

Program

(D1): ISAR (I)

Chairs: Patrick Berens (Fraunhofer FHR, Germany), Gianfranco Fornaro (CNR-IREA, Italy)

3D InISAR target reconstruction using airborne PAMIR data

Anna Fontana (Fraunhofer Institut- FHR/ARB, Germany); Patrick Berens (Fraunhofer FHR, Germany); Daniele Staglianò (University of Pisa & National Inter-University Consortium for Telecommunications (CNIT), Italy); Marco Martorella (University of Pisa, Italy)

3D InISAR Imaging by using Multi-temporal Data

Elisa Giusti (University of Pisa, Italy); Federica Salvetti (CNIT-RaSS & University of Pisa, Italy); Daniele Staglianò (University of Pisa & National Inter-University Consortium for Telecommunications (CNIT), Italy); Marco Martorella (University of Pisa, Italy)

A Multi Channel Antenna Setup for Trajectory Estimation of Moving Targets for ISAR Imaging Using Time Difference of Arrival with the HITCHHIKER Noise Radar

Simon Reuter (University of Siegen & Center for Sensorsystems (ZESS), Germany); Florian Behner (University of Siegen, Germany); Holger Nies (University of Siegen & Center for Sensorsystems (ZESS), Germany); Otmar Loffeld (Center for Sensorsystems (ZESS), University of Siegen, Germany)

Comparison of Fast and Accurate Parametric ISAR Motion Compensation Techniques

Carlo Noviello (IREA-CNR & University of Napoli Federico II, Italy); Gianfranco Fornaro (CNR-IREA, Italy); Marco Martorella (University of Pisa, Italy)

Sequential ISAR Imaging of Ground Moving Targets

Xiao Dong, Yunhua Zhang and Wenshuai Zhai (Center for Space Science and Applied Research, Chinese Academy of Sciences, P.R. China)

(E1): SAR Polarimetry: Techniques and Applications (invited)

Chairs: Laurent Ferro-Famil (University of Rennes 1, France), Jakob van Zyl (Jet Propulsion Laboratory, USA)

Simple Method of Landslide Recognition Using Polarimetric Scattering Power Decomposition

Yoshio Yamaguchi, Takashi Shibayama, Hiroyoshi Yamada and Ryoichi Sato (Niigata University, Japan)

Crop Height Estimation of Rice Fields by X- and C- Band

Onur Yuzugullu (ETH Zurich, Switzerland); Esra Erten (Istanbul Technical University, Turkey); Irena Hajsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

Assessment of L-Band SAR Polarimetry for Soil and Crop Monitoring

Matias Barber (Instituto de Astronomía y Física del Espacio, Argentina); Carlos López-Martínez (Universitat Politècnica de Catalunya (UPC), Spain); Francisco Matias Grings (Instituto de Astronomía y Física del Espacio, Argentina)

An empirical optimisation strategy for Model-based Polarimetric Target Decomposition

Anthony P Doulgeris (UiT The Arctic University of Norway, Norway); Torbjørn Eltoft (UiT The Arctic University of Norway)

Decomposition of Polarimetric Scattering Based on Spectral Decomposition Techniques

Jakob van Zyl (Jet Propulsion Laboratory, USA)

(F1): Airborne SAR Processing and Applications (I)

Chairs: Ernst Krogager (Danish Defence Acquisition and Logistics Organization (DALO) & LU-VV06, Denmark), Andrea Loinger (Airbus Defence and Space, Germany)

3-D SAR Imaging of African Forests: Results from the AfriSAR Campaign at P- and L-Band

Irena Hajsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Matteo Pardini, Ralf Horn, Rolf Scheiber and Marc Jäger (German Aerospace Center (DLR), Germany); Martin Keller (DLR, Germany); Daniel Geßwein and Konstantinos P. Papathanassiou (German Aerospace Center, Germany); Andreas Reigber (German Aerospace Center (DLR), Germany)

Forest Analysis by Single-Pass Millimeterwave SAR Tomography

Michael Schmitt (Technical University of Munich (TUM), Germany); Xiao Xiang Zhu (German Aerospace Center (DLR), Remote Sensing Technology & Technical University of Munich (TUM), Signal Processing in Earth Observation, Germany)

Preliminary results of the AfriSAR campaign

Pascale Dubois-Fernandez and Xavier Dupuis (ONERA, France); Pierre Capdessus (ONERA, Institut Fresnel, France); Rémi Baque (ONERA, France)

Demonstration of Advanced SAR for Applications in the Arctic

Ernst Krogager (Danish Defence Acquisition and Logistics Organization (DALO) & LU-VV06, Denmark); Stig von Platen Rosenmunthe and Jan Hartvigsen (Danish Defence Acquisition and Logistics Organization, Denmark)

Tropical forest biomass retrieval using P-band PolTomSAR data

Bassam El Hajj Chehade (University of Rennes, France); Laurent Ferro-Famil (University of Rennes 1, France); Ho Tong Minh Dinh and Thuy Le Toan (CESBIO, France); Stefano Tebaldini (Politecnico di Milano, Italy)

(G1.1): Sentinel 1 Mission (invited)

Chairs: Ramon Torres (European Space Agency & ESTEC, The Netherlands), Betlem Rosich (European Space Agency (ESA/ESRIN), Italy)

Sentinel-1B Independent In-Orbit System Calibration - First Results -

Marco Schwerdt, Kersten Schmidt, Nuria Tous-Ramon, Gabriel Castellanos Alfonzo and Björn J. Döring (German Aerospace Center (DLR), Germany); Manfred Zink (DLR, Germany); Pau Prats (German Aerospace Center (DLR), Germany)

Sentinel-1 Mission Status

Pierre Potin (European Space Agency (ESA/ESRIN)); Betlem Rosich (European Space Agency (ESA/ESRIN), Italy); Patrick Grimont (European Space Agency / ESRIN, Italy); Nuno Miranda (European Space Agency & ESRIN, Italy); Ian Shurmer (ESA ESOC, Germany); Alistair O'Connell (European Space Agency / ESOC, Germany); Ramon Torres (European Space Agency & ESTEC, The Netherlands); Mike Krassenburg (ESA ESTEC, The Netherlands)

Sentinel-1 SAR Interferometry Performance Verification

Dirk Geudtner (European Space Agency, The Netherlands); Pau Prats and Nestor Yague-Martinez (German Aerospace Center (DLR), Germany); Ignacio Navas-Traver and Itziar Barat (European Space Agency, The Netherlands); Ramon Torres (European Space Agency & ESTEC, The Netherlands)

Sentinel-1B LEOP an Commissioning: First Results

Ramon Torres (European Space Agency & ESTEC, The Netherlands); Svein Lokas (European Space Agency, The Netherlands); David Bibby (European Space Agency, United Kingdom); Dirk Geudtner (European Space Agency, The Netherlands)

The Copernicus Sentinel-1 Constellation Product Quality and Preliminary Calibration Results

Nuno Miranda (European Space Agency & ESRIN, Italy); Peter Meadows (BAE Systems Applied Intelligence, United Kingdom); Alan Pilgrim (BAE Systems Advanced Technology Centre, United Kingdom); Guillaume Hajduch (CLS, France); Riccardo Piantanida (Aresys, Italy); Davide Giudici (Aresys srl, Italy); Andrea Recchia (Politecnico di Milano, Italy); David Small (University of Zurich, Switzerland); Adrian Schubert (Remote Sensing Laboratories, University of Zurich, Switzerland); Alexis Mouche (CLS, France); Harad Johnsen (Norut & University of Tromsø, Norway)

(G2.1): MIMO Imaging (invited)

Chairs: Joachim H. G. Ender (Fraunhofer FHR & Universität Siegen, Germany), Jens Klare (Fraunhofer FHR, Germany)

[MIMO concept for the imaging radar of the radar warning and information system RAWIS](#)

Oliver Biallowons, Jens Klare, Robert Klenke and Reinhard Panhuber (Fraunhofer FHR, Germany)

[Concepts for 3D MIMO imaging of buildings](#)

Joachim H. G. Ender (Uni Siegen); Fabio Giovanneschi and Lars Fuhrmann (Uni Siegen, Germany)

[Experimental demonstration of distributed MIMO imaging](#)

Ingo Walterscheid (Fraunhofer FHR, Germany); Graeme Smith (The Ohio State University, USA); Joachim H. G. Ender (Fraunhofer FHR & Universität Siegen, Germany); Chris Baker (Aveillant, United Kingdom)

[MIMO imaging for next generation passenger security systems](#)

Reinhold Herschel, Stefan Lang and Nils Pohl (Fraunhofer FHR, Germany)

[MIMO-SAR Tomography](#)

Gerhard Krieger (DLR, Germany); Tobias Rommel (German Aerospace Center (DLR), Germany); Alberto Moreira (German Aerospace Center - DLR, Germany)

(D2): ISAR (II)

Chairs: Michael Völker (Airbus DS GmbH, Germany), Eric Schreiber (German Aerospace Center (DLR), Germany)

[A Fast 3-D Cylindrical Scanning Near-Field ISAR Imaging Approach With Extended Far-Field RCS Extraction Based On a Modified Focusing Operator](#)

Thomas Vaupel (Fraunhofer FHR, Germany)

[MMW ISAR Concept for Detection of Impurities in Sugar Production](#)

Tobias Albers, Markus Peichl and Stephan Dill (German Aerospace Center (DLR), Germany); Timo Kempf (German Aerospace Center, Germany)

[A TOPSAR Processor based on the Omega-K Algorithm: Evaluation with Sentinel-1 Data](#)

Murielle Kirkove and Anne Orban (University of Liege, Belgium); Dominique Derauw and Christian Barbier (Centre Spatial de Liège, Belgium)

[IoSiS - A high-performance imaging radar for surveillance of objects in low earth orbit](#)

Simon Anger (German Aerospace Center (DLR) & Microwaves and Radar Institute, Germany); Markus Peichl and Stephan Dill (German Aerospace Center (DLR), Germany); Matthias Jirousek (DLR German Aerospace Center, Germany); Eric Schreiber (German Aerospace Center (DLR), Germany)

[Adaptive Compressed Sensing for High-Resolution ISAR Imaging](#)

Shun-Sheng Zhang and Yong-Qiang Zhang (University of Electronic Science and Technology of China, P.R. China)

(E2): SAR Polarimetry: Techniques and Applications (invited)

Chairs: Laurent Ferro-Famil (University of Rennes 1, France), Carlos López-Martínez (Universitat Politècnica de Catalunya (UPC), Spain)

[Preliminary Calibration and Application Results of C- and P-band Airborne Polarimetric SAR Data in China](#)

Xinwu Li (Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, P.R. China); Huadong Guo and Lu Zhang (Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences); Lei Liang and Wenjin Wu (Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, P.R. China)

[The Use of the L2-Norm for the Analysis of Texture on PolSAR Data](#)

Xinping Deng and Carlos López-Martínez (Universitat Politècnica de Catalunya (UPC), Spain)

[Change analysis and interpretation in polarimetric time series over agricultural fields at C-band](#)

Alberto Alonso-González (German Aerospace Center (DLR), Germany); Hannah Joerg (German Aerospace Center & ETH Zürich, Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany); Irena Hajsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

[Study of the impact of Polarization for Distributed Targets Interferometry](#)

Alessandro Parizzi and Fernando Rodriguez Gonzalez (German Aerospace Center (DLR), Germany); Michael Eineder (German Aerospace Center (DLR) & Technische Universität München, Germany)

(F2): Airborne SAR Processing and Applications (II)

Chairs: Markus Limbach (German Aerospace Center (DLR), Germany), Rolf Scheiber (German Aerospace Center (DLR), Germany)

[Multi-mode Real-Time SAR On-Board Processing](#)

Russel Que, Octavio Ponce, Stefan V. Baumgartner and Rolf Scheiber (German Aerospace Center (DLR), Germany)

[Recent Results of High Resolution Ground Image Formation Using Miniaturized C-Band Synthetic Aperture Radar](#)

Piotr Samczynski, Damian Gromek, Jędrzej Drozdowicz, Maciej Wielgo, Karol Klincewicz, Adam Grabowski, Marcin Baczyk and Krzysztof S Kulpa (Warsaw University of Technology, Poland)

[Radio frequency interference detection and mitigation techniques using data from EcoSAR 2014 Flight Campaign](#)

Batuhan Osmanoglu (USRA - NASA GSFC, USA); Rafael Rincon (NASA/Goddard Space Flight Center, USA); SeungKuk Lee (NASA Goddard Space Flight Center, USA); Temilola Fatoyinbo (NASA, USA); Tobias Bollian (USRA - NASA GSFC, USA)

