentina; 3: Istituto per il Rilevamento Elettromagnetico dell'Ambiente (IREA-CNR), Napoli, Italy; 4: Instituto Argentino de Nivología, Glaciología y Ciencias Ambientales (IANIGLA), CCT CONICET Mendoza, Argentina*
- 40 Estimation and Analysis of the Thickness Changes of Mountain Glacier with Satellite InSAR Data  
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- 41 Elevation changes of surge-type glaciers in the Karakoram region inferred from TanDEM-X InSAR  
*Rankl, Melanie; Vijay, Saurabh; Braun, Matthias University of Erlangen, Germany*
- 42 A Decade of Seasonal and Interannual Surface Velocity Variations of Inylchek Glacier, Central Asia, Investigated by ENVISAT and TerraSAR-X Radar Data  
*Neelmeijer, Julia; Motagh, Mahdi GFZ German Research Centre for Geosciences, Potsdam, Germany*
- 43 Monitoring Surface Displacements on Alpine Glaciers: Joint Exploitation of Photogrammetric Techniques and Ground Based Radar Interferometry  
*Manconi, Andrea (1); Giordan, Daniele (1); Allasia, Paolo (1); Caduff, Rafael (2); Strozzi, Tazio (2); Curtaz, Michèle (3); Vagliasindi, Marco (3); Bertolo, Davide (4) 1: Geohazard Monitoring Group, CNR IRPI, Italy; 2: GAMMA Remote Sensing, Switzerland; 3: Fondazione Montagna sicura - Montagne sûre, Italy; 4: Struttura Attività Geologiche Regione Autonoma Valle d'Aosta, Italy*
- 44 Alpine Permafrost Deformation Monitoring through X- and C-Band SAR Multi-temporal Interferometry  
*Callegari, Mattia (1,2); Notarnicola, Claudia (2); Riccardi, Paolo (3); Seppi, Roberto (1); Zucca, Francesco (1) 1: University of Pavia; 2: EURAC; 3: Sarmap S.A.*
- 45 Analysis of Agricultural Scenes based on SAR Interferometry  
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- 46 *l'Ambiente e il Territorio srl, Italy; 5: DIAN srl, Italy; 6: Universidade de Lisboa, IDL, Portugal*  
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- 47 Advanced interferometric applications and SAR data calibration over Thessaloniki (Greece) in preparation for Sentinel-1 SAR interferometry  
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- 48 Efficient Strategy Selection of Permanent and Distributed Scatterers In Non-urban Areas  
*FEKIR, Mohamed (1); HOCINE, Faiza (2); HADDOUD, Afifa (3); BELHADJ-AISSA, Aichouche (4) 1: USTHB (university of sciences and technology, Algiers, Algeria; 2: USTHB (university of sciences and technology, Algiers, Algeria; 3: USTHB (university of sciences and technology, Algiers, Algeria; 4: USTHB (university of sciences and technology, Algiers, Algeria*
- 49 Improved Small-baseline Subset Analysis of High Resolution SAR Images for Linear Infrastructure Deformation Mapping  
*Shi, Xuguo (1); Liao, Mingsheng (1,2); Zhang, Lu (1,2); Yang, Mengshi (1); Balz, Timo (1,2) 1: Wuhan University, China, People's Republic of; 2: Collaborative Innovation Center for Geospatial Technology, China, People's Republic of*
- 50 Long Metal Cable Scattering in High Resolution SAR Images  
*Li, Tao (1,2); wang, Mingzhou (1); Xu, Kan (1); Li, Sha (1); Hou, Ailing (1); Wu, Wenhao (1); Liu, Yan (3); Li, Zhenhong (2) 1: GNSS Research Centre, Wuhan university, China; 2: COMET, School of Civil Engineering and Geoscience, Newcastle University, UK; 3: High Voltage Department, China Electric Power Research Institute, China*
- 51 A New Change Detection Technique applied to COSMO-SkyMed Stripmap Himage data  
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- 52 Mapping Changes and Damages in Areas of Conflict: from Archive C-band SAR Data to New HR X-band Imagery, towards the Sentinels  
*Tapete, Deodato (1,2) 1: Department of Geography, Durham University, Durham, United Kingdom; 2: Institute of Hazard, Risk and*

- 53 *Resilience (IHRR), Durham University, Durham, United Kingdom*  
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*Garthwaite, Matthew C.; Lawrie, Sarah; Dawson, John H.; Thankappan, Medhavy*  
*Geoscience Australia, GPO Box 378, Canberra, ACT 2601 Australia*
- 54 ANALYSIS OF THE THERMAL DILATION COMPONENT OF PSI OBSERVATIONS  
*Crosetto, Michele (1); Monserrat, Oriol (1); Devanthéry, Núria (1); Cuevas-González, María (1); Crippa, Bruno (2)* 1: CTTC, Spain; 2: University of Milan
- 55 Urban Areas Extraction from Multitemporal SAR RGB Images Using Interferometric Coherence and Textural Information  
*Amitrano, Donato; Di Martino, Gerardo; Iodice, Antonio; Riccio, Daniele; Ruello, Giuseppe*  
*University of Napoli Federico II, Italy*
- 56 Using Advanced DInSAR techniques to identify potential geodetic precursors of building collapse following seismic swarms - L'Aquila.  
