Table of Contens

Gamma S-Band and L-Band SAR Systems for UAV-Borne SAR Imaging and Interferometric Applications 1

Charles Werner (GAMMA Remote Sensing Research and Consulting AG, Switzerland); Othmar Frey (ETH Zurich & Gamma Remote Sensing, Switzerland); Silvan Leinss and Tobias Batt (Gamma Remote Sensing AG, Switzerland); Timothy Dixon and Taha Sadeghi Chorsi (University of South Florida, USA); Elias J. Deeb, Adam L. Lewinter, Dominic L Filiano and Cameron J Wagner (Cold Regions Research

Examining DInSAR and PolSAR SWE Retrieval Prerequisites for Snow on Glaciers 7

Anna Behrmann (German Aerospace Center (DLR) & ETH Zürich (Application Pending), Germany); Georg Fischer (German Aerospace Center (DLR), Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

The TanDEM-X 4D Phase – Monitoring a Changing Earth. 12

Markus Bachmann (German Aerospace Center (DLR), Germany); Allan Bojarski (German Aerospace Center, Germany); Johannes Böer (German Aerospace Center (DLR), Germany); Stefan Buckreuss (DLR, Germany); Thomas Fritz (German Aerospace Center (DLR), Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Ralph Kahle, Thomas Kraus, Patrick T.P. Klenk, Marie Lachaise, Miguel Lino and Kay Müller (German Aerospace Center (DLR), Germany); Daniel Schulze (German Aerospace Center (DLR, GSOC), Germany); Maximilian Schandri (DLR - HR, Germany); Ulrich Steinbrecher (DLR, Germany); Birgit Wessel (German Aerospace Center (DLR) & DFD-LAX, Germany); Manfred Zink (DLR, Germany)

Ocean Current Retrievals from Moving Wave Patterns in Reprocessed Spotlight SAR Images 16

Roland Romeiser (University of Miami, USA); Hans Graber (Center for Southeastern Tropical dvanced Remote Sensing, University of Miami, USA)

Lightweight Convolutional Neural Networks for Tiny Ship Detection in Sentinel 1 Images. 19

Steffen Merseburga, Uwe Soergela a University of Stuttgart, Geschwister-Scholl-Str. 24D, 70174 Stuttgart, Germany

TanDEM-X DEM Change Maps Time Series: Applications for 4D Earth Surface Monitoring 25

Marie Lachaise, Barbara Schweißhelm, Nesredin Kenzu Abdela German Aerospace Center (DLR), Oberpfaffenhofen, Germany

TerraSAR-FOX: Mission Status and Challenges for Phase A 30

Adriana Elizabeth Nuncio Quiroz (German Aerospace Center (DLR), Germany); Christian Bruens and Robert Partsch (DLR, Germany); Samuel Stettner (German Aerospace Center (DLR) & Space Administration, Germany)

BANet: A Regression-Based Backprojection Autofocus Network for SAR Imagery 35

Kannan Balakrishnan (Fraunhofer-Institut Für Hochfrequenzphysik Und Radartechnik FHR‘, Germany); Stephan Palm (Quantum-Systems GmbH, Germany)

Autofocus for very low altitude high resolution SAR on a light multirotor UAV 41
Hubert M.J. Cantalloube, Joana Frontera-Pons, Frederic Brigui, Nicolas Castet, and Joseph Martinot-Lagarde DEMR ONERA Université Paris Saclay, F-91123 Palaiseau, France DEMR ONERA École de l'Air, F-13661 Salon CEDEX AIR-France

Distributed Drone-Based Demonstrator for SAR: the First Results 47
Leonardo Carrer (Aresys, Italy); Stefano Moro (Aresys Srl, Italy); Davide Giudici (Aresys srl, Italy); Pietro Grassi (Politecnico di Milano, Italy); Pietro Guccione (Aresys); Marco Manzoni (Politecnico di Milano, Italy); Daniele Mapelli (ARESYS, Italy); Naomi Petrushevsky (Politecnico di MIlano, Italy); Stefano Tebaldini (Politecnico di Milano, Italy); Paolo Falcone (Aresys srl, Italy)

Post-Fire Peatland Deformation Analysis Using Sentinel-1 MT-In-SAR. 52
Chia-Hsiang Yang (EFTAS Remote Sensing Transfer of Technology GmbH, Germany); Dirk indemann (EFTAS Fernerkundung Technologietransfer GmbH, Germany); Andreas Müterthies (EFTAS Remote Sensing Transfer of Technology GmbH, Germany); Patrick Wolf (NLU-Projektgesellschaft mbH & Co. KG, Germany)

Towards Drone-Based Single-Pass Across-Track SAR Interferometry 58
Victor Mustieles-Perez and Arthur Cruz-Shinzato (German Aerospace Center (DLR), Germany); Marius Widmann and Frederik Bormuth (Ulm University, Germany); Gerhard Krieger (DLR, Germany); Christian Damm (Ulm University, Germany); Christian Waldschmidt (University of Ulm, Germany); Michelangelo Villano (German Aerospace Center (DLR), Germany)

Virtual Delay-Emission (VDE): A High-Resolution andWide-Swath (HRWS) Imaging Mode for Spaceborne MIMO-SAR. 64
Yanyan Zhang, Akira Hirose and Ryo Natsuaki (The University of Tokyo, Japan)

A Method for Significant Wave Height Extraction based on Synthetic Aperture Radar Images 70
Huimin Li, Chen Wang and Zhixiong Wang (AITECH, China); XiaoMing Li (Aerospace Information Research Institute, Chinese Academy of Sciences, Chinese Academy of Sciences, China)

Configuration Optimization and Performance Analysis of Multi-Dimensional Deformation and roposphere Joint Measurement Using Multi-angle Spaceborne D-InSAR. 76
Junpeng Ren (Beijing Institute of Technology, China); Xin Xie (Beijing Insititute of Technology, China); Xingzhe Zhao, Zhiyang Chen and Yuanhao Li (Beijing Institute of Technology, China)

YOLO-Q: A Lightweight Object Detection Model for Maritime ship Targets with Sparse-query Mechanism 82
Yang Jian, Mengchen Dong, Yan Ling and Xueyan Dong (Rocket Force University of Engineering, China)

Evaluating Atmospheric Influence on X-Band InSAR Coherence for Infrastructure Monitoring. 87
Stefan Scheiblauer (University of the Bundeswehr Munich, Germany); rancescopaolo Sica (University of the Bundeswehr Munich (UniBw), Germany); Michael Schmitt (University of the Bundeswehr Munich, Germany)