[Characterization of Radar Targets - a Review of Polarimetric Descriptors Applied to Recent F-SAR Data](#)

Ernst Krogager (Danish Defence Acquisition and Logistics Organization (DALO) & LU-VV06, Denmark); Stig von Platen Rosenmunthe (Danish Defence Acquisition and Logistics Organization, Denmark); Andreas Reigber (German Aerospace Center (DLR), Germany); Martin Keller (DLR, Germany); Marc Jäger (German Aerospace Center (DLR), Germany); Wolfgang Boerner (UIC Chicago, USA)

[DLR - F-SAR P-Band Antenna - Design, Measurements and Results](#)

Markus Limbach (German Aerospace Center (DLR), Germany)

(G1.2): Kompsat 6 (invited)

Chairs: Jin Hee Kim (Korea Aerospace Research Institute, Korea), Seonho Lee (Korea Aerospace Research Institute, Korea)

[KOMPSAT-6 Mission, Operation Concept, and System Design](#)

Seonho Lee, Jae Cheol Yoon and Jin Hee Kim (Korea Aerospace Research Institute, Korea)

[KOMPSAT-6 SAR Payload System Design](#)

Yong-Chul Hwang (Korea Aerospace Research Institute, Korea)

[Operation Concept of KOMPSAT-6 Ground Segment](#)

Chiho Kang, Okchul Jung, Taebong Oh, Dochul Yang and Gabho Jeun (Korea Aerospace Research Institute, Korea)

[SAR Processing by a modified CSA based algorithm with a delicate azimuth matched filter ETF4ZDT](#)

Dong H Kim (Korea Aerospace Research Institute & Satellite Information Center, Korea); Byoung Gyun Lim, Dong-Han Lee, Jae Cheol Yoon, Dochul Yang and Horyung Jeong (Korea Aerospace Research Institute, Korea)

[Kompsat-5/6 SAR Interferometry](#)

Dochul Yang, Okchul Jung and Dong-Han Lee (Korea Aerospace Research Institute, Korea)

(G2.2): MIMO SAR

Chairs: Gerhard Krieger (DLR, Germany), Junghyo Kim (Airbus DS GmbH & Space System, Germany)

[Detection of Multipath Propagation Effects in SAR-Tomography with MIMO Modes](#)

Tobias Rommel (German Aerospace Centre (DLR), Germany); Gerhard Krieger (DLR, Germany)

[SIMO and MIMO System Architectures and Modes for High-Resolution Ultra-Wide-Swath SAR Imaging](#)

Gerhard Krieger (DLR, Germany); Sigurd Huber and Michelangelo Villano (German Aerospace Center (DLR), Germany); Felipe Queiroz de Almeida (German Aerospace Center (DLR) & Microwaves and Radar Institute, Germany); Marwan Younis, Paco López-Dekker and Pau Prats (German Aerospace Center (DLR), Germany); Marc Rodriguez-Cassola (DLR, Germany); Alberto Moreira (German Aerospace Center - DLR, Germany)

[MIMO-SAR Waveform Design Using Modified Costas Pulses](#)

Mahdi Khosravi, Mohammad Hassan Bastani and Mohammad Mahdi Nayebi (Sharif University of Technology, Iran)

[A Novel 3-D Imaging Algorithm for Downward-Looking MIMO Array SAR](#)

Bin Liao (School of Electronic Science and Engineering National University of Defense Technology, P.R. China); Dahai Dai, Shiqi Xing, Bo Pang and Xuesong Wang (National University of Defense Technology, P.R. China)

(D3): MTI and GMTI

Chairs: Stefan V. Baumgartner (German Aerospace Center (DLR), Germany), Ludger Prünte (Fraunhofer-Institut für Hochfrequenzphysik und Radartechnik FHR, Germany)

[Compressed Sensing for Removing Moving Target Artifacts and Reducing Noise in SAR Images](#)

Ludger Prünte (Fraunhofer-Institut für Hochfrequenzphysik und Radartechnik FHR, Germany)

[Experimental result for SAR GMTI using monostatic pursuit mode of TerraSAR-X and TanDEM-X on Staring Spotlight images](#)

Thomas K Sjögren (Swedish Defence Research Agency, Sweden); Vu Viet Thuy and Mats Pettersson (Blekinge Institute of Technology, Sweden)

[A Priori Knowledge-Based STAP for Traffic Monitoring Applications: First Results](#)

Andre da Silva (German Aerospace Center (DLR) & German Academic Exchange Service (DAAD), Germany); Stefan V. Baumgartner (German Aerospace Center (DLR), Germany)

[high resolution airborne SAR/GMTI using a 2 channel antenna](#)

Helene Oriot and Hubert M.J. Cantalloube (ONERA, France); Abigael Taylor (ONERA, the French Aerospace Lab, France); Laurent Savy (ONERA, France)

[Knowledge Aided STAP/GMTI with Subarrayed AESA Radar](#)

Wolfram Bürger (Fraunhofer FHR, Germany); Ivana Perna (Fraunhofer FHR, Germany)

(E3): Polarimetry (I)

Chairs: Yoshio Yamaguchi (Niigata University, Japan), Michael Völker (Airbus DS GmbH, Germany)

[Numerical Study on Multi-baseline POLSAR Scattering Component Decomposition](#)

Hiroyoshi Yamada, Ryoichi Sato and Yoshio Yamaguchi (Niigata University, Japan)

[Analysis of Polarimetric-Dependent InSAR Coherence Modulation Arising from Deep Electromagnetic Ground Penetration](#)

Kamalesh Sainath (Ohio State University & ElectroScience Laboratory, USA); Scott Hensley (Jet Propulsion Laboratory, USA)

[Dual-Channel PolSAR Speckle Reduction Using Non-Local Means Filter](#)

Jingliang Hu (German Aerospace Center DLR, Germany); Andreas Schmitt (German Aerospace Center, Germany); Xiao Xiang Zhu (German Aerospace Center (DLR), Remote Sensing Technology & Technical University of Munich (TUM), Signal Processing in Earth Observation, Germany)

[Quantitative Analysis of The General Polarimetric Model-based Decomposition Technique by Using Monte Carlo Simulations](#)

Qinghua Xie (Central South University & Institute for Computing Research (IUII), University of Alicante, Spain); Josep David Ballester-Berman (Institute for Computing Research (IUII), University of Alicante, Spain); Juan Manuel Lopez-Sanchez (University of Alicante, Spain); Jianjun Zhu and Changcheng Wang (Central South University, P.R. China)

[Bag-of-Visual-Words Model for Classification of Interferometric SAR Images](#)

Nazli Deniz Cagatay (German Aerospace Center (DLR), Germany); Mihai Datcu (German Aerospace Center, Germany)

(F3): Ocean Waves and Currents (invited)

Chairs: Roland Romeiser (University of Miami, USA), Paco López-Dekker (German Aerospace Center (DLR), Germany)

Spectral interpretation of CoSAR imaging and its implications to the observation of ocean waves

Paco López-Dekker (German Aerospace Center (DLR), Germany); Gordon Farquharson (University of Washington, USA); Marc Rodriguez-Cassola (DLR, Germany)

[Estimating Nearshore Ocean Currents from Airborne ATI-SAR](#)

Gordon Farquharson and Shadi Aslebagh (University of Washington, USA); Roland Romeiser (University of Miami, USA)

[Reprocessing of TerraSAR-X Divided-Antenna Mode Data for Current Retrievals in Coastal Areas and Rivers](#)

Roland Romeiser (University of Miami, USA)

[Ocean Imaging with the NRL Multichannel SAR System](#)

Robert W Jansen, Mark A Sletten and Jakov V. Toporkov (Naval Research Lab, USA); Steven Menk and Raghu Raj (Naval Research Laboratory, USA); Luke Rosenberg (DSTO & University of Adelaide, Australia)

[Eigenvalue Analysis of Airborne Multichannel Sea Data for Ocean Monitoring](#)

Valeria Gracheva (Fraunhofer FHR, Germany); Joachim H. G. Ender (Fraunhofer FHR & Universität Siegen, Germany)

(G1.3): Special Invited Session on Space Programs and Roadmaps

Chairs: Grzegorz Adamiuk (Airbus DS GmbH, Germany), Thomas Fuegen (Airbus DS GmbH, Germany)

The Role of Radar in NASA's Earth and Planetary Exploration Programs

Scott Hensley (Jet Propulsion Laboratory, USA)

Polish Satellite Programs

Marek Banaszkiwicz (Polish Space Agency, Poland)

From X-SAR to HRWS. Status and Evolution of Spaceborne Radar at Airbus DS Germany

Sebastian Riegger (Airbus DS GmbH, Germany)

PAZ and TerraSAR-X constellation, innovation through international cooperation

Fernando Cerezo Martínez (HISDESAT Servicios Estratégicos, Spain)

(G2.3): Advanced SAR Modes and Techniques (I)

Chairs: Josef Hermann Martin Mittermayer (German Aerospace Center (DLR), Germany), Michelangelo Villano (German Aerospace Center (DLR), Germany)

[Small Satellite Dispersed SAR - An Exemplary Configuration](#)

Josef Hermann Martin Mittermayer, Paco López-Dekker and Thomas Kraus (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

Characteristics of a SAR with 2D steering capability

David Hall (Airbus DS Ltd, United Kingdom); Mike Winser (AIRBUS D&S UK, United Kingdom); Michael Bolt and Michael Notter (Airbus DS Ltd, United Kingdom); Pedro Lau Semedo and Phil Watson (Airbus Defence & Space Ltd, United Kingdom); Roy Wasdell, Geoff Burbidge and Samuel Doody (Airbus DS Ltd, United Kingdom)

Reconsideration of Ambiguities in Quad-Pol SAR

Michelangelo Villano (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany); Alberto Moreira (German Aerospace Center - DLR, Germany)

Calibration Concept for Weakly-Synchronised SAR Companion Missions: ESA's SAOCOM/CS case

Marc Rodriguez-Cassola (DLR, Germany); Pau Prats, Matteo Nannini and Paco López-Dekker (German Aerospace Center (DLR), Germany); Alberto Moreira (German Aerospace Center - DLR, Germany); Bernardo Carnicero Dominguez (ESA, The Netherlands)

Study On Scan-GMTI For Spaceborne SAR

Mingjie Zheng (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Jili Sun (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Weidong Yu and Lijuan Qi (Institute of Electronics, Chinese Academy of Sciences, P.R. China)

A Posters

Chairs: Christoph Heer (Airbus DS GmbH, Germany), Martin Stangl (Airbus Defence and Space, Germany)

Moving Target Imaging Detection for Millimeter-wave InSAR

Dao-jing Li (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Meng Ma, Jian-bo Du, Xuan Hu, Ming Qiao and Jian-wei Zhou (Institute of Electronics, Chinese Academy of Sciences)

Backscatter Power Measurement of Canonical Targets under GB-SAR Environment

Narathep Phruksahiran (Chulachomklao Royal Military Academy, Thailand); Madhukar Chandra (TU-chemnitz, Germany)

Image Quality Measurement Result of KOMPSAT-5 Enhanced Mode

Horyung Jeong (Korea Aerospace Research Institute, Korea); Dong H Kim (Korea Aerospace Research Institute & Satellite Information Center, Korea); Dochul Yang and Dong-Han Lee (Korea Aerospace Research Institute, Korea)

The DALO-ARCTIC campaign: Multi-spectral SAR Imaging of Ice Features in Greenland

Andreas Reigber (German Aerospace Center (DLR), Germany); Ernst Krogager (Danish Defence Acquisition and Logistics Organization (DALO) & LU-VV06, Denmark); Martin Keller (DLR, Germany); Marc Jäger (German Aerospace Center (DLR), Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Ralf Horn (German Aerospace Center (DLR), Germany)

Perspective of utilization of the spaceborne P-band SAR together with L/S-band SAR

Boris Georgievich Kutuza (Russian Academy of Sciences, Russia); Anatoliy Kalinkevich (Institute of Radio Engineering and Electronics, Russia); Vladimir Stasevich (NPP ROBIS, 1, Russia); Yuri Smirnov (RSC ENERGY, Russia); Vladimir Turuk (JSC Radio Engineering Corporation VEGA, Russia); Alexander Zaharov (Kotel'nikov Institute of Radio Engineering and Electronics of RAS, Russia)