*Morigi, Massimo (1); Giuliani, Giampaolo (2); Avanzi, Giovanni (3); Di Francesco, Romolo (4)* 1: University Tor Vergata Rome, Italy; 2: Permanent Foundation Giuliani; 3: Paneidos S.r.l.; 4: MySpaceWork S.n.c.
- 57 Small scale ground deformations observed in the western rift of Corinth by exploiting multitemporal interferometry and GPS measurements  
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- 58 The Mw 5.9 February 2014 Cephalonia Earthquake (Greece): 3D Deformation Field and Source Modeling from Multiple SAR Techniques  
*Merryman Boncori, John Peter (1); Papoutsis, Ioannis (2); Pezzo, Giuseppe (1); Tolomei, Cristiano (1); Atzori, Simone (1); Ganas, Athanassios (3); Karastathis, Vassilios (3); Salvi, Stefano (1); Kontoes, Charalampos (2); Antonioli, Andrea (1)* 1: Istituto Nazionale di Geofisica e Vulcanologia, Centro Nazionale Terremoti, Via di Vigna Murata 605, 00143 Rome, Italy; 2: National Observatory of Athens, Institute of Astronomy, Astrophysics, Space Applications and Remote Sensing, 15236 Athens, Greece; 3: National Observatory of Athens, Institute of Geodynamics, 11810 Athens, Greece.
- 59 Fault slip pattern of the 2014 earthquake sequence in Ilam province, southwest Iran: Implications for seismogenic characteristics of the Zagros mountain fold-thrust belt  
*Motagh, Mahdi (1); Bahroudi, Abbas (2); Haghshenas Haghighi, Mahmud (1); Samsonov, Sergey (3); Fielding, Eric Jameson (4); Wetzell, Hans-Ulrich (1)* 1: GFZ German Research Center for Geosciences, Germany; 2: Exploration Department, School of Mining Engineering, Engineering Faculty, University of Tehran, Iran; 3: Canada Centre for Mapping and Earth Observation, Natural Resources Canada, Ottawa, ON K1A 0E4 Canada; 4: Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California, U.S.A.
- 60 Using integer least squares estimator to connect isolated InSAR fringes in earthquake slip inversion  
*Wang, Chisheng* Shenzhen University, China, People's Republic of
- 61 Measuring and Modelling the Earthquake Deformation Cycle at Continental Dip-slip Faults: Postseismic Deformation  
*Ingleby, Tom; Wright, Tim J; Hooper, Andy; Houseman, Gregory* University of Leeds, United Kingdom
- 62 The Vertical Coseismic Deformation Field of the Wenchuan Earthquake Based on the Combination of GPS and InSAR  
*Shan, Xinjian (1); Qu, Qunyan (1); Song, Xiaogang (1); Zhang, Guohong (1); Wen, Shaoyan (1); Wang, Chisheng (2)* 1: Institute of Geology, China Earthquake Administration, China, People's Republic of; 2: The Hong Kong Polytechnic University
- 63 Coseismic and Postseismic Deformation of the 2008 Dachaidan Mw 6.3 Earthquake from InSAR Observations  
*Liu, Yang; Xu, Caijun; Wen, Yangmao* School of Geodesy and Geomatics, Wuhan University, China
- 64 InSAR Interseismic Velocity Along the Red River Fault in Yunnan, China  
*Zhang, Jingfa; Li, Yongsheng; Tian, Yunfeng* Institute of Crustal Dynamics, China Earthquake Administration, China, People's Republic of
- 65 Large-scale Interseismic Deformation along the Western Segment of the Altyn Tagh Fault Revealed by Wide-Swath InSAR Observations in the Northern Tibetan Plateau  
*Li, Peng (1); Li, Zhenhong (2); Shi, Chuang (1); Liu, Jingnan (1)* 1: GNSS Research Center, Wuhan University, China, People's Republic of; 2: COMET+, School of Civil Engineering and Geosciences, Newcastle University, Newcastle Upon Tyne, NE1 7RU, UK
- 66 A brief overview of current efforts to investigate the active front of the Pamir, Central Asia, using GPS and InSAR  