Insights from Landscape-Scale Integration to Sentinel-1-Based Detectionand Evaluation of Crop Phenology at Field Level 92
Johannes Löw (Martin-Luther-University Halle-Wittenberg, Germany); Christopher Conrad (Martin-Luther-University, Germany); Steven Hill, InsaOtte and Tobias Ullmann (University of Würzburg,Germany)

Spatial and temporal glacier zone variability on the Canadian Arctic Archipelago from 2017 to 2023 using TerraSAR-X. 98
Anna Wendleder (German Aerospace Center (DLR) & Microwaves and Radar nstitute, Germany); Markens Spasari (Munich University of Applied Sciences (HM), Germany); Sarah Hauser (Karlsruhe Institute of Technology (KIT) & Hochschule München University of Applied Sciences, Germany); Sahra Abdullahi (German Aerospace Center (DLR), Germany); Andreas Schmitt (Hochschule München University of Applied Sciences, Germany & Institute for Applications of Machine Learning and Intelligent Systems (IAMLIS), Germany)

Observations of InSAR Closure Phase and Coherence Over Crops in the Thessaloniki Region, Greece 104
Lorette Drique (Institut de Physique Du Globe de Paris (IPGP), France & CEA, France); Manon Dalaison (Institut de Physique Du Globe de Paris (IPGP), France); Béatrice Pinel-Puysségur (CEA, France); Nobuaki Fuji (Institut de Physique Du Globe de Paris (IPGP) & Institut Universitaire de France, France)

HydroDrone: a UAV InSAR Campaign to Measure Short-Term Temporal Decorrelation 110
Pietro Grassi and Marco Manzoni (Politecnico di Milano, Italy); Stefano Moro (Aresys Srl, Italy); Andrea Monti-Guarnieri (Politecnico di Milano, Italy); Julia Kubanek (ESA/ESTEC, The Netherlands); Stefano Tebaldini (Politecnico di Milano, Italy)

HydroDrone: a UAV InSAR Campaign to Measure Short-Term Temporal Decorrelation 110
Pietro Grassi and Marco Manzoni (Politecnico di Milano, Italy); Stefano Moro (Aresys Srl, Italy); Andrea Monti-Guarnieri (Politecnico di Milano, Italy); Julia Kubanek (ESA/ESTEC, The Netherlands); Stefano Tebaldini (Politecnico di Milano, Italy)

Integrating Synthetic Aperture Radar Data into a Monitoring Tool for Sugarcane in the Cauca Valley, Colombia 116
Alejandro Mestre-Queredaa, Juan M. Lopez-Sancheza, Tomas Martinez-Marina, Victor Cazcarra-Besa, Carlos Mosquerab, Juliana Lozanob, Jhonatan Quinonesb, Henk Pelgrumc, Antonia Skarlic, Corné van der Sandec, Andrea Idrovoc, Dirk Hoekmand, and Martin Vissersd aInstitute for Computer Research, University of Alicante,Cali, Valle, Colombia ceLEAF, The Netherlands dSarVision, The Netherlands

Comparison of Dual and Fully Polarimetric SAR for Soil Moisture Retrieval 122
Marion Dugué (ETH Zürich, Switzerland); Nikita Basargin (German Aerospace Center (DLR) & Technical University of Munich (TUM), Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

Enhanced Wave mode experiment with Sentinel-1D 127
Paco Lopez Dekker and Philip Conroy (Delft University of Technology, The etherlands); Mario M Azcueta (European Space Agency / ESTEC, The Netherlands)

Ray-Tracing-Based SAR Simulator with Automated Labeling for Rapid Airborne SAR AI Development 129
Krzysztof Gromada, Piotr Pokornowski and Maciej Wielgo (XY-Sensing, Poland); Jacek Misiurewicz and Piotr Samczynski (Warsaw University of Technology, Poland)

BIOMASS P-band Interferometry: Temporal Stability Study and Comparison with Airborne SAR Experiments in Gabon. 135
Fred Terrance Ndouni Missono (German Aerospace Center (DLR), Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Roman Guliaev (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany)

Achieving a Continuous Duty Cycle with the f-STEC Imaging Mode 141
Dominik Thois (German Aerospace Centre (DLR), Germany); Marwan Younis (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

Concept forWide-Area Maritime Surveillance with Spaceborne Cognitive SAR . . 147
Fairouz Stambouli, Sushil Kumar Joshi, Stefan Baumgartner, Marwan Younis, and Gerhard Krieger German Aerospace Center (DLR), Microwaves and Radar Institute, Wessling, Germany

Retrieval of Ocean Wave Parameters from Tiangong-2 InIRA Image. 152
Guo Li (National Space Science Center, CAS, China); Yunhua Zhang and Xiao Dong (National Space Science Center, Chinese Academy of Sciences, China); Xiaojin Shi and Wenshuai Zhai (National Space Science Center, Chinese Academy of Sciences,China); Dong Li (National Space Science Center, Chinese Academy of Sciences, China)

Slope-Correlated Phase Bias in L-band InSAR Time Series 157
Shogo Nagaoka and Youichiro Takada (Hokkaido University, Japan)

Video-SAR processing for moving target characterization 162
Temesgen Gebrie Yitayew and Geir Engen (Norwegian Research Center AS NORCE, Norway); Yngvar Larsen (NORCE, Norway); Michela Corvino (ESA Centre for Earth Observation (ESRIN), Italy)

X-Band UAV SAR Tomography for Measuring Snowpack Height and Stratification 165
Luca Mantuano, Pietro Grassi and Marco Manzoni (Politecnico di Milano, Italy); Martina Lodigiani, Paolo Perret and Fabrizio Troilo (Fondazione Montagna Sicura, Italy); Lorenzo Silvestri and Francesco Zucca (Università di Pavia, Italy); Marco Pasian (University of Pavia, Italy); Stefano Moro (Aresys Srl, Italy); Stefano Tebaldini (Politecnico di Milano, Italy)

Simultaneous estimation of Doppler centroid anomaly and normalized radar cross section for L2 ocean products. 170
Geir Engen (Norwegian Research Center AS NORCE, Norway); Yngvar Larsen (NORCE, Norway); Temesgen Gebrie Yitayew (Norwegian Research Center AS NORCE, Norway)