Analysing Perturbation Effects on Inclined Geosynchronous SAR Focusing

Xichao Dong and Cheng Hu (Beijing Institute of Technology, P.R. China); Mingming Bian (Qian Xuesen Laboratory of Space Technology & China Academy of Space Technology, P.R. China); Zegang Ding, Tian Weiming and Di Yao (Beijing Institute of Technology, P.R. China)

Radar Imaging and Tracking Using Geostationary Communication Satellite Systems

Holger Nies (University of Siegen & Center for Sensorsystems (ZEISS), Germany); Florian Behner (University of Siegen, Germany); Simon Reuter and Simon Meckel (University of Siegen & Center for Sensorsystems (ZEISS), Germany); Otmar Loffeld (Center for Sensorsystems (ZEISS), University of Siegen, Germany)

Resolution of CSAR imaging by Incoherent addition

Leping Chen and Daoxiang An (National University of Defense Technology, P.R. China); Xiaotao Huang (National University of Defense Technology, P.R. China)

B Posters

Chairs: Christoph Heer (Airbus DS GmbH, Germany), Martin Stangl (Airbus Defence and Space, Germany)

[Polarimetric Calibration Error and System Key Parameters Analysis Based on Point Targets](#)

Fan Wang (Nanjing Research Institute of Electronic Technology, P.R. China); Aifang Liu and Dong Mu (Nanjing Research Institute of Electronics Technology, P.R. China); Hui Xu (Nanjing Research Institute of Electronic Technology, P.R. China)

[Multi-channel modes implementation in spaceborne SAR with digital active electronically scanned array](#)

Maxim Bulygin (Research Institute of Precision Instruments, Russia); Alexander Kovalenko (Scientific and Research Institute of Precise Instruments, Russia); Victor Riman and Sergey Vnotchenko (Research Institute of Precision Instruments, Russia)

[Effects of Doppler Centroid Error on Azimuth Ambiguity in Along-track Multi-channel SAR Systems](#)

Shiqi Ge (Nanjing Research Institute of Electronics Technology (NRIET), P.R. China); Aifang Liu and Dong Mu (Nanjing Research Institute of Electronics Technology, P.R. China)

[A Study and Test on SAR-Communication Integrative System](#)

Mingxing Shen (East-China Research Institute of Electronic Engineering); Bocai Wu, Long Sun, Kai Jiang, Hailong Yu and Shanxiang Hu (East-China Research Institute of Electronic Engineering, P.R. China)

[Real Test SAR System Experiment on the Ground for Demonstrating Non-Linear Frequency Modulation Waveforms](#)

Wei Wang (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Robert Wang (Institute of Electronics, Chinese Academy of Sciences & University of Siegen, P.R. China)

[Study of Scattering Properties of Oil platforms in Caspian Sea as Stable Radar Scatterers according to PALSAR Data](#)

Alexander I Zakharov (Institute of radioengineering and electronics, Russia); Ludmila Zakharova (Institute of Radioengineering and Electronics RAS, Russia); Mark Sorochinsky (Institute of Radioengineering and Electronics, Russia)

[Reduction of Cross-polarization on a Single Offset Parabolic Re-flector using Digital Beam Forming Techniques and Combination of Elements](#)

Carolina Tienda (German Aerospace Center, Germany); Marwan Younis (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

[Analysis of an Improved Temperature Management Concept for SAR System Calibration Transponders](#)

Sebastian Raab, Björn J. Döring, Daniel Rudolf, Jens Reimann and Marco Schwerdt (German Aerospace Center (DLR), Germany)

[A Novel Application of Spotlight Bistatic Forward-looking SAR](#)

Leping Chen (National University of Defense Technology, P.R. China)

[A Miniaturized High Resolution SAR Processor Using FPGA](#)

Daiyin Zhu (Nanjing University of Aeronautics and Astronautics, P.R. China); Yong Li (Nanjing University of Aeronautics & Astronautics, P.R. China); Yong Ding and Jiangzhe Guo (Nanjing University of Aeronautics and Astronautics, P.R. China)

C Posters

Chairs: Christoph Heer (Airbus DS GmbH, Germany), Martin Stangl (Airbus Defence and Space, Germany)

[SAR Imaging of Moving Target Using Knowledge-aided Two-dimensional Autofocus](#)

Xinhua Mao, He Yan and Daiyin Zhu (Nanjing University of Aeronautics and Astronautics, P.R. China); Conference Papers (VDE, Germany)

[2-D GMTI based on SAR Interferogram's Magnitude and Phase](#)

Hongchao Zheng, Junfeng Wang, Xingzhao Liu and Yuezheng Su (Shanghai Jiao Tong University, P.R. China)

[Clutter Suppression and Parameter Estimation Based on the Relax Algorithm in WAS-GMTI Mode](#)

He Yan (Nanjing University of Aeronautics and Astronautics, P.R. China); Robert Wang (Institute of Electronics, Chinese Academy of Sciences & University of Siegen, P.R. China); Jindong Zhang, Xinhua Mao, Di Wu and Daiyin Zhu (Nanjing University of Aeronautics and Astronautics, P.R. China); Yong Li (Nanjing University of Aeronautics & Astronautics, P.R. China); Yanshu Mao (Nanjing University of Aeronautics and Astronautics, P.R. China)

[Interferometric ISAR Imaging Using Compressed Sensing](#)

Liechen Li (NRIET, P.R. China); Bo Liu (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Aifang Liu and Dong Mu (Nanjing Research Institute of Electronics Technology, P.R. China)

[A Data Block Partition based Fast Factorized BP Algorithm for Bistatic SAR](#)

Da Ran, Can-bin Yin and Xin Jia (Equipment Academy, P.R. China)

[Enhanced Back Projection Algorithm for Linear Frequency Diverse Array Synthetic Aperture Radar Imaging](#)

Can-bin Yin, Da Ran and Xin Jia (Equipment Academy, P.R. China)

[Real Data Aided Imaging Simulation for Frequency Hopping Inverse Synthetic Aperture Radar](#)

Can-bin Yin, Da Ran and Xin Jia (Equipment Academy, P.R. China)

[Extraction of SAR Image at a Specific Height Using Multi-Baseline SAR Interferometric Phases](#)

Yumiko Katayama and Noboru Oishi (Mitsubishi Electric Corporation, Japan); Teruyuki Hara (Mitsubishi Electric Corp., Japan)

[A Novel Signal Processing Algorithm for Staggered SAR with low oversampling factors](#)

Xiangyu Wang (Institute of Electronics, Chinese Academy of Sciences & Graduate University, Chinese Academy of Sciences, P.R. China); Robert Wang (Institute of Electronics, Chinese Academy of Sciences & University of Siegen, P.R. China)

[IAA- and SPICE-based Super-resolution wide area imaging methods](#)

Lijuan Qi, Weidong Yu, Mingjie Zheng, Ning Li and Lili Hou (Institute of Electronics, Chinese Academy of Sciences, P.R. China)

[Signal Processing of InISAR with Long Orthogonal Baselines for Air Target Three-dimensional Localization](#)

Meng Ma (Institute of Electronics/Chinese Academy of Sciences, P.R. China); Dao-jing Li (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Jian-bo Du and Ming Qiao (Institute of Electronics/Chinese Academy of Sciences, P.R. China)

[Accuracy Analysis for Ionospheric Scintillation Correction with Estimating Faraday Rotation in Spaceborne P-band SAR Data](#)

Wei Guo (Beihang University, P.R. China); Jie Chen (School of Electronics and Information Engineering, Beihang University, P.R. China); Zhuo LI and Pengbo Wang (Beihang University, P.R. China); Sun Bing (School of Electronics and Information Engineering, Beihang University, P.R. China)

[A Nonlinear Chirp Scaling Algorithm for Squint Sliding Spotlight Mode SAR](#)

Yu Zhu (Chinese Academy of Space Technology, P.R. China); Bin Xiong, Zegang Ding and Feng Xiao (Beijing Institute of Technology, P.R. China)

[Orthogonal Resolution Analysis for Squint SAR Image](#)

Bing Sun (School of Electronic and Information Engineering, Beihang University, P.R. China); Hailun Xu (Beihang University, P.R. China); Wang Ye (School of Electronics and Information Engineering of BUAA, P.R. China)

[Synthetic SAR Image Generation using Sensor, Terrain and Target Models](#)

Anders Kusk, Adili Abulaitijiang and Jørgen Dall (Technical University of Denmark, Denmark)

[Position-Aware Non-negative Matrix Factorization for Satellite Image Representation](#)

Mohammadreza Babaei (Institute for Human-Machine Communication, Germany); Gerhard Rigoll (Technische Universität München, Germany); Mihai Datcu (German Aerospace Center, Germany)

[Using Open-Source Software To Generate Interferometric COSMO-SkyMed Spotlight Dem](#)

Rino Lorusso and Nunzia Lombardi (Italian Space Agency & University of Basilicata, Italy); Giovanni Milillo (Centro di Geodesia Spaziale - Matera, Italy)

[Range Focusing in Volumetric SAR: a Phase Recovery Approach](#)

Mehrdad Yaghoobi (University of Edinburgh, United Kingdom); Shaun Kelly (Blackmagic Design, Australia); Mike Davies (University of Edinburgh, United Kingdom)

[Ground Moving Targets Refocusing Algorithm for Spotlight SAR Data](#)

Ibrahim Papila, Selçuk Paker, Mesut Kartal and Sedef Kent (Istanbul Technical University, Turkey)

D Posters

Chairs: Christoph Heer (Airbus DS GmbH, Germany), Martin Stangl (Airbus Defence and Space, Germany)

[Investigation on classification of compact PolSAR Data](#)

Lulu Tan (No. 38 Research Institute, Chinese Electronics Technology Group Corporation, P.R. China); Lei Sheng (East China Research Institute of Electronic Engineering, P.R. China)

[A Novel Deorientation Method for PolSAR Data Processing](#)

Feiya Zhu (National Space Science Center, Chinese Academy of Sciences); Yunhua Zhang (Center for Space Science and Applied Research, Chinese Academy of Sciences, P.R. China); Dong Li (National Space Science Center, Chinese Academy of Sciences, P.R. China)

[Synthetic Aperture Radar \(SAR\) Imaging of Complex Scenes Considering Near Field Scattering Characteristics](#)

Osman Karabayir and Sedef Kent (Istanbul Technical University, Turkey); Ahmet F Coskun (The Scientific and Technological Research Council of Turkey, Turkey)

[Object-oriented Classification of Polarimetric SAR Imagery based on Kernel Fisher Discriminant Dimensionality Reduction](#)

Han Cao, Hong Zhang, Chao Wang, Meng Liu and Fan Wu (Institute of Remote Sensing and Digital Earth, CAS, P.R. China)

[A New Operational Approach for Image Registration with High-Resolution SAR Data](#)

Xiaoying Jin (Harris Corporation, USA); Thomas Bahr (Harris Corporation, Germany)

[Winter vs Summer Polarimetric Classification of Siberian Forests in X- and L-band](#)

Ludmila Zakharova (Institute of Radioengineering and Electronics RAS, Russia); Alexander I Zakharov (Institute of radioengineering and electronics, Russia)

[A Benchmark for Despeckling Filters](#)

Luis Gomez (University of Las Palmas G. C., Spain); Luis Alvarez (Universidad de Las Palmas de Gran Canaria & Campus de Tafira, Spain); Rodrigo Pinheiro (Universidade Federal de Alagoas, Spain); Alejandro C Frery (Universidade Federal de Alagoas, Brazil)

[Some Practical Aspects of Using SAR Image Histogram Statistics](#)

Mikhail Dostovalov (Scientific Research Institute of Precise Instruments, Russia); Roman Ermakov (Research Institute of Precise Instruments, Russia); Thomas Moussiniants (Scientific Research Institute of Precise Instruments, Russia)

[Training Convolutional Neural Networks for Translational Invariance on SAR ATR](#)

David Malmgren-Hansen (Technical University of Denmark & Terma A/S, Denmark); Rasmus Engholm and Morten Pedersen (Terma A/S, Denmark)

[Detection and Mitigation of Strong Azimuth Ambiguities in High Resolution SAR Images](#)

Rolf Scheiber and Marc Jäger (German Aerospace Center (DLR), Germany)

[High Resolution Range Profile Generation via Sparse Linear Prediction](#)

Bahar Ozen, Işın Erer and Sedef Kent (Istanbul Technical University, Turkey)

[Moving Target Indication for Multichannel FMCW SAR via Iterative Adaptive Approach](#)

Shengqiang Lou, Pu Cheng, Zhan Wang, Jianwei Wan and Ke Xu (National University of Defense Technology, P.R. China)

[Heterogeneous Images' Co-registration of Oil Tanks Based on Double-reflection Arcs in SAR Image](#)

Sun Bing (School of Electronics and Information Engineering, Beihang University, P.R. China); XinLiang Zhang (BeiHang University, P.R. China)

E Posters

Chairs: Christoph Heer (Airbus DS GmbH, Germany), Martin Stangl (Airbus Defence and Space, Germany)

[A Multi-Temporal Supervised Binary-Tree Classification Scheme for Polarimetric SAR with Maximum Difference of Polarization Signature](#)

Xiaodong Huang and Jinfei Wang (University of Western Ontario, Canada); Jiali Shang (Agriculture and Agri-Food Canada, Canada)

[Damage assessment from VHR, spaceborne SAR imagery: including pre-event urban information](#)

Daniele De Vecchi and Fabio Dell'Acqua (University of Pavia, Italy)

[Multi-sensor wetland mapping over the Peace Athabasca Delta](#)

Andreas Schmitt (German Aerospace Center, Germany); Anna Wendleder (German Aerospace Center (DLR), Germany); Kevin Murnaghan and Brian Brisco (Natural Resources Canada, Canada); Valentin Poncos (Kepler Space Inc.)