*Metzger, Sabrina (1); Bartsch, Mitja (1); Ischuk, Anatoly (2); Schöne, Tilo (1); Zech, Cornelia (1); Zubovich, Alexander (3)* 1: Helmholtz Center Potsdam, German Research Center for Geosciences; 2: Institute of Geology, Earthquake Engineering and Seismology of the Academy of Sciences, Dushanbe; 3: Central-Asian Institute for Applied Geosciences, Bishkek

- 67 Mapping fault creep and transient motion in central and southern California using satellite InSAR, UAVSAR and GPS  
*Liu, Zhen; Lundgren, Paul; Hensley, Scott Jet Propulsion Laboratory, United States of America*
- 68 Modelling Fault Slip Distribution using Geodesy and Seismology  
*Amey, Ruth MJ; Hooper, Andy J; Wright, Tim J; Hawthorne, Jessica C University of Leeds, United Kingdom*
- 69 Earthquake cycle deformation at the Ballenas Transform, Gulf of California, Mexico, from InSAR and GPS measurements  
*Plattner, Christina (1,2); Fattahi, Heresh (2); Malservisi, Rocco (3); Amelung, Falk (2); Verdecchia, Alessandro (1); H. Dixon, Timothy (3) 1: Ludwig-Maximilians-Universität, Germany; 2: University of Miami, Rosenstiel School of Marine and Atmospheric Sciences; 3: University of South Florida, Tampa*
- 70 InSAR evidences of surface rupture following a moderate Mw5.0 shallow earthquake in the Ecuadorian Andes  
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- 71 The 20 years history of ground deformation in the Kyoto basin and the Osaka plain  
*Hashimoto, Manabu Kyoto University, Japan*
- 72 Complete and Consistent Coverage of Taiwan Island by InSAR  
*Fruneau, Bénédicte (1); Pathier, Erwan (2); Doin, Marie-Pierre (2); Volat, Matthieu (2); Champenois, Johann (3); Hu, Jyr-Ching (4) 1: Université Paris-Est Marne-la-Vallée, France; 2: ISTERre, Université Joseph Fourier, France; 3: IRSN, France; 4: National Taiwan University, Taiwan*
- 73 Resolving 3D ground movements induced by subsurface fluid variations with D-InSAR LOS measurement  
*Hu, Jun (1,2); Ding, Xiaoli (1); Zhang, Lei (1); Sun, Qian (1,2); Li, Zhiwei (2); Zhu, Jianjun (2) 1: The Hong Kong Polytechnic University, Hong Kong S.A.R. (China); 2: Central South University*
- 74 Monitoring of land deformation due to oil production by InSAR time series analysis  
*Deguchi, Tomonori (1); Narita, Tatsuhiko (2) 1: NMCC, Japan; 2: J-spacesystems*
- 75 Detecting surface deformation due to shale gas hydraulic fracturing by InSAR, corner reflectors and geodetic observations  
*Chowaniec-Tobiasz, Katarzyna (1); Perski, Zbigniew (1); Marinkovic, Petar (2); Wojciechowski, Tomasz (1); Nescieruk, Piotr (1) 1: Polish Geological Institute - National Research Institute, Poland; 2: PPO.Labs, The Netherlands*
- 76 Geological mapping of fractures and lineaments using image processing of Synthetic Aperture Radar (SAR) (Case study: Kalate Naderi maleki, reza kntu university, Iran, Islamic Republic of
- 77 Multi-temporal SAR backscattering analysis for intertidal morphodynamics  
*Catalão, João (1); Nico, Giovanni (2) 1: IDL, Faculty of Sciences of the University of Lisbona, Portugal; 2: Consiglio Nazionale delle Ricerche (CNR), Istituto per le Applicazioni del Calcolo (IAC) - Bari, Italy*
- 78 A comparison between coherence levels of ERS, ASAR, PaSAR and Sentinel-1 data in the Danube Delta  
*Poncos, Valentin; Teleaga, Delia Cosmina Advanced Studies and Research Center, Romania*
- 79 Multitemporal SAR Interferometry in the Messolonghi-Etoliko Natura 2000 Overlapping Deltas Area  
*GKARTZOU, EVANGELIA; PARCHARIDIS, ISSAAK; KARYMBALIS, EFTHIMIOS; DRAKATOU, MARIA LOUIZA Harokopio University of Athens, Greece*
- 80 Evaluation of Space-based Wetland InSAR Observations over the Cienaga Grande de Satnta Marta (CGSM), Colombia  