3D-ABC: A Foundation Model for Global Terrestrial 3D Above and Below Ground Carbon Stock Mapping 173
Megan Udy and Matteo Pardini (German Aerospace Center (DLR), Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Guido Grosse (Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Potsdam, Germany); Pedram Ghamisi (Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany); Gabriele Cavallaro (Jülich Supercomputing Centre, Germany); Martin Herold (Helmholtz Centre for Geosciences, Potsdam, Germany); Andreas Huth (Helmholtz Centre for Environmental Research (UFZ), Germany)

Geostationary SAR for snow applications: design and performance 179
Pietro Guccione, Leonardo Carrer and Andrea Recchia (Aresys, Italy); Andrea Monti-Guarnieri (Politecnico di Milano, Italy)

Two-Dimensional Autofocusing for Sparse SAR Imaging Based on Trajectory Error Modeling and Iterative Compensation: Initial Result 185
Deshui Yu, Jingjing Zhang, Minyu Zhu, Min Zhou, Xiao Chen and Hui Bi (Nanjing University of Aeronautics and Astronautics, China)

The PAZ-2 Satellite and SAR Instrument Concepts. System Design, Performances and Development Overview 190
Javier del Castillo Mena, Marc Bergada, Miguel Piera Martinez, Roberto Palacios Bravo and Jaione Martinez Cengotitabengoa (Airbus Defence and Space, Spain)

RADARSAT+: Status and Evolution 196
Patrick Plourde, Etienne Boulais, Stéphane Chalifoux, Stephane Cote, Émile Coté-Pelletier, Eric Dubuc, Nicolas Duchaussoir, Aurélien Fourmault, Phuc Hai Ly, Mays Ahmad, Geneviève Houde, Chloé Mireault-Lecourt and Pierre Nadeau (Canadian Space Agency, Canada)

Investigating the Potential for SAR Acquisition Parameter Independence in Change Detection via Deep-Learning-Derived nDSMs 201
Christopher Ummerle and Michael Schmitt (University of the Bundeswehr Munich, Germany)

MDA CHORUS Mission Update 207
Jayanti J. Sharma and Ron Caves (MDA, Canada); Vince Mantle (Macdonald Dettwiler & Associates Ltd., Canada)

Harmony - Intersatellite phase synchronization for bistatic SAR interferometric mission 212
Simone Gabrielli and Katarina Jesswein (OHB System AG, Germany); Daniele Mapelli (ARESYS, Italy); Tatiana Martelli (Aresys, Italy); Eduardo Rodrigues-Silva (German Aerospace Center DLR, Germany); Marc Rodriguez-Cassola (DLR, Germany)

Learning and Predicting Seasonal Glacier Dynamics from HELIX-Fused Sentinel-1 and TerraSAR-X Time Series 218
Sarah Hauser (Karlsruhe Institute of Technology (KIT) & Hochschule München University of Applied Sciences, Germany); Andreas Schmitt (Hochschule München University of Applied Sciences, Germany & Institute for Applications of Machine Learning and Intelligent Systems (IAMLIS), Germany); Anna Wendleder (German Aerospace Center (DLR) & Microwaves and Radar Institute, Germany); Stefan Hinz (Karlsruhe Institute of Technology, Germany)

SAR system performance results from the Biomass In-orbit Commissioning Phase 224
Antonio Leanza (European Space Agency, ESA/ESTEC, The Netherlands); Tristan Simon (European Space Agency (ESTEC), The Netherlands); Bjorn Rommen (European Space Agency, ESA/ESTEC, The Netherlands); Klaus Scipal (European Space Agency, ESA/ESRIN, Italy); Philip Willemsen (European Space Agency ESTEC, The Netherlands)

Multistatic SAR via Joint Sparsity Compressive Sensing for Back-Projection and Experimental Validation 229
Jihwan Cheong, Heewoo Lee, Yongsun Yoo,Pyeongju Kim and Wookyung Lee (Korea Aerospace University, Korea (South))

Performance Comparison of Cognitive SAR System Concepts for Ship Detection ***235***
Jan Meyer (FAU Erlangen & DLR Oberpfaffenhofen, Germany); Kay Glatting and Sigurd Huber (German Aerospace Center (DLR), Germany); GerhardKrieger (DLR, Germany)

Multistatic SAR Synchronization and Baseline Determination with Communication Links ***241***
Reuben Solomon Katz (DLR - German Aerospace Center, Germany); Marc Rodriguez-Cassola (DLR, Germany); Felix Antreich (Aeronautics Institute of Technology (ITA), Brazil); Eduardo Rodrigues-Silva (German Aerospace Center DLR, Germany); Marco Schmidt (Julius-Maximilians-Universität Würzburg, Germany); Alberto Moreira (German Aerospace Center (DLR), Germany)

A radar back-end electronics for multi-mission purposes ***247***
Nunzio Torto and Stefano Paolucci (Thales Alenia Space Italia, Italy); Tiziano Botticchio (Thales Alenia Space, Italy); Pasquale Pepe (Thales Alenia Space Italia, Italy); Roberto Capezzali (Thales Alenia Space, Italy); Lorenzo Simone (Thales Alenia Space Italia S.p.A., Italy)

Distributed spaceborne SAR for enhanced micro-motion frequency resolution . ***252***
Finlay Rollo, Greta Zefi and Carmine Clemente (University of Strathclyde, United Kingdom (Great Britain))

Prompting Foundation Models for Zero-Shot Ship Instance Segmentation in SAR Imagery ***259***
Islam Mansour (University of the Bundeswehr Munich, Germany & ETH Zürich, Switzerland); Francescopaolo Sica (University of the Bundeswehr Munich (UniBw), Germany); Michael Schmitt (University of the Bundeswehr Munich, Germany)

Benchmarking Foundation Models for SARbased Urban Flood Mapping ***265***
Jie Zhao, Zhitong Xiong and Xiao Xiang Zhu (Data Science in Earth Observation, Technical University of Munich)

Sea-State-Aware Wake Segmentation for Maritime Surveillance ***271***
Angela Carmen Cristofano, Andrea Mazzeo, Maria Daniela Graziano and Alfredo Renga (University of Naples Federico II, Italy); Oktay Karakuş (Cardiff University, United Kingdom (Great Britain)); Giuliano Vernengo, Nicola Petacco and Diego Villa (University of Genova, Italy); Davide Bonaldo, Gian Marco Scarpa, Federica Braga, Paolo Vavasori and Stefano Menegon (CNR-ISMAR, Italy); Amedeo Fadini (CNR-ISMAR & IUAV University of Venice Scuola di Dottorato, Italy)