[Detecting Supraglacial Meltwater Drainage on the Devon Ice Cap using Kennaugh Decomposition of TerraSAR-X imagery](#)

Luísa Fernandes (University of Alberta, Canada); Andreas Schmitt (German Aerospace Center, Germany); Anna Wendleder (German Aerospace Center (DLR), Germany); Achim Roth (DLR, Germany); Martin Sharp (University of Alberta, Canada)

[Ship-Iceberg Discrimination with Convolutional Neural Networks in High Resolution SAR Images](#)

Carlos Bentes, Anja Frost, Domenico Velotto and Björn Tings (German Aerospace Center (DLR), Germany)

[Micro-doppler Analysis on Short Waves modulated by the One-dimensional Variant Current](#)

Lei Liu (China Academy of Space Technology, P.R. China); Xiaoqing Wang and Jinsong Chong (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Anwen Zhu (China Academy of Space Technology, P.R. China)

[A Feature-based Ship Detection Method for Compact Polarization SAR Image](#)

Lu Xu, Hong Zhang and Chao Wang (Institute of Remote Sensing and Digital Earth, CAS, P.R. China); Bo Zhang (Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences, P.R. China)

[Wind field retrieval on various spatial scales based on Sentinel-1A SAR Images](#)

Shangshang Bi and Xupu Geng (Xiamen University, P.R. China); Xiaohai Yan (University of Delaware, USA)

[A Contrast Enhancement Method using Complex Weight Vector for Polarimetric SAR based Ship Detection](#)

Ziwei Wang, Chao Wang and Hong Zhang (Institute of Remote Sensing and Digital Earth, CAS, P.R. China); Bo Zhang (Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences, P.R. China); Fan Wu (Institute of Remote Sensing and Digital Earth, CAS, P.R. China)

[Coal mine subsidence monitoring in Huainan city using a combination of time-series InSAR and offset-tracking methods](#)

Zhengjia Zhang (Institute of Remote Sensing and Digital Earth, P.R. China); Chao Wang (Institute of Remote Sensing and Digital Earth, CAS, P.R. China); Yixian Tang (Institute of Remote Sensing and Digital Earth, P.R. China); Hong Zhang (Institute of Remote Sensing and Digital Earth, CAS, P.R. China)

[Estimation of Internal Wave from Sentinel-1A Images by the Combination of 2-D and 1-D Empirical Mode Decomposition](#)

Xupu Geng, Tian Li and Xiangbai Wu (Xiamen University, P.R. China); Xiaohai Yan (University of Delaware, USA)

[The Italian COSMO-SkyMed constellation as a strategic asset to the CLOSEYE project](#)

Patrizia Sacco (Italian Space Agency, Italy); Dino Quattrociochi and Maria Corvino (E-GEOS, Italy); Alessandro Coletta (ASI, Italy); Giorgia Parca and Giuseppe Codispoti (Italian Space Agency, Italy); Carolina Matarazzi (ASI, Italy)

[Investigation of Snow Avalanches with Ground Based Ku-band Radar](#)

Célia Lucas (ETH Zurich, Switzerland); Irena Hajsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Armando Marino (ETH University Zürich, Switzerland); Yves Bühler (WSL Institut for Snow and Avalanche Research SLF)

[Improved SAR Vessel Detection Based on Discrete Texture](#)

Christoph H. Gierull and Ishuwa C. Sikaneta (DRDC Ottawa, Canada)

[Ionospheric Corrections on L-band SAR Offset Tracking Image for Precise Observation of Glacier Velocity](#)

Sung-Ho Chae and Hyung-Sup Jung (University of Seoul & LARS, Korea)

[Vertical SAR imaging for high altitude altimetric navigation resetting](#)

Hubert M.J. Cantalloube (ONERA, France)

(D4): TerraSAR-X/TanDEM-X - Mission & DEM Generation Status (invited)

Chairs: Manfred Zink (DLR, Germany), Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

[TerraSAR-X and TanDEM-X Mission Status](#)

Stefan Buckreuss and Manfred Zink (DLR, Germany)

[The Future of TanDEM-X: Final DEM and Beyond](#)

Daniela Borla Tridon (DLR, Germany); Markus Bachmann (German Aerospace Center (DLR), Germany); Michele Martone (German Aerospace Center, Germany); Daniel Schulze (German Aerospace Center (DLR) & Microwaves and Radar Institute, Germany); Manfred Zink (DLR, Germany)

[Height Accuracy and Data Coverage Status of the Global TanDEM-X DEM](#)

Christopher Wecklich, Carolina González, Benjamin Bräutigam and Paola Rizzoli (German Aerospace Center (DLR), Germany)

[Update of the Interferometric Processing Algorithms for the TanDEM-X High Resolution DEMs](#)

Marie Lachaise (DLR - German Aerospace Center, Germany); Thomas Fritz (German Aerospace Center (DLR), Germany)

[Concept and First Example of TanDEM-X High-resolution DEM](#)

Birgit Wessel (German Aerospace Center (DLR) & DFD-LAX, Germany); Markus Breunig (German Aerospace Center (DLR), Germany); Markus Bachmann and Martin Huber (German Aerospace Center (DLR), Germany); Michele Martone (German Aerospace Center, Germany); Marie Lachaise (DLR - German Aerospace Center, Germany); Thomas Fritz (German Aerospace Center (DLR), Germany); Manfred Zink (DLR, Germany)

(E4): Polarimetry (II)

Chairs: Matteo Pardini (German Aerospace Center (DLR), Germany), Andrea Loinger (Airbus Defence and Space, Germany)

[Fusion of LIDAR and POLINSAR images for forest vertical structure retrieval](#)

Guillaume Brigot and Elise Colin Koeniguer (ONERA, France); Marc Simard (Jet Propulsion Laboratory, USA); Xavier Dupuis (ONERA, France)

[Comparing performances of RVoG and OVoG crop height inversion schemes from multi-frequency SAR data](#)

Manuele Pichierri (ETH Zurich, Switzerland); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

[Numerical Modeling of Subsurface Layer Resonance-Based Interferometric SAR \(InSAR\) Correlation Fluctuations](#)

Kamalesh Sainath (Ohio State University & ElectroScience Laboratory, USA); Scott Hensley (Jet Propulsion Laboratory, USA)

[Analysis of Orientation Effects of Crop Vegetation Volumes by Means of SAR Tomography at Different Frequencies](#)

Hannah Joerg (German Aerospace Center & ETH Zürich, Germany); Matteo Pardini (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

[A Visualization Tool for Polarimetric SAR Data Investigation](#)

Si-Wei Chen, Yongzhen Li and Xuesong Wang (National University of Defense Technology, P.R. China)

(F4): Feature Extraction (Oil, Ice, Groundwater)

Chairs: Tom G Farr (Jet Propulsion Laboratory, USA), Mihai Datcu (German Aerospace Center, Germany)

[Investigations into the X and C band Quad-Pol features for sea ice classification](#)

Rudolf Ressel (German Aerospace Center DLR, Germany); Suman Singha and Susanne Lehner (German Aerospace Center (DLR), Germany)

[InSAR measurements of subsidence in the Central Valley, California from 2007 - present](#)

Tom G Farr (Jet Propulsion Laboratory, USA)

[Investigations into the X and C band Quad-Pol features for oil slick characterization](#)

Suman Singha (German Aerospace Center (DLR), Germany); Rudolf Ressel (German Aerospace Center DLR, Germany); Susanne Lehner (German Aerospace Center (DLR), Germany)

[On the exploitation of polarimetric ratio for oil spill detection](#)

Mariantonietta Zonno and Paco López-Dekker (German Aerospace Center (DLR), Germany); Richard E. Danielson (Nansen Environmental and Remote Sensing Center (NERSC), Norway)

[Towards the Categorization of Changes at Stuttgart Airport](#)

Markus Boldt and Robin Falge (Fraunhofer IOSB, Germany); Antje Thiele (Fraunhofer IOSB & Karlsruhe Institute of Technology (KIT), Germany); Karsten Schulz (Fraunhofer IOSB, Germany); Stefan Hinz (Karlsruhe Institute of Technology, Germany)

(G1.4): ALOS-2 (invited)

Chairs: Masato Ohki (Japan Aerospace Exploration Agency, Japan), Ryoichi Sato (Niigata University, Japan)

[Investigation on polarization orientation angle shift for accurate urban area observation using ALOS-2/PALSAR-2 data](#)

Ryoichi Sato, Yuhei Ikarashi, Motoki Masaka, Yoshio Yamaguchi and Hiroyoshi Yamada (Niigata University, Japan)

[ALOS-2 Quad. Pol. Images and ALOS Ones](#)

Yoshio Yamaguchi, Ryoichi Sato and Hiroyoshi Yamada (Niigata University, Japan)

[Flooded Area Extraction from Time-Series ALOS-2 Data](#)

Motofumi Arie (Mitsubishi Electric Co., Ltd, Japan); Takeshi Nishimura (Mitsubishi Space Software Co., Ltd., Japan); Yu Okada (Mitsubishi Electric Corporation, Japan)

[Disaster Affected Area Detection and Display Application for Non-SAR Specialists](#)

Ryo Natsuaki (Japan Aerospace Exploration Agency, Japan); Manabu Watanabe (Tokyo Denki University, Japan); Masato Ohki and Shinichi Suzuki (Japan Aerospace Exploration Agency, Japan)

(G2.4): Advanced SAR Modes and Techniques (II)

Chairs: Sebastian Riegger (Airbus DS GmbH, Germany), Alberto Moreira (German Aerospace Center - DLR, Germany)

[Simulated Performances of ScanSAR Ground Moving Target Indication Based on RADARSAT-2's MODEX Modes](#)

Louis-Philippe Rousseau (Université Laval, Canada); Jean-Yves Chouinard (Laval University, Canada); Christoph H. Gierull (DRDC Ottawa, Canada)

[Wrapped Staring Spotlight SAR for TerraSAR-X](#)

Josef Hermann Martin Mittermayer, Thomas Kraus, Paco López-Dekker and Pau Prats (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany); Alberto Moreira (German Aerospace Center - DLR, Germany)

[Performance Evaluation of the TanDEM-X Quad Polarization Acquisitions in the Science Phase](#)

Jose-Luis Bueso-Bello (German Aerospace Center, Germany); Pau Prats (German Aerospace Center (DLR), Germany); Michele Martone (German Aerospace Center, Germany); Paola Rizzoli and Benjamin Bräutigam (German Aerospace Center (DLR), Germany)

[Flight Path Reconstruction from SAR Images and Spotlight SAR Data](#)

Aron Sommer (Leibniz Universität Hannover, Germany); Joern Ostermann (Leibniz Universität Hannover, Germany)

[Multistatic SAR Imaging: First Results of a Four Phase Center Experiment with TerraSAR-X and TanDEM-X](#)

Thomas Kraus, Benjamin Bräutigam and Markus Bachmann (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

(D5): TanDEM-X - Science Activities (invited)

Chairs: Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany), Manfred Zink (DLR, Germany)

TanDEM-X: Science Activities

Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Thomas Busche (German Aerospace Center (DLR) e.V., Germany)

[Agricultural monitoring using pursuit monostatic TanDEM-X coherence in the Western Cape, South Africa](#)