*Hong, Sang-Hoon (1,2); Wdowinski, Shimon (2); Atwood, Don (3) 1: Korea Polar Research Institute, Korea, Republic of (South Korea); 2: University of Miami, U.S.A.; 3: Michigan Tech Research Institute, U.S.A.*
- 81 InSAR Monitoring of Tide Propagation through Coastal Wetlands  
*Wdowinski, Shimon (1); Oliver, Talib (1); Hong, Sang-Hoon (2); Brisco, Brian (3) 1: University of Miami, United States of America; 2: Division of Polar Ocean Environment, Korea Polar Research Institute, Korea; 3: Canada Centre for Remote Sensing Division, Natural Resources Canada*
- 82 A surprising application of InSAR: geodetic issues underpinning sea level science  
*Le Cozannet, Goneri (1); Raucoules, Daniel (1); Woppelmann, Guy (2); De Michele, Marcello (1); Cazenave, Anny (3) 1: BRGM, France; 2: LIENSs, Univ. La Rochelle, France; 3: LEGOS / CNES; France*
- 83 Estimate Algorithm of Interferometric SAR Baseline  
*MAHMOUDI, Mohamed Tadj-eddine; HOCINE, Faiza; Belhadj aissa, Aichouche UTHB, Algeria*

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- 1 Deformation monitoring in Zafarraya Fault and Sierra Tejada Antiform (Betic Cordillera, Spain) using satellite radar interferometry  
*Ruiz-Armenteros, Antonio M. (1); Delgado, J. Manuel (1,2); Sousa, Joaquim João (3); Hanssen, Ramon F. (4); Caro, Miguel (5); Gil, Antonio J. (1); Galindo-Zaldívar, Jesús (6); Sanz de Galdeano, Carlos (7) 1: University of Jaen, Spain; 2: Progressive Systems Srl, Rome, Italy; 3: University of Trás-os-Montes e Alto Douro, Vila Real, Portugal; 4: Dept. of Geoscience and Remote Sensing, Delft University of Technology, Delft, The Netherlands; 5: TNO (The Netherlands); 6: Departamento de Geodinámica, Universidad de Granada and Instituto and Andaluz de Ciencias de la Tierra, CSIC-Universidad de Granada, Spain; 7: Instituto Andaluz de Ciencias de la Tierra (CSIC- Univ. Granada), Facultad de Ciencias, Universidad de Granada, Spain*
- 2 Post-earthquake Slope Stability Assessment in Mountains Area of Sichuan Region by Multitemporal SAR Interferometry  
*Parcharidis, Issaak (1); Baofeng, Diwu (2); Benekos, George (1); Derdelakos, Konstantinos (1); Xiaoxi, Hu (2); Mitoulaki, Sofia (1); Stamatopoulos, konstantinos (3) 1: Harokopio University of Athens, Greece; 2: Sichuan University, China; 3: Stamatopoulos and Associates L.T.D*
- 3 Application of Differential Interferometry for Analysis of Ground Movements in Albania  
*Fraseri, Neki (1,2); Bushati, Salvatore (2); Beqiraj, Gudar (2); Lamaj, Mentor (3); Avxhi, Albert (3); Moisiu, Ledi (3) 1: Polytechnic University of Tirana, Albania; 2: Akademia e Shkencave e Shqiperise; 3: Geological Service of Albania*
- 4 Terrestrial SAR Interferometry Monitoring For The Emergencies Management: A Case Study In Northern Italy  
*Mazzanti, Paolo (1,2); Brunetti, Alessandro (1) 1: NHAZCA S.r.l., Italy; 2: Department of Earth Sciences, "Sapienza" University of Rome, Italy*
- 5 Multi-temporal InSAR Analysis of Wenjiagou Landslide Using Distributed Scatterers  
*Wang, Chao (1); Zhang, zhengjia (1,2); zhang, hong (1); tang, yixian (1) 1: Institute of remote sensing and digital earth, CAS, China, People's Republic of; 2: University of Chinese Academy of Sciences, China, People's Republic of*
- 6 Application of Persistent Scatterer Interferometry (PSI) technique for deformation monitoring of large-scale landslides in mountainous areas of Western China  
*Qu, Tengting; Lu, Ping; Liu, Chun College of Surveying and Geo-Informatics, Center for Spatial Information Science and Sustainable Development Applications, Tongji University, Shanghai, , 200092, China*
- 7 Monitoring slow-moving landslides over Zhouqu, China with advanced InSAR time series technique  