Deformation Measurement with P band Multi- pass UAV InSAR: Methodology and Experimental Validation ***276***
Xin Xie (Beijing Insititute of Technology, China); Yunkai Deng and Yuanhao Li (Beijing Institute of Technology, China); Zhijun Yang (Chongqing Jiaotong University, China); Tian Weiming (Beijing Institute of Technology, China)

Trade-Off Analysis for Staggered-SAR BLUE Interpolation using Bit-True Simulation ***282***
Johann Christian Marten and Marwan Younis (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

Leveraging the Segment Anything Model with Multi-Modal Sentinel-1 and Sentinel-2 Data for Landslide Detection ***288***
Pietro Di Stasio (University of Sannio, Italy); Deodato Tapete (Italian Space Agency, Italy); Paolo Gamba (Università degli Studi di Pavia, Italy); Silvia Liberata Ullo (Università Degli Studi del Sannio, Italy)

FM4CS: A Versatile Foundation Model for Multi-Scale SAR Applications: From Sea Ice to Flood Mapping 294
Theodor Forgaard and Øystein Rudjord (Norwegian Computing Center, Norway); Tore Wulf (Danish Meteorological Institute, Denmark); Arnt-Børre Salberg (Norwegian Computing Center, Norway)

OceanSAR-2: A Universal Feature Extractor for SAR Ocean Observation 300
Alexandre Tuel and Thomas Kerdreux (Galeio, France); Quentin Febvre, Alexis Mouche and Antoine Grouazel (LOPS, Ifremer, France); Jean-Renaud Miadana (OceanScope, France); Antoine Audras (Galeio, France); Chen Wang (Nanjing University of Information Science and Technology, Nanjing, China); Bertrand Chapron (IFREMER, France)

Sentinel-1 Mission Overview and Status After a Decade in Space. 307
Nuno Miranda (ESRIN, Italy & ESA, France); Muriel Pinheiro (EAS-ESRIN, Italy); Andrea Perrera (European Space Agency, Italy); Thibaut Decoopman (ESA ESTEC, The Netherlands); Ramon Torres (European Space Agency & ESTEC, The Netherlands); Dirk Geudtner (European Space Agency, France); Thomas Ormston and Alistair O'Connell (ESA, Germany); Jean-Baptiste Gratadour (ESA, The Netherlands)

Biomass Calibration Results from the Commissioning Phase. 313
Joel Amao-Oliva and Andre Barros Cardoso da Silva (German Aerospace Center (DLR), Germany); Felipe Betancourt-Payan (DLR, Germany); Marc Jäger (German Aerospace Center (DLR), Germany); Jun Su Kim (German Aerospace Center, Germany); Antonio Leanza (ESA - ESTEC & SERCO, The Netherlands); Gustavo Daniel Martín-del-Campo-Becerra (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany); Pau Prats-Iraola and Rolf Scheiber (German Aerospace Center (DLR), Germany)

AIX-enabled SAR Back-ends for autonomous monitoring and ultra-low-latency early warning services. 319
Vito Fortunato, Leonardo Amoruso, Cristoforo Abbattista and Enrico Sain (Planetek, Italy); Luigi Agrimano (Planetek Iltalia Srl, Italy); Stefano Oliva (Planetek Italia srl, Italy); Gianluca Furano (European Space Agency ESTEC, The Netherlands); Daniele Romagnoli (ESA ESRIN, Italy); Stefano Antonetti (D-Orbit, Italy); Lorenzo Feruglio (AIKO, Italy); Raffaele Nutricato (Geophysical Applications Processing, Italy)

MESRM-based Range Doppler Algorithm for Spaceborne SAR Sliding Spotlight Mode Imaging. 323
Zhuolin Fu and Kangxin Xiong (Beihang University, China); Tian Qiu (School of Electronics and Information Engineering, China & Beihang University, China); Zhirong Men and Pengbo Wang (Beihang University, China); Jie Chen (School of Electronics and Information Engineering, Beihang University, China

Results of Sentinel-1C &D In-Orbit SAR System Calibration 329
Dirk Geudtner (European Space Agency, France); Mario M Azcueta (European Space Agency /ESTEC, The Netherlands); Ignacio Navas-Traverand Tobias Bollian (European Space Agency, The Netherlands)

Sentinel-1D In-Orbit Commissioning results of pointing and temperature compensation assessment 335
Beatrice Mai, Andrea Recchia and Chiara Passerini (Aresys, Italy); Lisa Recchia (ARESYS SRL, Italy); Dirk Geudtner (European Space Agency, France); Ignacio Navas-Traver (European Space Agency, The Netherlands); Mario M Azcueta (European Space Agency / ESTEC, The Netherlands); Tobias Bollian (European Space Agency, The Netherlands)

Overview of the ESA-assisted National Earth Observation Programs 341
Martin Suess (ESA/ESTEC, The Netherlands); Enrico Massoni (European Space Agency (ESA), The Netherlands)

DLR's Independent Calibration of the Sentinel-1D SAR System: First Results with an Initial omparison to Sentinel-1C. 345
Patrick T.P. Klenk (German Aerospace Center (DLR), Germany); Jakob Giez (German Aerospace Center, DLR, Germany); Kersten Schmidt, Andrea Pulella, Matteo Nannini, Pau Prats-Iraola and Marco Schwerdt (German Aerospace Center (DLR), Germany)

Sentinel-1C and Sentinel-1D Internal Calibration Commissioning Results 351
Jakob Giez (German Aerospace Center, DLR, Germany); Patrick T.P. Klenk, Kersten Schmidt and Marco Schwerdt (German Aerospace Center (DLR), Germany)

UAV embedded circular SAR novel image generation and automated 3D reconstruction. 356
Vo Kim Thang (Satie - ENS-PARIS-SACLAY); Xavier de Milly and Frederic Brigui (ONERA, France)

Experimental Demonstration of Bistatic SAR Anti-Jamming Performance against Emulated DRFM Interference 360
Yongsun Yoo (Korea Aerospace University, Korea (South)); Chanhee Lee (KAIST, Korea (South)); Jihwan Cheong, Pyeongju Kim and Wookyung Lee (Korea Aerospace University, Korea (South))

Exploiting Cooperative SAR Satellites with a Ground-Based Receiver Network for Border Protection Enhancement 365
Bartosz Falęcki (Warsaw University of Technology, Poland); Detmer Bosma (TNO, The Netherlands); Pedro Gomez-del-Hoyo and Piotr Samczynski (Warsaw University of Technology, Poland)