Jaco Kemp and James Burns (Stellenbosch University, South Africa)

[Mapping Topography and Forest Parameters in a Boreal Forest with Dual-Baseline TanDEM-X Data and the Two-Level Model](#)

Maciej J. Soja and Lars Ulander (Chalmers University of Technology, Sweden)

[Exploiting TanDEM-X Pol-InSAR Data for Forest Structure Observation and Potential Synergies with NASA's Global Ecosystem Dynamics Investigation Lidar \(GEDI\) Mission](#)

Matteo Pardini (German Aerospace Center (DLR), Germany); Wenlu Qi and Ralph Dubayah (University of Maryland, USA); Konstantinos P. Papathanassiou (German Aerospace Center, Germany)

[Sea Ice Type Classification in the Baltic Sea from TanDEM-X Imagery](#)

Kaari Laanemäe (Marine Systems Institute at Tallinn University of Technology, Estonia); Rivo Uiboupin (Tallinn University of Technology, Estonia); Sander Rikka (Marine Systems Institute at Tallinn University of Technology, Estonia)

(E5): Tomography

Chairs: Friedhelm Rostan (Airbus DS GmbH, Germany), Andreas Keller (Airbus DS GmbH, Germany)

[Understanding Spaceborne Missions for TomoSAR Imaging with Multi-Angular Acquisitions](#)

Toni M. del Hoyo and Octavio Ponce (German Aerospace Center (DLR), Germany)

[Novel Approach and Analysis to Determine Absolute Heights Using a Single Long Aperture SAR Acquisition](#)

Sergi Duque, Alessandro Parizzi, Francesco De Zan and Fernando Rodriguez Gonzalez (German Aerospace Center (DLR), Germany)

Diff-Tomo Stratified Analyses of Dynamic Forest Volumes

Fabrizio Lombardini (University of Pisa, Italy); Federico Viviani (CNIT-RaSS Nat. Lab & University of Pisa, Italy)

[SAR tomography as an add-on to PSI for improved deformation sampling in urban areas: A quality assessment](#)

Muhammad Adnan Siddique (ETH Zürich, Switzerland); Urs Wegmüller (GAMMA Remote Sensing AG, Switzerland); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Othmar Frey (ETH Zurich & Gamma Remote Sensing, Switzerland)

[MCA-SAR-Tomography](#)

Filippo Biondi (University of L'Aquila & Italian Ministry of Defence, Italy)

(F5): Classification and Feature Extraction

Chairs: Torbjørn Eltoft (University of Tromsø, Norway), Paola Rizzoli (German Aerospace Center (DLR), Germany)

[Non-Uniform Markov Random Fields for Classification of SAR Images](#)

Sylvain Lobry (Télécom ParisTech, France); Florence Tupin (Institut Telecom, France); Roger Fjørtoft (CNES, France)

[Forest/Non-Forest Classification from TanDEM-X Interferometric data by means of Multiple c-Means Fuzzy Clustering](#)

Michele Martone (German Aerospace Center, Germany); Paola Rizzoli and Benjamin Bräutigam (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

[Semi-Automated Semantic Annotation of Big Archives of High Resolution SAR Images](#)

Corneliu Octavian Dumitru and Gottfried Schwarz (German Aerospace Center (DLR), Germany); Shiyong Cui (German Aerospace Center, Germany); Daniela Espinoza-Molina (German Aerospace Center - DLR, Germany); Mihai Datcu (German Aerospace Center, Germany)

[Registration of very high resolution SAR and optical images](#)

Carlos Villamil-Lopez (German Aerospace Center (DLR), Germany); Lars Petersen (Airbus Defence and Space, Germany); Rainer Speck and Dirk Frommholz (DLR, Germany)

[Scattering Preference Pyramid Classification of PolSAR Data Based on Canonical Huynen Dichotomy](#)

Dong Li (National Space Science Center, Chinese Academy of Sciences, P.R. China); Yunhua Zhang (Center for Space Science and Applied Research, Chinese Academy of Sciences, P.R. China)

(G1.5): Innovative and Next Generation SAR Missions (invited)

Chairs: Michael Ludwig (ESA/ESTEC, The Netherlands), Andrea Monti-Guarnieri (Politecnico di Milano, Italy)

[Ka-band Imaging InSAR: Status, Technological Elements and Outlook](#)

Michael Ludwig (ESA/ESTEC, The Netherlands); Jean-Christophe Angevain (ESA, The Netherlands); Malcolm Davidson (ESA/ESTEC, The Netherlands); Bjorn Rommen (Estec & European Space Agency, The Netherlands); Daniele Petrolati (ESA ESTEC, European Space Agency, The Netherlands)

[Application-level performance and trade-offs for the post-Sentinel HRWS SAR Systems](#)

Paco López-Dekker, Maria J. Sanjuan-Ferrer, Marianonietta Zonno, Marwan Younis and Stefan V. Baumgartner (German Aerospace Center (DLR), Germany); Antonio Gabriele (European Space Agency (ESA), The Netherlands)

[Biomass P-band SAR](#)

Florence Hélière (European Space Agency ESTEC, The Netherlands); Adriano Carbone (Rhea System B. V. & ESA/ESTEC, The Netherlands); Nelson Fonseca (European Space Agency, The Netherlands); Natanael Ayllon (ESA/ESTEC, The Netherlands); Andrew Barnes (European Space Agency, United Kingdom); Michael Fehringer (ESA/ESTEC, The Netherlands)

[Geosynchronous and geostationary SAR: face to face comparison](#)

Andrea Monti-Guarnieri (Politecnico di Milano, Italy); Cheng Hu (Beijing Institute of Technology, P.R. China)

[SAR Instrument Pre-development Activities for SAOCOM-CS](#)

Nicolas Gebert (ESA); Bernardo Carnicero Dominguez and Marina Diaz-Martin (ESA, The Netherlands); Francesca Temussi, Elia Di Salvo and Paolo Valerio Giove (Thales Alenia Space Italia S.p.A., Italy); Mike Gibbons (Airbus Defence and Space Ltd., United Kingdom); Percy Phelps (Airbus Defence and Space Ltd, United Kingdom); Les Griffiths (Astrium Ltd, United Kingdom)

(G2.5): Ground Based Radar and Demonstrations (I)

Chairs: Othmar Frey (ETH Zurich & Gamma Remote Sensing, Switzerland), Keith Morrison (Cranfield University, United Kingdom)

[Material Identification Using Extreme Wide-Band SAR Imaging 10-50GHz](#)

Keith Morrison (Cranfield University, United Kingdom); Daniel Andre (Cranfield University & Defence Academy of the United Kingdom, United Kingdom); David Blacknell (DSTL, United Kingdom); Darren Muff, Matthew Nottingham and Claire Stevenson (Dstl, United Kingdom)

[A time series of SAR tomographic profiles of a snowpack](#)

Othmar Frey (ETH Zurich & Gamma Remote Sensing, Switzerland); Charles Werner (GAMMA Remote Sensing Research and Consulting AG, Switzerland); Rafael Caduff and Andreas Wiesmann (Gamma Remote Sensing AG, Switzerland)

[Detection of UAVs using the MIMO radar MIRA-CLE Ka](#)

Jens Klare, Oliver Biallawons and Delphine Cerutti-Maori (Fraunhofer FHR, Germany)

System Characterization and Polarimetric Calibration of the Ku-Band Advanced Polarimetric Interferometer

Simone Baffelli (ETH Zurich, Switzerland); Othmar Frey (ETH Zurich & Gamma Remote Sensing, Switzerland); Charles Werner (GAMMA Remote Sensing Research and Consulting AG, Switzerland); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

High Resolution Bistatic Experiments using TerraSAR-X Staring Spotlight Mode and the Very High Resolution SAR Mode of the Fraunhofer FHR PAMIR System

Florian Behner (University of Siegen, Germany); Simon Reuter and Holger Nies (University of Siegen & Center for Sensorsystems (ZESS), Germany); Otmar Loffeld (Center for Sensorsystems (ZESS), University of Siegen, Germany)

(D6): Comparison between SAR, SAS and Sonography I (invited)

Chairs: Matthias Weiß (Fraunhofer FHR, Germany), Torstein Olsmo Sæbø (Norwegian Defence Research Establishment (FFI), Norway)

Multipath and noise suppression by coherently processing images of an interferometric SAS system

Johannes Groen (Atlas Elektronik GmbH, Germany); Stefan Leier (Atlas Elektronik GmbH); Holger Schmaljohann (WTD 71, Germany); Wolfgang Jans (WTD 71 - FWG, Germany)

Concurrent Operation of Multiple SAS Systems

James Prater (Naval Surface Warfare Center Panama City Division, USA)

Near-Field Stripmap SAS Imaging with Equal Resolution

Ziliang Qiao (Technische Universität Darmstadt & IWSS in Hochschule Bremen, Germany); Dieter Kraus (Hochschule Bremen, Germany)

Detection of Internal Waves Using Multi-Aspect Processing in Synthetic Aperture Sonar

Roy E Hansen (Norwegian Defence Research Establishment (FFI) & Centre for Imaging, University of Oslo, Norway); Anthony Lyons (University of New Hampshire, USA); Dan Cook (Georgia Tech Research Institute); Torstein Olsmo Sæbø (Norwegian Defence Research Establishment (FFI), Norway)

Interferometry using Phase Slope Estimation

Stig A V Synnes (Norwegian Defence Research Establishment (FFI) & University of Oslo, Norway); Torstein Olsmo Sæbø (Norwegian Defence Research Establishment (FFI), Norway); Roy E Hansen (Norwegian Defence Research Establishment (FFI) & Centre for Imaging, University of Oslo, Norway)

(E6): Topography and Tomography

Chairs: Scott Hensley (Jet Propulsion Laboratory, USA), Alessandra Budillon (University of Naples Parthenope, Italy)

Systematic Processing of High Resolution Topography of Venus from Magellan Radar Stereo Data and Science Applications

Scott Hensley (Jet Propulsion Laboratory, USA); Karl Mitchell and Daniel Nunes (JPL, USA); Scott Shaffer (Jet Propulsion Laboratory, USA); Robert Deen (Jet Propulsion Laboratory & California Institute of Technology, USA); Carolyn Parcheta and Maria Rusert (JPL, USA)

A Multi-Frequency SAR Tomographic Characterization of Sub-Surface Ice Volumes

Matteo Pardini, Giuseppe Parrella and Georg Fischer (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany)

A Nullspace Based LI Minimizing Kalman Filter Approach to Sparse CS Reconstruction

Otmar Loffeld (Center for Sensorsystems (ZESS), University of Siegen, Germany); Alexander Seel (University of Siegen, Germany); Miguel Heredia Conde (Center for Sensorsystems (ZESS), University of Siegen, Germany); Ling Wang (Nanjing University of Aeronautics and Astronautics, P.R. China)

4-D SAR Support Based Tomographic Imaging

Alessandra Budillon (University of Naples Parthenope, Italy); Angel Caroline Johnsy (University of Naples Parthenope, Italy); Gilda Schirinzi (Università di Napoli Parthenope, Italy)

[Resolution Enhanced SAR Tomography: From Match Filtering to Compressed Sensing Beamforming Techniques](#)

Gustavo Martín del Campo (CINVESTAV del IPN, Mexico); Andreas Reigber (German Aerospace Center (DLR), Germany); Yuriy V. Shkvarko (Cinvestav Jalisco, Mexico)

(F6): Snow, Ice and Glacier

Chairs: Marc Jäger (German Aerospace Center (DLR), Germany), Rainer Wilhelm (Airbus DS GmbH, Germany)

[First Analysis of Sparse Signal Reconstruction for Radar Imaging of Ice Sheets](#)

Anton Heister (Microwaves and Radar Institute, German Aerospace Center, Germany); Rolf Scheiber (German Aerospace Center (DLR), Germany)

[Deriving Greenland Ice Sheet Properties from TanDEM-X Mission Data](#)

Paola Rizzoli (German Aerospace Center (DLR), Germany); Michele Martone (German Aerospace Center, Germany); Benjamin Bräutigam (German Aerospace Center (DLR), Germany); Helmut Rott (ENVEO IT GmbH & University of Innsbruck, Meteorology and Geophysics, Austria); Alberto Moreira (German Aerospace Center - DLR, Germany)

[Polarimetric SAR Change Detection in Multiple Frequency Bands for Environmental Monitoring and Surveillance in Arctic Regions](#)

Marc Jäger (German Aerospace Center (DLR), Germany); Ernst Krogager (Danish Defence Acquisition and Logistics Organization (DALO) & LU-VV06, Denmark); Andreas Reigber (German Aerospace Center (DLR), Germany)