*Sun, Qian (1,2); Zhang, Lei (1); Ding, Xiaoli (1); Hu, Jun (1,2); Li, Zhiwei (2); Zhu, Jianjun (2) 1: The Hong Kong Polytechnic University, Hong Kong S.A.R. (China); 2: Central South University*
- 8 Integrating InSAR, ALS and D-GNSS to monitor mass-movement on the Jurassic Coast  
*Ford, Andy Bournemouth University, United Kingdom*
- 9 RADARSAT-2 and TerraSAR-X InSAR Monitoring of a Coastal Landslide Along Railway Corridor  
*Charbonneau, Francois (1); Couture, Rejean (2); Cloutier, Catherine (3); Singhroy, Vern (1) 1: Canada Centre for Remote Sensing, Natural Resources Canada, Canada; 2: Geological Survey of Canada, Natural Resources Canada, Canada; 3: Universite Laval, Canada*
- 10 Evaluation of landslide hazard in the coastal zones of water reservoirs with SAR interferometry and field observations: a multi-frequency synergy approach  
*Perski, Zbigniew (1); Liu, Guang (2); Marinkovic, Petar (3); Wojciechowski, Tomasz (1); Fan, Jinghui (4); Wójcik, Antoni (1) 1: Polish Geological Institute - National Research Institute, Poland; 2: Center for Earth Observation and Digital Earth, Chinese Academy of Sciences, China; 3: PPO.Labs, The Netherlands; 4: China Aero Geophysical Survey and Remote Sensing Center for Land and Resources, China*
- 11 Multi-temporal Monitoring of Slow-moving Landslides in South Pindus Mountain Range, Greece  
*PSYCHOGYIOU, CHRISTINA (1); PAPOUTSIS, IOANNIS (1); KONTOES, CHARALAMBOS {HARIS} (1); POYIADJI, ELEFThERIA (2); SPANOu, NATALIA (2); KLIMIS, NIKOLAOS (3) 1: National Observatory of Athens, Greece; 2: Institute of Geology and Mineral Exploration, Athens, Greece; 3: Department of Civil Engineering, Section of Geotechnical Engineering, Democritus University of Thrace, Xanthi, Greece*
- 12 Landslides modelling and monitoring by exploiting satellite SAR acquisitions, optical imagery and in-situ measurements in Greece. Preliminary results  
*Elias, Panagiotis (1); Sykioti, Olga (1); Spyros, Neokosmidis (1); Demetrius, Paronis (1); Katerina, Kavoura (2); Nikolaos, Sabatakakis (2); Konstantinos, Chousianitis (1); George, Drakatos (1); Vassilis, Anastasopoulos (2); Briole, Pierre (3) 1: National Observatory of Athens, Greece; 2: University of Patras, Greece; 3: Ecole Normale Supérieure, Paris, France*
- 13 On the Potential of Satellite InSAR for Landslide Time of Failure Prediction

- Bozzano, Francesca (1); Mazzanti, Paolo (2); Rocca, Alfredo (3) 1: Earth Sciences Department and CERI Research Centre - Sapienza University of Rome, Italy; 2: Earth Sciences Department - Sapienza University of Rome, Italy; 3: NHAZCA S.r.l., Italy
- 14 Exploitation of Multi-Temporal SAR Interferometry for systems devoted to Environmental Monitoring and Risk Management Nutricato, Raffaele (1); Nitti, Davide Oscar (1); Bovenga, Fabio (2); Refice, Alberto (2); Wasowski, Janusz (3); Chiaradia, Maria Teresa (4); Milillo, Giovanni (5) 1: Geophysical Applications Processing srl, Bari, Italy; 2: CNR ISSIA, Bari, Italy; 3: CNR IRPI, Bari, Italy; 4: Politecnico di Bari, Bari, Italy; 5: Agenzia Spaziale Italiana, Centro di Geodesia Spaziale, Matera, Italy
- 15 Ground-based and Satellite Interferometric Observations of a Fast Moving Rock Glacier Complex (Ádjet mountain, North Norway) Rouyet, Line (1); Eriksen, Harald Øverli (1); Lauknes, Tom Rune (1); Hindberg, Heidi (1); Larsen, Yngvar (1); Eckerstorfer, Markus (1); Werner, Charles (2) 1: Norut, 9294 Tromsø, Norway; 2: Gamma Remote Sensing, 2073 Gümligen, Switzerland
- 16 Terrestrial Radar Interferometry for the Measurement of Active Rockglaciers over Distances of Several Kilometer Strozzi, Tazio (1); Wegmüller, Urs (1); Caduff, Rafael (1); Papke, Jessica (1); Raetzo, Hugo (2) 1: Gamma Remote Sensing and Consulting AG, Gümligen, Switzerland; 2: Federal Office for the Environment, Bern, Switzerland