Experimental evaluation of CCD processing using PAMIR-Ka 371
Patrick Berens (Fraunhofer FHR, Germany)

Enhanced SAR Coherent Change Detection based on Energy-Efficient Multi-Dimensional Attention Spiking Neural Network 375
Xinyi Ye, Yizhe Fan and Zirui Ma (Aerospace Information Research Institute, Chinese Academy of Sciences, China & University of Chinese Academy of Sciences, China); Bingchen Zhang (University of Chinese Academy of Sciences, China)

Overview of Sentinel-1 Instrument Status, Level-1 Product Performance and Evolutions 381
Muriel Pinheiro (EAS-ESRIN, Italy); Antonio Valentino (Starion for ESA, Italy); Guillaume Hajduch (CLS Group, Brest, France); Pauline Vincent (Collecte Localisation Satellites CLS, France); Andrea Recchia, Beatrice Mai and Martin Steinisch (Aresys, Italy); Kersten Schmidt, Christoph Gisinger, Helko Breit and Víctor D Navarro Sanchez (German Aerospace Center (DLR), Germany); Ruben Blériot (Apside, France)

Evaluation of Advanced SAR Processing Algorithms for Security Applications . 387
Nida Sakar (German Aerospace Center, Oberpfaffernhofen, Germany); Carmine Frascella and Federico Minati (B-Open Solutions, Italy); Andre Barros Cardoso da Silva, Stefan V. Baumgartner and Gustavo Daniel Martín-del-Campo-Becerra (German Aerospace Center (DLR), Germany); Marc Rodriguez-Cassola (DLR, Germany); Mario Costantini (B-Open Solutions, Italy); Michela Corvino (ESA Centre for Earth Observation (ESRIN), Italy); Pau Prats-Iraola (German Aerospace Center (DLR), Germany)

Mission and Operational Status of the Advanced Land Observing Satellite-4 (ALOS-4) ***392***
Ryo Kato, Yohei Kojima, Keisho Ito, Takeshi Motohka and Yukihiro Kankaku (Japan Aerospace Exploration Agency, Japan)

Deep Learning-Based Despeckling and Super-Resolution of SAR Images viaSubaperture Processing ***398***
Maria Bustos (Universität der Bundeswehr München,Germany); Francescopaolo Sica (University of the Bundeswehr Munich (UniBw), Germany); Michael Schmitt (University of the Bundeswehr Munich, Germany)

PSDefoPAT4Unwrapping: Integrating Knowledge on Spatial and Temporal Deformation Patterns into Phase Unwrapping ***404***
Madeline Stefania Evers (Fraunhofer Institute of Optronics, System Technologies and Image Exploitation (IOSB), Germany); Erich Cadario (Fraunhofer IOSB, Germany); Antje Thiele (Fraunhofer IOSB & KIT, Germany)

BIOMASS Commissioning Results on Calibration with Natural Targets ***410***
Laura Fioretti, Marco Di Trocchio, Francesco Banda, Emanuele Giorgi and Andrea Recchia (Aresys, Italy)

System Design and Initial Operation Results of ALOS-4/PALSAR-3 . . . . . ***416***
Masanobu Shibata, Shunsuke Ota, Masataka Yajima and Shohei Nakamura (Mitsubishi Electric Corporation, Japan); Keisho Ito, Takeshi Motohka and Yukihiro Kankaku (Japan Aerospace Exploration Agency, Japan)

ALOS-4/PALSAR-3 Initial Calibration/Validation Results. ***419***
Takeshi Motohka, Keisho Ito, Masato Ohki, Kazuki Yanagiya and Yutaro Shigemitsu (Japan erospace Exploration Agency, Japan)

Long-Term Evolution and Current Status of TerraSAR-X and TanDEM-X ***424***
Allan Bojarski (German Aerospace Center, Germany); Markus Bachmann, Johannes Böer, Christopher Wecklich, Patrick T.P. Klenk and Kersten Schmidt (German Aerospace Center (DLR), Germany); Ulrich Steinbrecher (DLR, Germany)

Sensitivity Study of PolSAR Variable Decomposition For Farmlands ***429***
Motofumi Arii and Suzuki Masataka (Mitsubishi Electric Corporation, Japan)

On Estimated Parameters of Modified 5-Component Scattering Power Decomposition of PolSAR data ***434***
Hiroyoshi Yamada, Chino Kobayashi and Ryoichi Sato (Niigata University, Japan)

Cluster-based Phase Coregistration Algorithm for Moving Target Detection in SAR images ***439***
Andrea Radius and Ozan Dogan (ICEYE OY, Finland); Risto Vehmas Risto Vehmas and Vladimir Ignatenko (ICEYE Oy, Finland); Leszek Lamentowski, Matthew Nottingham, Jan Krecke, Pierre Leprovost, Jere Vepsa, Santeri Kuronen and Darren Muff (ICEYE OY, Finland)

SAR Backends for Airborne and Spaceborne Radar Applications like PrecISR and OrbitISR ***445***
Tim Peikert, Thomas Möller, Alexander Dallinger and Kosmas Weidmann (HENSOLDT Sensors GmbH, Germany); Michael Brandfass (Hensoldt Sensors GmbH, Germany)

ICEYE Constellation Status Update: Multi-Spotlight, Multi-Image Activities (MIA), Mid-Inclination Orbits, and GEN-4 Upgrades 451
Vladimir Ignatenko (ICEYE Oy, Finland); Leszek Lamentowski, Ozan Dogan, Matthew Nottingham, Darren Muff and Pierre Leprovost (ICEYE, Finland); Andrea Radius (ICEYE OY, Finland); Jan Krecke (ICEYE OY, Italy); Risto Vehmas Risto Vehmas (ICEYE Oy, Finland)

Data-Driven Directional Wave Spectra Retrieval from SAR Cross-Spectra using Deep Learning 457
Manuel Lopez-Radcenco, Gilles Guitton, Parth Tripathi and Fabrice Collard (OceanDataLab, France)

Data Azimuth Recombination for Along-track SAR Swarm in Time Domain. 463
Adriano Persico, Federico Ulivieri and Mattia Penati (ARESYS, Italy); Davide Giudici (Aresys srl, Italy)

Model-driven Joint Sampling and Reconstruction Network for Azimuth Multichannel SAR System 469
Zirui Ma, Yizhe Fan and Xinyi Ye (Aerospace Information Research Institute, Chinese Academy of Sciences, China & University of Chinese Academy of Sciences, China); Zhe Zhang (Aerospace Information Research Institute, Chinese Academy of Sciences & Geroge Mason University, China); Bingchen Zhang (University of Chinese Academy of Sciences, China); Xiaolan Qiu (Institute of Electronics, Chinesa Academy of Sciences, China)