[Monitoring the subsurface of an Alpine glacier using polarimetric SAR observations at L-band](#)

Giuseppe Parrella (German Aerospace Center (DLR), Germany); Daniel Farinotti (Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), Switzerland); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany)

[Interpretation of Pol-InSAR Signatures from Glaciers and Ice Sheets at Different Frequencies](#)

Georg Fischer and Giuseppe Parrella (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

(G1.6): Future SAR Technology (DBF, HRWS, MIMO) (invited)

Chairs: Bernhard Grafmueller (Airbus DS GmbH, Germany), Marwan Younis (German Aerospace Center (DLR), Germany)

[Techniques and Modes for Multi-Channel SAR Instruments](#)

Marwan Younis (German Aerospace Center (DLR), Germany); Felipe Queiroz de Almeida (German Aerospace Center (DLR) & Microwaves and Radar Institute, Germany); Paco López-Dekker (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

[Recent Progress of Airborne X-band SAR with Two-Dimensional Digital Beamforming](#)

Robert Wang (Institute of Electronics, Chinese Academy of Sciences & University of Siegen, P.R. China); Yunkai Deng and Pei Wang (Institute of Electronics, Chinese Academy of Sciences, P.R. China)

[Wide Swath SAR observation and its system parameters for future L-band mission](#)

Yu Okada, Yuya Yokota, Kei Suwa and Akira Karasawa (Mitsubishi Electric Corporation, Japan); Motofumi Arii (Mitsubishi Electric Co., Ltd, Japan)

[DBF Technology Development for Next Generation of ESA C-Band SAR mission](#)

Grzegorz Adamiuk and Christoph Heer (Airbus DS GmbH, Germany); Michael Ludwig (ESA/ESTEC, The Netherlands)

[HRWS Technology for SAR Missions based on Reflector or Phased Array Antennas](#)

Thomas Fuegen, Bernhard Grafmueller, Grzegorz Adamiuk, Christian Fischer and Christoph Heer (Airbus DS GmbH, Germany)

(G2.6): Ground Based Radar and Demonstrations (II)

Chairs: Hubert M.J. Cantalloube (ONERA, France), Markus Peichl (German Aerospace Center (DLR), Germany)

Rail-borne SAR interferometry for Disaster Prevention

Hubert M.J. Cantalloube, Jean-Francois Nouvel, Anil Cheraly, Serge Roques and Helene Oriot (ONERA, France)

Challenges for operational use of ground-based high-resolution SAR for landmines and UXO detection

Eric Schreiber, Markus Peichl, Andreas Heinzl, Stephan Dill and Florian Bischeltsrieder (German Aerospace Center (DLR), Germany); Simon Anger (German Aerospace Center (DLR) & Microwaves and Radar Institute, Germany); Timo Kempf (German Aerospace Center, Germany); Matthias Jirousek (DLR German Aerospace Center, Germany)

Experimental violation of the Start-Stop-Approximation using a Holistic Rail-based UWB FMCW-SAR System

Matthis Wielage (Leibniz Universität Hannover, Germany); Fabian Cholewa, Peter Pirsch and Holger Blume (Leibniz Universität Hannover)

Focusing Methods for Ground Penetrating MIMO SAR Imaging within Half-Spaces of Different Permittivity

Andreas Heinzl, Markus Peichl, Eric Schreiber, Florian Bischeltsrieder and Stephan Dill (German Aerospace Center (DLR), Germany); Simon Anger (German Aerospace Center (DLR) & Microwaves and Radar Institute, Germany); Timo Kempf (German Aerospace Center, Germany); Matthias Jirousek (DLR German Aerospace Center, Germany)

System Concept for the Imaging MIMO Radar of the Radar Warning and Information System RAWIS

Reinhard Panhuber, Robert Klenke, Oliver Biallawons and Jens Klare (Fraunhofer FHR, Germany)

(D7): Comparison between SAR, SAS and Sonography II (invited)

Chairs: Torstein Olsmo Sæbø (Norwegian Defence Research Establishment (FFI), Norway), Matthias Weiß (Fraunhofer FHR, Germany)

Micro-steered multilooking in synthetic aperture sonar imaging

Andreas Austeng (University of Oslo, Norway); Roy E Hansen (Norwegian Defence Research Establishment (FFI) & Centre for Imaging, University of Oslo, Norway); Are C Jensen (University of Oslo, Norway)

Multiple scattering, layer penetration, and elastic contributions to SAS images using fast reversible processing methods

Philip Marston (Washington State University, USA); Daniel Plotnick (University of Washington & Applied Physics Lab, USA)

TomoSAS images of acoustically penetrable objects

Timothy Marston (University of Washington & The Applied Physics Laboratory, USA); Jermaine Kennedy (NSWC-PCD, USA)

TomoSAS in bathymetrically complex environments

Timothy Marston (University of Washington & The Applied Physics Laboratory, USA); Jermaine Kennedy (NSWC-PCD, USA)

(E7): Interferometry (I)

Chairs: Friedhelm Rostan (Airbus DS GmbH, Germany), Marwan Younis (German Aerospace Center (DLR), Germany)

Precise geolocation of water bodies in SWOT HR InSAR data

Damien Desroches, Roger Fjørtoft and Jean-Marc Gaudin (CNES, France); Christian Ruiz (CapGemini, France); Denis Blumstein (LEGOS, France)

A Study on Spatio-Temporal Filtering in the Spirit of SqueeSAR

Markus Even (Fraunhofer Research Institute for Optronics and Pattern Recognition, Germany)

[Sentinel-1 mission: results of the InSARap project](#)

Matteo Nannini, Pau Prats, Rolf Scheiber and Nestor Yague-Martinez (German Aerospace Center (DLR), Germany); Federico Minati, Francesco Vecchioli and Mario Costantini (E-GEOS - an Italian Space Agency and Telespazio Company, Italy); Sven Borgstrom, Prospero De Martino and Valeria Siniscalchi (National Institute of Geophysics and Volcanology (INGV), Vesuvius Observatory, Italy); Thomas Walter (German Research Centre for Geosciences (GFZ), Germany); Michael Fomelis (RSAC c/o ESA-ESRIN, Italy); Yves-Louis Desnos (ESA/ESRIN, Italy)

[Practical Demonstration of Robust InSAR Optimization for Multipass InSAR](#)

Yuanyuan Wang (Technical University of Munich, Germany); Xiao Xiang Zhu (German Aerospace Center (DLR), Remote Sensing Technology & Technical University of Munich (TUM), Signal Processing in Earth Observation, Germany)

[Coregistration of Interferometric Stacks of Sentinel-1A TOPS Data](#)

Nestor Yague-Martinez, Pau Prats and Francesco De Zan (German Aerospace Center (DLR), Germany)

(F7): SAR Processing and Correction

Chairs: Christoph H. Schaefer (Airbus Defence & Space, Germany), Helko Breit (DLR, Germany)

[Finding vehicle boundaries in SAR images](#)

Christopher Paul Moate and Thomas Leonard (QinetiQ, United Kingdom)

[Effects of Radar Position Errors on Near Range Ultrawideband 3D-SAR Imaging](#)

Siyang Wang, Volker Nolden, Gunnar Briese, Stefan Lang and Nils Pohl (Fraunhofer FHR, Germany)

[SAR image formation by backprojection of range velocity segments](#)

Patrick Berens (Fraunhofer FHR, Germany)

[Numerical SAR Processing Scheme for Generic Very-High Resolution Spotlight Acquisitions](#)

Alejandro Linde Cerezo (Universidad de Alcala, Spain); Marc Rodriguez-Cassola (DLR, Germany); Jose Luis Alvarez-Perez (University of Alcala, Spain); Pau Prats (German Aerospace Center (DLR), Germany); Alberto Moreira (German Aerospace Center - DLR, Germany)

[A Robust Autofocus Scheme for Airborne SAR Data Processing](#)

Ning Li (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Robert Wang (Institute of Electronics, Chinese Academy of Sciences & University of Siegen, P.R. China); Min Zhang, Yunkai Deng and Weidong Yu (Institute of Electronics, Chinese Academy of Sciences, P.R. China)

(G1.7): COSMO-Sky-Med (invited)

Chairs: Andrea Torre (Thales AleniaSpace, Italy), Diego Calabrese (Thales Alenia Space Italia, Italy)

[CSK mission status and experimentation results](#)

Valerio Grimani and Barbara Bussi (Thales Alenia Space Italia, Italy); Pasquale Salemme (Thales Alenia Space Italy, Italy); Andrea Perrera (Thales Alenia Space Italia, Italy); Giuseppe Francesco De Luca (Italian Space Agency, Italy); Alessandro Coletta (ASI, Italy); Pasquale Pepe (Thales Alenia Space Italia, Italy); Paolo Inversi (Telespazio S. p. A, Italy); Pier Giorgio Esposito (Telespazio S. p. A., Italy); Axel Oddone (E-Geos S. p. A., Italy)

[CSG System Performance and Mission](#)

Flavia Carnevale (Thales Alenia Space Italy, Italy); Diego Calabrese (Thales Alenia Space Italia, Italy); Vanessa Mastroddi and Manuela Marabucci (Thales Alenia Space Italy, Italy); Giuseppe Francesco De Luca and Claudia Anita Maria Fiorentino (Italian Space Agency, Italy); Stefano Serva (Italian Ministry of Defence, Italy); Efer Miotti (Italian Defence, Italy)

[CSG SAR instrument design and performance](#)

Roberto Venturini (Thales Alenia Space Italia); Francesco Spadoni (Thales Alenia Space Italia, Italy); Chiara Germani (Thales Alenia Space Italia); Matteo Soccorsi, Claudio Scarchilli, Aldo Torrini, Pasquale Capece, Antonio Delfino and Francesco Barletta (Thales Alenia Space Italia, Italy); Francesco Caltagirone (ASI, Italy); Marco Nardini (SG/DNA-IV (MoD), Italy)

[CSG Ground Segment and ILS&OPS: evolution between two generations of systems](#)

Anna Croce and Oreste Trematerra (Thales Alenia Space Italia, Italy); Danilo Vicari (Thales Alenia Space Italy, Italy); Marco Cutigni and Mario Profili (Thales Alenia Space Italia, Italy); Giovanni Valentini (Agenzia Spaziale Italiana, Italy); Mauro Cardone (Italian Space Agency, Italy); Efer Miotti (Italian Defence, Italy)

[CSG image quality and calibration approach](#)

Pasquale Salemme (Thales Alenia Space Italy, Italy); Valerio Grimani (Thales Alenia Space Italia, Italy); Alessandro Cricenti (Thales Alenia Space Italy, Italy); Ignazio Rana, Stefano Federici and Davide Rizzato (Thales Alenia Space Italia, Italy); Manfredi Porfilio (Agenzia Spaziale Italiana, Italian Space Agency, ASI, Italy); Luca Fasano (Italian Space Agency, Italy); Stefano Serva (Italian Ministry of Defence (MoD- SGD IV), Italy)

(G2.7): SAR Missions and Technology

Chairs: Martin Stangl (Airbus Defence and Space, Germany), Martin Cohen (Airbus Defence & Space Ltd, United Kingdom)

[RADARSAT Constellation Mission Status Update](#)

Daniel De Lisle and Steve Iris (Canadian Space Agency, Canada)

[Technology Challenges and Opportunities for Next Generation AESA Based Airborne Surveillance Radar](#)

William Gautier and Wilhelm Gruener (Airbus DS and Border Security, Germany); Martin Kirscht (Airbus Defence and Space, Germany)

[NovaSAR-S SAR Payload](#)

Martin Cohen (Airbus Defence & Space Ltd, United Kingdom); David Hall (Airbus DS Ltd, United Kingdom); Pedro Lau Semedo (Airbus Defence & Space Ltd, United Kingdom)

[NIA SAR Central Electronics Product](#)

Martin Cohen, Andrew Larkins and Phil Watson (Airbus Defence & Space Ltd, United Kingdom)

[Russian Spaceborne Synthetic Aperture Radar " Strizh " for Light Satellites of " Condor-E " type](#)

Leon B. Neronskiy (JSC Radio Engineering Corporation Vega, Russia); Vladimir Verba (Joint-stock Company "Radio Engineering Corporation "VEGA", Russia); Vladimir Turuk (JSC Radio Engineering Corporation VEGA, Russia); Marina Golovanova (JSC Radio Engineering Corporation Vega, Russia); Evgeny Tolstov (JSC Aerokon, Russia); Sergey Zaitsev (JSC MIC NPO Mashinostroyeniya, Russia)