- 17 Monitoring of a Landslide Induced by New Highway Construction Hlavacova, Ivana (1); Kolomaznik, Jan (2); Halounova, Lena (3) 1: Czech Technical University, Faculty of Civil Engineering, Czech Republic; 2: GISAT, s.r.o., Czech republic; 3: Czech Technical University, Faculty of Civil Engineering, Czech Republic
- 18 Using SAR Interferograms and Coherence Images for Object-Based Delineation of Unstable Slopes Friedl, Barbara; Hölbling, Daniel Department of Geoinformatics - Z\_GIS, University of Salzburg, Austria
- 19 Monitoring of landslide activity in Slovakia territory using multi-temporal InSAR techniques Bakon, Matus (1,2); Papco, Juraj (1); Perissin, Daniele (3); Lazecy, Milan (2,4); Sousa, Joaquim Joao (2,5); Hlavacova, Ivana (2,6); Batorova, Kristina (7); Ondrejka, Peter (8); Liscak, Pavel (8); Paudits, Peter (8) 1: Department of Theoretical Geodesy, Slovak University of Technology, Slovakia; 2: Universidade de Tras-os-Montes e Alto Douro, UTAD, Portugal; 3: School of Civil Engineering, Purdue University, USA; 4: IT4Innovations, VSB-TU, Czech Republic; 5: INESC TEC - INESC Technology and Science (formerly INESC Porto); 6: Czech Technical University in Prague, Czech Republic; 7: Department of Engineering Geology, Faculty of Natural Sciences, Comenius University in Bratislava, Slovakia; 8: State Geological Institute of Dionyz Stur, Slovakia
- 20 ESA G-POD service: new potential for the analysis and interpretation of surface deformation in mountain regions by exploiting the Parallel-SBAS technique Manconi, Andrea; Cignetti, Martina; Ardizzone, Francesca; Giordan, Daniele; Allasia, Paolo; De Luca, Claudio; Manunta, Michele; Casu, Francesco CNR, Italy
- 21 Inferring landslide pixels from radar images by applying GIS-based multi-criteria filtering analysis Fetene, Fasil Beyene TU-Clausthal, Germany
- 22 Monitoring of Landslide Activity in the Big Sochi Region (the Great Caucasus) using L, C, and X - band SAR Data Mikhailov, Valentin (1); Kiseleva, Elena (1); Smolyaninova, Ekaterina (1); Dmitriev, Pavel (1); Golubev, Vasily (1); Timoshkina, Elena (1); Hooper, Andy (2); Samiei-Esfahany, Sami (3); Hanssen, Ramon (3) 1: The Schmidt Institute of Physics of the Earth of the Russian Academy of Sciences (IPE RAS), Russian Federation; 2: School of Earth and Environment, University of Leeds, Leeds, UK; 3: Delft University of Technology, Delft, Stevinweg 1,2628 CN Delft, NL, The Netherlands
- 23 Investigating the Potential of Very High Resolution TerraSAR-X and High Resolution Sentinel-1A Data for Landslide Movement Monitoring Anderssohn, Jan; Riedmann, Michael; Lang, Oliver; Bindrich, Maik Airbus Defence and Space, Germany
- 24 Mapping flooded areas and terrain displacements in the ravine La Cantuta (Lima, Peru) by means of Cosmo-Sky-Med interferometric data Villacorta, Sandra (1); Nico, Giovanni (3); Sacco, Patrizia (2); Gonzales, Katherine (1) 1: Instituto Geológico, Minero y Metalúrgico, Perú; 2: Università della Basilicata, Scuola di Ingegneria (Italy); 3: Consiglio Nazionale delle Ricerche, Istituto per le Applicazioni del Calcolo, Italy
- 25 SkyGeo - Transitioning to Wide-Coverage and High-Resolution Oyen, Anneleen; Aguilera, Esteban; Schouten, Mathijs SkyGeo
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- 28 Monitoring the Construction of M-30 Tunnels under Madrid City (Spain)  
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- 34 Cartography of the Belgian monuments at risk via PSI analysis of the ground movements, the GEPATAR project.  