Improved Along-Track Deformation Retrieval with ROSE-L using Two-Look ScanSAR 474
Simon Trumpf, Pau Prats-Iraola and Douglas Kotsubo (German Aerospace Center (DLR), Germany); Dominik Richter (German Aerospace Center, Germany); Alberto Moreira (German Aerospace Center (DLR), Germany)

OpenSAR Insight: AI-Ready Datasets for Dark Vessel, Flood, and RFI Detection in Raw Sentinel-1 Data. 480
Mari-Cortes Benito-Ortiz and David Mata-Moya (University of Alcalá, Spain); Juan Manuel Cuerda Muñoz, Cristina Hiedra and Marcos García Rodriguez (INTA, Spain); Anya Forestell, Abdulhameed Yunusa and Hamideh Kerdegari (Indra Deimos Space UK LTD, United Kingdom (Great Britain)); Giorgia Gobbi (Indra Deimos Space, Spain); Daniel Dutra (Indra Deimos Space UK LTD, United Kingdom (Great Britain)); Natacha Fairburn (Indra Deimos UK LTD, United Kingdom (Great Britain)); Rohaan Ahmed (Indra Deimos Space, United Kingdom (Great Britain)); Andrei-Lucian Alexe, Bogdan-Gabriel Prisecariu and Rares - Alexandru Ilie (Indra Deimos SRL, Romania); Roberto Del Prete and Nicolas Longépé (European Space Agency, France)

Towards end-to-end SAR raw data handling: RCMC data compression using Hyper-prior autoencoders. 486
Cédric Léonard (Technical University of Munich and German Aerospace Center (DLR)); Roberto Del Prete (ESA -lab, European Space Research Institute (ESRIN), Italy); Fran cescopaolo Sica (Department Aerospace Engineering, University of the Bundeswehr Munich, Neubiberg, Germany)

Advanced on-board processing of SAR data for next-generation Cognitive RADAR payloads: activities and results from the CLICK project 492
Lucia Amorosi (Thales Alenia Space Italy, Italy & DONI, Italy); Federica Biancucci, Carlo Ciancarelli and Vincenzo De Marco (Thales Alenia Space Italy, Italy); Gaetano Pastore (Thales Alenia Space Italia, Italy); Max Ghiglione (European Space Agency (ESA) the Netherlands, The Netherlands); Stefano Paterna (European Space Agency (ESA), The Netherlands)

ZeroFlood: Flood Hazard Mapping from Single-Modality SAR Using Geo-Foundation Models 497
Hyeongkyun Kim (German Aerospace Center (DLR), Germany); Orestis Oikonomou (ETH Zürich, Switzerland & ETH AI Center, Switzerland)

Hidden Scars in Green: Label-Efficient Mapping of Artisanal Mining in Forested Areas with Generative Foundation Models 505
Can Michael Hucko (İstanbul Technical University, Turkey); Ridvan Salih Kuzu (German Aerospace Center, Germany); Stella Ofori-Ampofo (Technical University of Munich, Germany); Corneliu Octavian Dumitru (German Aerospace Center (DLR), Germany); Nicolas Longépé (European Space Agency, France)

Bridging Vision and Language for SAR Imagery 513
Nicolas Trouvé (ONERA, University Paris-Saclay (France), France); Solene Debuysère (ONERA, France); Nathan Letheule (University of Paris-Saclay & ONERA, France); Elise Colin (DTIS-Onera, University of Paris Saclay, France); Luc Vignaud (ONERA, University of Paris-Saclay, France); Olivier Lévêque (ONERA, France)

Evolution and Trends of SAR Digital Backends and Related Key Technology. . . 519
Malte Esslinger (Airbus Defence and Space GmbH, Germany); Pasquale Pepe (Thales Alenia Space Italia, Italy); Ricardo Pinto (European Space Research and Technology Centre, The Netherlands)

Advancing National EO Capabilities: The Axis1.2 SAR Space Segment by ICEYE 525
Chrysa Oikonomou (ICEYE, Finland)

COSMO-SkyMed Mission Outline 529
Axel Oddone (E-GEOS, Italy); Giuseppe Catalano (Italian Ministry of Defence, Italy); Silvia Natalucci (ASI, Italy); Maria Virelli, Antonio Montuori and Francesco Tataranni (Italian Space Agency (ASI), Italy); Marco Di Clemente (Agenzia Spaziale Italiana, Italy); Daniele Santese, Rino Lorusso, Angelo Daniele Ciminelli and Vincenzo Martucci (Italian Space Agency (ASI), Italy); Rita Carpentiero and Luigi De Angelis (Italian Space Agency, Italy)

Assessment of the BIOMASS radiometric stability using Permanent Scatterers 535
Marco Manzoni (Politecnico di Milano, Italy); Francesco Banda (Aresys, Italy); Stefano Tebaldini (Politecnico di Milano, Italy)

CSG Expansion to 4 Satellites - Spacecraft design 540
Silvia Occhigrossi (Thales Alenia Space Italia, Italy); Fabrizio Gennari (Thales Alenia Space, Italy); Gerardo Spera and Anna Croce (Thales Alenia Space Italia, Italy); Giancarlo Amedeo Tenore and Stefano Fabbri (Thales Alenia Space, Italy); Michela Veredice (Thales Alenia Space Italia, Italy); Saverio Borchi (Thales Alenia Space, Italy); Simone Dell'Agnello (Laboratori Nazionale di Frascati (LNF) of Istituto Nazionale di Fisica Nucleare (INFN), Italy); Mattia Tibuzzi (Laboratori Nazionale di Frascati (LNF) of Istituto Nazionale di Fisica, Italy); Lorenzo Salvatori (Laboratori Nazionale di Frascati (LNF) of Istituto Nazionale di Fisica Nucleare, Italy); Marco Di Clemente (Agenzia Spaziale Italiana, Italy); Emanuele Tedeschi (Ministero Della Difesa, Italy)

Multi-Sensor InSAR and BIM Fusion for Post-Mining Deformation Monitoring in Urban Areas 544
Chia-Hsiang Yang and Carsten Stemmler (EFTAS Remote Sensing Transfer of Technology GmbH, Germany); Nils Wolf (EFTAS Fernerkundung Technologietransfer GmbH, Germany); Marius Koppe and Tobias Rudolph (Research Centre of Post-Mining, Technische Hochschule Georg Agricola, Germany); Andreas Müterthies (EFTAS Remote Sensing Transfer of Technology GmbH, Germany)