(D8): Advanced Processing Techniques (I)

Chairs: Christoph H. Schaefer (Airbus Defence & Space, Germany), Rainer Wilhelm (Airbus DS GmbH, Germany)

[Lq Regularization Method for Spaceborne SCANSAR and TOPS SAR Imaging](#)

Hui Bi (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Bingchen Zhang (Institute of Electronics, Chinese Academy of Science, P.R. China); Xiao Xiang Zhu (German Aerospace Center (DLR), Remote Sensing Technology & Technical University of Munich (TUM), Signal Processing in Earth Observation, Germany); Wen Hong (National Key Laboratory of Microwave imaging Technology & Institute of Electronics, Chinese Academy of Sciences, P.R. China)

[ISAR Imaging using A Greedy Kalman Filtering Method with Sparse Constraints](#)

Ling Wang (Nanjing University of Aeronautics and Astronautics, P.R. China); Otmar Loffeld (Center for Sensorsystems (ZESS), University of Siegen, Germany); Yulei Qian (Nanjing University of Aeronautics and Astronautics, P.R. China)

[3D Characterization of Underfoliage Targets Using L-band Tomographic SAR Data and A Wavelet-Based Approach](#)

Yue Huang (INRIA); Jacques Levy-vehel (INRIA, France); Laurent Ferro-Famil (University of Rennes 1, France); Andreas Reigber (German Aerospace Center (DLR), Germany); Stefano Fortunati (University of Pisa, Italy)

[A Novel Algorithm for HRWS SAR Imaging Based on Sparse Beamforming](#)

Taoli Yang (University of Electronic Science and Technology of China); Yong Wang (East Carolina University, USA)

[Compressive Sensing of SAR Signals via Fourier Coefficients](#)

Kfir Aberman (Technion - Israel Institute of Technology, Israel); Yonina C. Eldar (Technion-Israel Institute of Technology, Israel)

(E8): Interferometry (II)

Chairs: Richard Bamler (German Aerospace Center (DLR), Germany), Bernhard Grafmueller (Airbus DS GmbH, Germany)

[Improvements in the Processing of DInSAR data-stacks with CAESAR](#)

Gianfranco Fornaro (CNR-IREA, Italy); Antonio Pauciuolo (IREA, CNR, Italy); Diego Reale and Simona Verde (CNR-IREA, Italy)

[Demonstration of the Applicability of 2-Look Burst Modes in Non-Stationary Scenarios with TerraSAR-X](#)

Pau Prats, Nestor Yague-Martinez, Steffen Wollstadt, Thomas Kraus and Rolf Scheiber (German Aerospace Center (DLR), Germany)

[Micro-change detection on the ground surface by a high-precision repeat flight – A feasibility study toward a coherent change detection –](#)

Shoichiro Kojima (National Institute of Information and Communications Technology, Japan)

[Improving TamDEM-X DEMs accuracy using large-baseline data from the science phase](#)

Muriel Pinheiro (German Aerospace Center, Germany); Andreas Reigber (German Aerospace Center (DLR), Germany)

[Nonlocal InSAR Filtering for DEM generation and Addressing the Staircasing Effect](#)

Gerald Baier (German Aerospace Center & Technical University of Munich, Germany); Xiao Xiang Zhu (German Aerospace Center (DLR), Remote Sensing Technology & Technical University of Munich (TUM), Signal Processing in Earth Observation, Germany); Marie Lachaise (DLR - German Aerospace Center, Germany); Helko Breit (DLR, Germany); Richard Bamler (German Aerospace Center (DLR), Germany)

(F8): Land Use and Urban Areas

Chairs: Michael Riedmann (Airbus Defence and Space, Germany), Chao Wang (Institute of Remote Sensing and Digital Earth, CAS, P.R. China)

[Potential of Monitoring Road Structures Using High-Resolution Satellite Radar Interferometry](#)

Michael Riedmann (Airbus Defence and Space, Germany); Jan Anderssohn (Astrium Services, Germany); Maik Bindrich (Airbus Defence and Space, Germany)

[Resolution enhancement of polarimetric images using a high resolution mono-channel image](#)

Flora Weissgerber (Telecom ParisTech)

[Signature analysis of the Gateway Arch monument in St. Louis using TerraSAR-X staring spotlight mode data](#)

Harald Anglberger (German Aerospace Centre (DLR), Germany); Simon Hennig (Airbus Defence and Space, Germany)

[Towards a Reliable Detection of Debris in High Resolution SAR Images of Urban Areas](#)

Silvia Kuny (Fraunhofer IOSB, Germany); Horst Hammer (Fraunhofer, Germany); Karsten Schulz (Fraunhofer IOSB, Germany); Stefan Hinz (Karlsruhe Institute of Technology, Germany)

[Building Detection from Urban High-Resolution SAR Image Based on Facade Regularities](#)

Jinxing Chen (Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, P.R. China); Bo Zhang (Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences, P.R. China); Chao Wang, Hong Zhang and Fan Wu (Institute of Remote Sensing and Digital Earth, CAS, P.R. China)

(G1.8): Next Generation SAR Missions (I)

Chairs: Andrea Torre (Thales AleniaSpace, Italy), Samuel Doody (Airbus DS Ltd, United Kingdom)

CSG satellite design and performance

Patrizio Pavia and Gerardo Spera (Thales Alenia Space Italia, Italy); Roberto Venturini (Thales Alenia Space, Italy); Flaviano Bagaglini and Simone Lunardini (Thales Alenia Space Italia, Italy); Edmondo Scorzafava (Italian Space Agency (ASI), Italy); Efer Miotti (Italian Defence, Italy)

CoSAR: geometrical analysis and image formation assessment

Marc Rodriguez-Cassola (DLR, Germany); Paco López-Dekker, Pau Prats and Francesco De Zan (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany); Alberto Moreira (German Aerospace Center - DLR, Germany)

A mission for measuring ocean surface current vectors

Samuel Doody (Airbus DS Ltd, United Kingdom); Jose Marquez-Martinez (Airbus Defence & Space Ltd, United Kingdom); Ben Dobke (Airbus Defence and Space Ltd, United Kingdom); Christine Gommenginger and Adrien Martin (National Oceanography Centre, United Kingdom)

Potentials and Limitations of MEO SAR

Jalal Matar and Paco López-Dekker (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

Aerospace technology and Dual Use: COSMO-SkyMed mission status and future perspectives

Maria Libera Battagliere, Maria Girolamo Daraio, Patrizia Sacco and Maria Virelli (Italian Space Agency, Italy); Alessandro Coletta (ASI, Italy)

(G2.8): Calibration and Technology (I)

Chairs: Dirk Geudtner (European Space Agency, The Netherlands), Björn J. Döring (German Aerospace Center (DLR), Germany)

Statistical Analysis of Ambiguity to Signal Ratio Levels based on Global Backscattering Maps

Thomas Börner (German Aerospace Center, Germany); Marianonietta Zonno, Paco López-Dekker, Steffen Wollstadt, Sigurd Huber and Marwan Younis (German Aerospace Center (DLR), Germany)

A New Measurement Principle for Determining the Polarization Direction of Calibration Transponder Antennas

Björn J. Döring and Marco Schwerdt (German Aerospace Center (DLR), Germany)

Sentinel-1A Calibration Support during Routine Operation

Kersten Schmidt, Marco Schwerdt, Gabriel Castellanos Alfonzo and Nuria Tous-Ramon (German Aerospace Center (DLR), Germany)

Radiometric Accuracy and Stability of TerraSAR-X and TanDEM-X

John Walter Antony, Kersten Schmidt and Marco Schwerdt (German Aerospace Center (DLR), Germany); Donata Polimeni (DLR, Germany); Nuria Tous-Ramon, Markus Bachmann and Gabriel Castellanos Alfonzo (German Aerospace Center (DLR), Germany)

Adaptive Optronic SAR Processor with the Adjust-and-See Capability

Yesheng Gao (Shanghai Jiao Tong University, P.R. China); Kaizhi Wang (Shanghai Jiaotong University, P.R. China); Xingzhao Liu and Yuezeng Su (Shanghai Jiao Tong University, P.R. China)

(D9): Advanced Processing Techniques (II)

Chairs: Andreas R. Brenner (Fraunhofer FHR, Germany), Junghyo Kim (Airbus DS GmbH & Space System, Germany)

Passive multi-perspective GNSS-based SAR using CLEAN technique: an experimental study

Fabrizio Santi (University of Rome "La Sapienza", Italy); Marta Bucciarelli (SYMPAS S. r. l. & University of Rome, "La Sapienza", Italy); Debora Pastina (University of Rome "La Sapienza", Italy); Michail Antoniou and Mikhail Cherniakov (University of Birmingham, United Kingdom)

[Multichannel Staggered SAR Azimuth Sample Regularization](#)

Felipe Queiroz de Almeida (German Aerospace Center (DLR) & Microwaves and Radar Institute, Germany); Gerhard Krieger (DLR, Germany)

[Robustness of LRMR based Passive Radar Imaging to Phase Errors](#)

Eric Mason and Birsen Yazıcı (Rensselaer Polytechnic Institute, USA)

[DPCA Imaging from Nonuniform Sampling: an lq Regularization Based Approach](#)

Xiangyin Quan (University of Chinese Academy of Sciences & Institute of Electronics, Chinese Academy of Sciences, P.R. China); Bingchen Zhang (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Xiao Xiang Zhu (German Aerospace Center (DLR), Remote Sensing Technology & Technical University of Munich (TUM), Signal Processing in Earth Observation, Germany); Wen Hong (National Key Laboratory of Microwave imaging Technology & Institute of Electronics, Chinese Academy of Sciences, P.R. China); YiRong Wu (National Key Laboratory of Microwave Imaging Technology, P.R. China)

[Three-dimensional High Resolution Imaging Method of Multi-pass Circular SAR Based on Joint Sparse Model](#)

Shiheng Zhu (Shanghai Jiao Tong University & Shanghai Key Laboratory of Intelligent Sensing and Recognition, P.R. China); Zenghui Zhang, Bin Liu and Wenxian Yu (Shanghai Jiao Tong University, P.R. China)

(E9): Image Filtering, Enhancement and Correction

Chairs: Jens Fischer (German Aerospace Center (DLR), Germany), Andreas Reigber (German Aerospace Center (DLR), Germany)

[Geometric and Polarimetric Sharpening of SAR Images by Kennaugh- and Schmittlet-based Multi-frequency Data Fusion](#)

Andreas Schmitt (German Aerospace Center, Germany); Anna Wendleder (German Aerospace Center (DLR), Germany)

[Validation of Ionospheric Mapping by means of SAR through Ground Based Radar and GNSS Measurements](#)

Jun Su Kim (DLR, Germany); Hiroatsu Sato and Konstantinos P. Papathanassiou (German Aerospace Center, Germany)

[Feature Enhanced Imaging with Compressed Fractional SAR Sensors: Inverse Problem Formalism and l2-l1 Structured Descriptive Regularization Framework](#)

Yuriy V. Shkvarko (Cinvestav Jalisco, Mexico); Andreas Reigber (German Aerospace Center (DLR), Germany); Guillermo García (Universidad de Guadalajara, Mexico)

[Evaluation of a Bilateral Filtering Approach for Tomographic SAR Denoising](#)

Olivier D'Hondt and Stéphane Guillaso (TU-Berlin, Germany); Carlos López-Martínez (Universitat Politècnica de Catalunya (UPC), Spain); Olaf Hellwich (Berlin University of Technology, Germany)

[Fully PolSAR Image Classification Using A Diffusion-Reaction System Enhanced with Morphological Filtering](#)

Luis Gomez (University of Las Palmas G. C., Spain); Luis Alvarez (Universidad de Las Palmas de Gran Canaria & Campus de Tafira, Spain); Luis Mazorra (Universidad de Las Palmas de Gran Canaria, Spain); Alejandro C Frery (Universidade Federal de Alagoas, Brazil)

(F9): SAR Data for Land, Vegetation and Surveillance (I)

Chairs: Jürgen Janoth (Airbus Defence and Space, Germany), Seungbum Kim (JPL, USA)

[Using machine learning and SAR data for the upscaling of large scale modelled soil moisture in the Alps](#)

Felix Greifeneder and Claudia Notarnicola (EURAC, Italy); Wolfgang Wagner (Vienna University of Technology, Austria)

[Monitoring Forest Structure Dynamics by means of TomoSAR Techniques at L-band](#)