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- 35 Monitoring Structure and Regional-level Displacements for Lisbon Using Multi-temporal InSAR Techniques  
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- 36 Surface Deformation Monitoring of Berlin by Satellite based Radar Data  
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- 57 Detection of Uranium Mill Tailings Cover Erosion Rates and Settlement Using Satellite-Based Radar Interferometry

- 58 *Necsoiu, Marius; Walter, Gary R. Geosciences and Engineering Division, Southwest Research Institute®, 6220 Culebra Rd, San Antonio, TX, 78238, USA*  
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- 66 Using PSI for assessing ground subsidence risk in the Scheldt estuary  
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- 67 Monitoring the effects of peatland restoration and peat subsidence in Indonesia using InSAR time series  
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- 70 Is Glacial Isostatic Adjustment continuing in Scotland? Insights from InSAR and GPS observations.  
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- 72 Monitoring uplift in the area of Lesina Marina (Southern Italy) through PSInSAR: interpreting 20 years of data  
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- 73 Mechanical modeling of surface salt in Kuqa fold-thrust belt, northwestern China  
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- 74 Insight into activity of Anguru salt diapir (Southeast of Zagros, Iran) by InSAR time series analysis  
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- 75 DInSAR analysis reveals bulging of Azerbaijan mud volcano edifices before an eruption  
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- 76 Global patterns of volcano deformation from satellite observations  
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- 77 Automatic Detection of Volcanic Unrest from Space using InSAR  
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- 85 Two Decades of Magma Supply to the Galápagos Volcanoes Inferred from InSAR and GPS Time-series  
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- 86 SBAS-InSAR Analysis of a Decade of Surface Deformation at Mauna Loa (Hawai`i): Preliminary Results  
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- 87 Modelling of ground deformation at Mt Etna observed with the MSBAS InSAR during 2009-2013  
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- 89 Advanced SAR Interferometric Techniques for Monitoring Nonlinear Volcanic Deformation - Test Site El Hierro Island  
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- 90 Revealing the volcanic process of El Hierro through InSAR and GPS time series  
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- 93 High resolution deformation maps of Volcán de Colima, Mexico, derived from a year-long TerraSAR-X Spotlight time series  
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- 94 Remote Sensing and Stress Transfer Analysis Study of Volcano-Tectonic Interactions in Central America  
*Wnuk, Kendall Coleman; Wauthier, Christelle; LaFemina, Peter; Geirsson, Halldor Pennsylvania State University, United States of America*
- 95 InSAR Mapping of displacements and lava flows related to recent eruptions (2010-2014) at Piton de la Fournaise  
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- 96 Modelling the Eastern Flank Displacement of Piton de la Fournaise volcano (Réunion Island) observed by InSAR after the April 2007 eruption  
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- 97 Volcano Deformation and Modeling on Active Volcanoes in the Philippines from ALOS InSAR Time Series  
*Morales Rivera, Anieri Marie; Amelung, Falk University of Miami, United States of America*
- 98 Deformation Monitoring of Sangihe and Halmahera Volcanic Arcs, northeastern Indonesia from Regional Time Series InSAR Survey  
*Zhang, Yunjun; Amelung, Falk Rosenstiel School of Marine and Atmospheric Science, University of Miami, United States of America*
- 99 Application of Satellite-based L-band Interferometric Synthetic Aperture Radar to Volcano Deformation Processes in Japan  
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- 100 High Rate Earth Surface Subsidence Monitoring Using TerraSAR-X data with SAR Interferometry  
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