CSG Espansione a 4 Satelliti - SAR instrument design and performance. 550
Michela Veredice, Marta Tecla Falconi and Raffaele Carnesecchi (Thales Alenia Space Italia, Italy); Massimiliano Imparato (Thales Alenia Space Italy, Italy); Andrea Di Domenico and Alessandro Santoni (Thales Alenia Space Italia, Italy); Antonio Montuori, Francesco Tataranni, Maria Virelli, Rino Lorusso and Claudia Facchinetti (Italian Space Agency (ASI), Italy); Giuseppe Catalano (Italian Ministry of Defence, Italy)

CSG squinted acquisitions and theatre performance 555
Diego Calabrese (Thales Alenia Space Italia, Italy); Francesco Tataranni, Antonio Montuori, Rino Lorusso and Claudia Facchinetti (Italian SpacevAgency (ASI), Italy); Giuseppe Catalano (Italian)

CSG innovative capability deployed through the third and fourth Satellite 561
Diego Calabrese (Thales Alenia Space Italia, Italy); Claudia Facchinetti (Italian Space Agency (ASI), Italy); Marco Di Clemente (Agenzia Spaziale Italiana, Italy); Francesco Longo (ASI, Italy); Emanuele Tedeschi (Ministero Della Difesa, Italy)

Estimating Ship Velocity with Stereoradargrammetry in Long-baseline Bistatic SAR 565
Systems: Verification on Wadden SAR Dataset Antonio Gigantino, Riccardo Francesco Magnante and Alfredo Renga (University of Naples Federico II, Italy)

A Compressed Sensing-Based Algorithm for GNSS-SAR. 571
Peng Zhao, Pengbo Wang, Tao Tang and Zhirong Men (Beihang University, China)

Ship Behavior Judgment Based on Spaceborne SAR Images 576
Yongchen Pan (Beihang University, China); HongCheng Zeng and Wei Yang (BeiHang University, China); Xinwei An, Yamin Wang, Haochuan Wang and Siyuan Sun (Beihang University, China); Jie Chen (School of Electronics and Information Engineering, Beihang University, China)

SAR-Guided Temporal Interpolation of Optical Satellite Images via Spatio-Temporal Graph egularization 582
Ryosuke Isono (Institute of Science Tokyo, Japan); Ryuhei Hamaguchi (National Institute of Advanced Industrial Science and Technology (AIST), Japan); Shunsuke Ono (Tokyo Institute of Technology, Japan)

On-board Synthetic Aperture Radar Processing: From Focusing to AI-based Product Generation 588
Dominik Günzel, Srikanth Mandapati, Stefan Wiehle, Ulrich Balss and Helko Breit (German Aerospace Center (DLR), Germany)

An Eigendecomposition Based Matched Filter and Feature Extraction for Marine Targets with Compact-Polarimetric (CP) SAR. 594
Mamoon Rashid (Defence Research and Development Canada, Canada & Carleton University, Canada); Christoph H. Gierull (DRDC Ottawa, Canada); Sreeraman Rajan (Carleton University, Canada)

Super-High Resolution Ocean Surface Wind Retrieval from Capella SAR imagery 598
Yuriy Goncharenko and Gordon Farquharson (Capella Space, USA)

Maya4: a Novel Large-Scale Multi-Level SAR Representation Dataset for Machine Learning ***602***
Roberto Del Prete and Gabriele Daga (European Space Agency, France); Cédric Léonard (DLR, Deutsche Zentrum Fuer Luft- Und Raumfahr, Germany & TUM, Technical University of Munich, Germany); Georgia Channing (Hugging Face, France); Nicolas

SAR Maritime Target Robust Detection Model in Range-Doppler Domain: Initial results ***608***
Yiwen Wang, Zhongyuan Ji, Deshui Yu and Hui Bi (Nanjing University of Aeronautics and stronautics, China) Ministry of Defence, Italy))

ROSE-L Digital Back-end Design Overview and Development Status ***614***
George Marsden (Airbus Defence and Space Ltd, United Kingdom); Manu Muhiyudin (Airbus Defence and Space Ltd, United Kingdom (Great Britain)); Paul D Jackson (Airbus Defense and Space Ltd, Germany); Malte Esslinger (Airbus Defence and Space GmbH, Germany); Friedhelm Rostan (Airbus DS GmbH, Germany)

T/R Module Pre-Development for Next Generation High-End Spaceborne SAR nstruments ***620***
Andreas Fleckenstein, Ralf Rieger and Markus Adolph (HENSOLDT Sensors GmbH, Germany); Sebastian Ruess (Airbus Defence and Space GmbH, Germany)

Towards Activity Based Intelligence (ABI) Using SAR imagery - Initial Results. . . ***624***
Alexander E. Hagelberg (Swedish Defence Research Agency (FOI), Sweden); Thomas K Sjögren (Swedish Defence Research Agency, Sweden)

On-Board Processing and Data Compression Techniques for VISAR, the Interferometric SAR Instrument in the VERITAS mission ***630***
Eva Peral (Jet Propulsion Laboratory, USA); Scott Hensley (Jet Propulsion Laboratory & Radar Science and Engineering Section, USA); Joel Amao-Oliva, Pau Prats-Iraola, Andreas Reigber and Marwan Younis (German Aerospace Center (DLR), Germany)

Light SAR Digital Processor „LISARD“ Project with Italian Space Agency ***636***
Ruben Berteletti and Simone Mancon (Aresys Srl, Italy); Paolo Falcone (Aresys srl, Italy); Letizia Lubrano (Aresys Srl, Italy); Giorgia Guerrisi and Domenico Barretta (University of Rome Tor Vergata, Italy); Fabio Del Frate (Università degli Studi di Roma, Italy); Giuliano Ranuzzi (ASI, Italy)

IRIDE-NIMBUS SAR Satellite Constellation ***642***
Manuela Di Salvo (Thales Alenia Space Rome, Italy); Andrea Torre (Thales Alenia Space, Italy); Jacopo Tiberi (THALES ALENIA SPACE ITALIA S.p.A., Italy)

Analysis and Demonstration of Analog SAR Signals on an Optical Carrier for Enabling Inter-satellite Links ***646***
Josef Ydreborg, Lucas Leonardo Lamberti and Sigurd Huber (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