Victor Cazcarra-Bes and Marivi Tello (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany); Michael Heym and Peter Biber (Technische Universität München (TUM), Germany)

[Global retrieval of surface soil moisture using L-band SMAP SAR data and its validation](#)

Seungbum Kim (JPL, USA); Joel T. Johnson (The Ohio State University, USA); Mahta Moghaddam (University of Southern California, USA); Leung Tsang (University of Washington, USA); Jakob van Zyl (Jet Propulsion Laboratory, USA); Andreas Colliander and Roy Dunbar (JPL, USA); Tom Jackson (USDA-ARS, USA); Sermsak Jaruwatanadilok and Richard West (JPL, USA); Aaron Berg (Univ Guelph, Canada); Todd Caldwell (Univ Texas, USA); Mike Cosh (USDA, USA); Ernesto Lopez Baeza (Valencia, Spain); Marc Thibeault (CONAE, Argentina); Jeff Walker (Monash University, Australia); Dara Entekhabi (MIT, USA); Simon Yueh (JPL-CalTech, USA)

[VB-SAR For Remote Stand-off Subsurface Imaging: First Demonstration](#)

Alexander Edwards-Smith and Keith Morrison (Cranfield University, United Kingdom)

[Comparison of P/L Band Digital Array SAR for the Foliage/Sands Subsurface Penetration Detection](#)

Ning Zhao, Jianguo Lu, Ge Jia-long, Baidong Yao and Renyuan Chen (East China Research Institute of Electronic Engineering, P.R. China)

(G1.9): Next Generation SAR Missions (II)

Chairs: Markus Bachmann (German Aerospace Center (DLR), Germany), Matteo Pardini (German Aerospace Center (DLR), Germany)

[Next Generation Low Cost SAR Developments](#)

Samuel Doody (Airbus DS Ltd, United Kingdom); Martin Cohen and Jose Marquez-Martinez (Airbus Defence & Space Ltd, United Kingdom)

[Calibration Concepts for Future Low Frequency SAR Systems](#)

Jens Reimann, Marco Schwerdt and Björn J. Döring (German Aerospace Center (DLR), Germany); Manfred Zink (DLR, Germany)

[Design of Passive Non-Cooperative Spaceborne SAR Payloads - Challenges and Strategies](#)

Jose Marquez-Martinez (Airbus Defence & Space Ltd, United Kingdom); Karen Mak (Airbus Defence & Space Ltd., United Kingdom); Michael Notter (Airbus DS Ltd, United Kingdom); Les Griffiths (Astrium Ltd, United Kingdom); David Hall (Airbus DS Ltd, United Kingdom)

[Product-Level Performance Models for the Tandem-L Mission: Forest Structure Case Study](#)

Maria J. Sanjuan-Ferrer and Matteo Pardini (German Aerospace Center (DLR), Germany); Daniela Borla Tridon (DLR, Germany); Paco López-Dekker (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany); Markus Bachmann (German Aerospace Center (DLR), Germany)

[Tandem-L Observation Concept - An Acquisition Scenario for the Global Scientific Mapping Machine](#)

Markus Bachmann (German Aerospace Center (DLR), Germany); Daniela Borla Tridon (DLR, Germany); Francesco De Zan (German Aerospace Center (DLR), Germany); Gerhard Krieger and Manfred Zink (DLR, Germany)

(G2.9): Calibration and Technology (II)

Chairs: Helene Oriot (ONERA, France), Marco Schwerdt (German Aerospace Center (DLR), Germany)

[Phase Calibration of Tomographic SAR data using volumetric natural targets](#)

Stefano Tebaldini (Politecnico di Milano, Italy); Fabio Rocca (Politecnico di Milano & TeleRilevamento Europa, Italy); Mauro Mariotti d'Alessandro (Politecnico di Milano, Italy); Laurent Ferro-Famil (University of Rennes 1, France)

[Verification of Sentinel-1B Internal Calibration - First Results](#)

Nuria Tous-Ramon, Marco Schwerdt, Gabriel Castellanos Alfonso and Kersten Schmidt (German Aerospace Center (DLR), Germany)

[Improving SAR-MTI Detection Capacities by Adaptive Antennas Calibration](#)

Abigael Taylor (ONERA, the French Aerospace Lab, France); Helene Oriot and Laurent Savy (ONERA, France); Franck Daout (GEA universite Paris 10, France); Philippe Forster (Universite Paris Ouest Nanterre, France)

[The Three-Transponder Method: A Novel Approach for Trace-able \(E\)RCS Calibration of SAR Transponders](#)

Björn J. Döring, Jens Reimann and Sebastian Raab (German Aerospace Center (DLR), Germany); Matthias Jirousek (DLR German Aerospace Center, Germany); Daniel Rudolf and Marco Schwerdt (German Aerospace Center (DLR), Germany)

[A Compact Antenna Rotation Concept for Precise Polarimetric SAR Calibration Transponders](#)

Daniel Rudolf and Björn J. Döring (German Aerospace Center (DLR), Germany); Matthias Jirousek (DLR German Aerospace Center, Germany); Jens Reimann and Marco Schwerdt (German Aerospace Center (DLR), Germany)

(D10): Bistatic SAR

Chairs: Ingo Walterscheid (Fraunhofer FHR, Germany), Robert Wang (Institute of Electronics, Chinese Academy of Sciences & University of Siegen, P.R. China)

[Relative Height Accuracy Analysis of TanDEM-X DEM Products](#)

Carolina González and Benjamin Bräutigam (German Aerospace Center (DLR), Germany)

[Investigations on Bistatic SAR Image Formation for the SAOCOM-CS Mission](#)

Pau Prats (German Aerospace Center (DLR), Germany); Marc Rodriguez-Cassola (DLR, Germany); Alberto Moreira (German Aerospace Center - DLR, Germany)

[Extended Space Doppler Adaptive Processing for Bistatic Multichannel ISAR imaging of targets masked by strong clutter](#)

Samuele Gelli (University of Pisa & Radar and Surveillance Systems (RaSS) National Laboratory, Italy); Alessio Bacci (CNIT & University of Pisa, Italy); Marco Martorella and Fabrizio Berizzi (University of Pisa, Italy)

[Improvement in Bistatic SAR coherence through spatially variant polarimetry](#)

Daniel Andre (Cranfield University & Defence Academy of the United Kingdom, United Kingdom); Keith Morrison (Cranfield University, United Kingdom)

[Very High-Resolution Bistatic SAR Imaging with TerraSAR-X as the Illuminator in ST Mode](#)

Heng Zhang and Yunkai Deng (Institute of Electronics, Chinese Academy of Sciences, P.R. China); Robert Wang (Institute of Electronics, Chinese Academy of Sciences & University of Siegen, P.R. China)

(E10): Wave Propagation

Chairs: Andreas Danklmayer (Fraunhofer FHR, Germany), Boris Georgievich Kutuza (Russian Academy of Sciences, Russia)

[Atmospheric Effects for Air-and Spaceborne SAR revisited](#)

Andreas Danklmayer (Fraunhofer FHR, Germany)

[Ionospheric Phase Screen and Ionospheric Azimuth Shift Estimation Combining the Split-Spectrum and Multi-Squint Methods](#)

Giorgio Gomba, Francesco De Zan and Alessandro Parizzi (German Aerospace Center (DLR), Germany)

[Combined method for estimation the angle of Faraday rotation when processing data from the on board P-band SAR](#)

Boris Georgievich Kutuza, Alexander Moshkov and Victor Pozhidayev (Russian Academy of Sciences, Russia)

[Analysis of Background Ionospheric Effects on Geosynchronous SAR Azimuth Imaging](#)

Yifei Ji (National University of Defense and Technology, P.R. China); Qilei Zhang, Zhang YongSheng, Anxi Yu and Zhen Dong (NUDT, P.R. China)

(F10): SAR Data for Land, Vegetation and Surveillance (II)

Chairs: Parivash Lumsdon (Airbus Defence and Space, Germany), Jürgen Janoth (Airbus Defence and Space, Germany)

[A review of SAR imagery exploitation methods in support of Defence and Security missions](#)

Jean Philippe Robin, Marc Lafitte and Enrique Coiras (EU Satellite Centre, Spain)

[Assessment of leaf wetness variation effect on differential interferometric observables](#)

Virginia Brancato (ETH Zurich, Switzerland); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

[Comparing Incoherent and Coherent techniques for the Detection of Scene changes from multi-temporal SAR imagery](#)

Nertjana Ustalli, Debora Pastina and Federica Pieralice (University of Rome "La Sapienza", Italy); Pierfrancesco Lombardo (University Roma La Sapienza, Italy); Franco Ciaramaglia (SELEX ES, Italy); Antonio Graziano (SELEX - Sistemi Integrati, Italy)

[Categorization based on sparse coding for SAR patch categorization](#)

Dušan Gleich (University of Maribor, Slovenia)

[Superpixel-Based Unsupervised Classification of PolSAR Imagery Using Wishart Mixture Models and Spectral Clustering](#)

Xiangli Yang, Wen Yang and Hui Song (Wuhan University, P.R. China); Pingping Huang (Inner Mongolia University of Technology, P.R. China)

(G1.10): Next Generation SAR Missions (III)

Chairs: Christoph Heer (Airbus DS GmbH, Germany), Federica Bordoni (German Aerospace Center (DLR), Germany)

[SAR Cross-Ambiguities in SAOCOM-CS Large Baseline Bistatic Configuration](#)

Federica Bordoni (German Aerospace Center (DLR), Germany); Marc Rodriguez-Cassola and Gerhard Krieger (DLR, Germany)

[Tandem-L: Design Concepts for a Next-Generation Spaceborne SAR System](#)

Sigurd Huber, Michelangelo Villano and Marwan Younis (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany); Alberto Moreira (German Aerospace Center - DLR, Germany); Bernhard Grafmueller (Airbus DS GmbH, Germany); Reinhard Wolters (Airbus Defense & Space, Germany)

[A SAR Interferometer Experiment to Explore the Surface of Venus](#)

Roberto Seu (University of Rome "Sapienza", Italy); Suzanne Smrekar and Scott Hensley (Jet Propulsion Laboratory, USA); Pierfrancesco Lombardo (University Roma La Sapienza, Italy)

[Research on Bi-satellite Ka-band FMCW SAR Design and Imaging](#)

Hui Wang (Institute of Electronics, Chinese Academy of Sciences Beijing, P.R. China); Man Jiang (ShanDong HuYu Sapce Technology Company & ShanDong HuYu Sapce Technology Company, P.R. China); Shichao Zheng (Beihang University, P.R. China)

(G2.10): Digital Beamforming

Chairs: Martin Suess (ESA/ESTEC, The Netherlands), Rafael Rincon (NASA/Goddard Space Flight Center, USA)

[Development of NASA'S Next Generation L-Band Digital Beamforming Synthetic Aperture Radar \(DBSAR-2\)](#)

Rafael Rincon (NASA/Goddard Space Flight Center, USA); Temilola Fatoyinbo (NASA, USA); Batuhan Osmanoglu (USRA - NASA GSFC, USA); SeungKuk Lee (NASA Goddard Space Flight Center, USA); K. Ranson (NASA, USA); Victor Marrero (NASA/GSFC, USA); Mark Yeary (University of Oklahoma, USA)

ECOSAR: P-Band Digital Beamforming Polarimetric and Single Pass Interferometric SAR: Instrument Performance

Rafael Rincon (NASA/Goddard Space Flight Center, USA); Temilola Fatoyinbo (NASA, USA); Batuhan Osmanoglu (USRA - NASA GSFC, USA); SeungKuk Lee (NASA Goddard Space Flight Center, USA); K. Ranson and Guoqing Sun (NASA, USA); Tobias Bollian (USRA - NASA GSFC, USA)

End-to-end simulation of reflector based DBF SAR Systems

Paco López-Dekker (German Aerospace Center (DLR), Germany); Felipe Queiroz de Almeida (German Aerospace Center (DLR) & Microwaves and Radar Institute, Germany); Marc Rodriguez-Cassola (DLR, Germany); Pau Prats, Octavio Ponce and Marwan Younis (German Aerospace Center (DLR), Germany)

Experimental Verification of High-Resolution Wide-Swath Moving Target Indication

Stefan V. Baumgartner (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

Matrix Pencil Method for Direction of Arrival Estimation in DBF-SAR

Tobias Rommel (German Aerospace Centre (DLR), Germany); Marwan Younis (German Aerospace Center (DLR), Germany)