Joint SAR Image Reconstruction and Coherent Change Detection via Projected Multi-Agent Consensus Equilibrium ***652***
Yizhe Fan, Xinyi Ye and Zirui Ma (Aerospace Information Research Institute, Chinese Academy of Sciences, China & University of Chinese Academy of Sciences, China); Bingchen Zhang (University of Chinese Academy of Sciences, China); YiRong Wu (National Key Laboratory of Microwave Imaging Technology, China)

Joint Optimization of Transmit Waveform and Receive Filter for RFI Mitigation in SAR-GMTI ***658***
Bin Hu, Shijian Shen and Yu Zheng (Nanjing Research Institute of Electronics Technology, China); Zhiyong Lei (Nanjing Research Institute of Electronic Institute, China)

SwitchSAR: A Novel SAR Mode for Low NESZ Stripmap Imaging ***662***
Michelangelo Villano (German Aerospace Center (DLR), Germany)

On the Equalization of F-Scan SAR Imaging Performance ***668***
João Pedro Turchetti Ribeiro, Thomas Kraus and Markus Bachmann (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany); Alberto Moreira (German Aerospace Center (DLR), Germany)

Cryo2S1: Estimating Sea Ice Thickness in Sentinel-1 SAR Imagery Using Deep Learning, CryoSat-2 and Hydrostatic Equilibrium ***674***
Andreas Stokholm (Technical University of Denmark, Denmark); Jack Christopher Landy (UiT The Arctic University of Norway, Norway); Roberto Saldo and Renée Mie Fredensborg Hansen (Technical University of Denmark, Denmark); Tore Wulf (Danish Meteorological Institute, Denmark); Nicolas Longépé (European Space Agency, France); Sine Munk Hvidegaard (Technical University of Denmark, Denmark)

Concept and Performance of a Stripmap-F-STEC Mode to Image Wide Swaths at High Resolution with the Novel StriX Small Satellite ***680***
Federica Bordoni (German Aerospace Center (DLR), Germany); Dominik Thois (German Aerospace Centre (DLR), Germany); Marwan Younis (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany); Alberto Moreira (German Aerospace Center (DLR), Germany); Naoto Onodera (Synspective, Japan); Gerald Baier (Synspective Inc., Japan); Mauro Mariotti d'Alessandro (Synspective Inc., unknown); Budhaditya Pyne (Synspective Inc. & Japan Aerospace Exploration Agency, Japan); Stefan Chelariu and Toshihiro Obata (Synspective, Japan)

Examining the Feasibility of MEO-LEO/VLEO Mixed-Orbit SAR Constellation for the Consistent Monitoring of the Earth ***684***
Jeongbae Kim and Jaebaek Jang (Yonsei University, Korea (South)); Yunha Jung (Yonsei University, Korea (South), Korea (South)); Tae-Yong Park (STEPLab, Korea (South)); Hyun-Ung OH (Korea Aerospace University and STEP Lab. Ltd., Korea (South)); Min-Ho Ka (Yonsei University, Korea (South))

Digital Beamforming Imaging Techniques for a Low Orbit Synthetic Aperture Radar Instruments ***689***
Marwan Younis, Fairouz Stambouli, Mariantonietta Zonno and Sigurd Huber (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany); Koen Mouthaan (NUS, Singapore)

Harmony SAR Instrument Overview and Performance ***695***
Davide Maria Perfetto (Thales Alenia Space Italia S.p.A., Italy); Daniele Mapelli (ARESYS, Italy); Andrea Olanda (Thales Alenia Space - Italia, Italy); Tiziano Cordischi (Thales Alenia Space Italia, Italy); Francesca Temussi (Thales Alenia Space Italia S.p.A., Italy); Simone Gabrielli, Katarina Jesswein and Alexander Stark (OHB System AG, Germany); Florence Hélière (European Space Agency ESTEC, The Netherlands); Daniele Petrolati (ESA ESTEC, European Space Agency, The Netherlands); Ernesto Imbembo (European Space Agency, The Netherlands)

Polarimetric StarSAR-X System Design ***701***
Adriano Meta and Riccardo Albi (MetaSensing, Italy); Julien Marini (MetaSensing Italia, Italy); Ivan Troisi (MetaSensing, Italy)

Harmony SAR Instrument Architecture 706
Davide Maria Perfetto (Thales Alenia Space Italia S.p.A., Italy); Andrea Olanda (Thales Alenia Space - Italia, Italy); Tiziano Cordischi (Thales Alenia Space Italia, Italy); Francesca Temussi (Thales Alenia Space Italia S.p.A., Italy); Paolo Campana (ThalesAleniaSpace-Italia, Italy); Danilo Fortini, Nunzio Torto, Stefano Paolucci, Gabriel Adrian Mihu and Francesco Barletta (Thales Alenia Space Italia, Italy); Emanuele Carlà, Emanuele Meloni and Lorenzo Antonini (Systems Development & Support, Italy); Simone Gabrielli, Katarina Jesswein and Alexander Stark (OHB System AG, Germany); Florence Hélière (European Space Agency ESTEC, The Netherlands); Daniele Petrolati (ESA ESTEC, European Space Agency, The Netherlands); Ernesto Imbembo (European Space Agency, The Netherlands)

Prior Information Based D-TomoSAR Point, Cloud Optimization for the Large-scale Urban Area: Initial Result. 711
Shuang Jin, Hui Bi, Linfeng Liu, Yuan Zhong and Jingjing Zhang (Nanjing University of Aeronautics and Astronautics, China)

An Enhanced Range Split-Spectrum Method for Ionospheric Phase Contribution Estimation for DInSAR Analysis. 716
Marianna Franzese (University of Naples Federico II, Italy & IREA-CNR, Italy); Claudio De Luca (IREACNR, Italy); Antonio De Maio (University of Naples „Federico II“, Italy); Riccardo Lanari (IREA-CNR, Italy)

Harmony Fine Time Synchronization Algorithm: Simulation Test Campaign Results 721
Daniele Mapelli (ARESYS, Italy); Davide Maria Perfetto (Thales Alenia Space Italia S.p.A., Italy); Davide Giudici (Aresys srl, Italy); Andrea Olanda (Thales Alenia Space - Italia, Italy); Francesca Temussi (Thales Alenia Space Italia S.p.A., Italy); Paolo Falcone (Aresys srl, Italy); Simone Gabrielli, Katarina Jesswein and Alexander Stark (OHB System AG, Germany); Florence Hélière (European Space Agency ESTEC, The Netherlands); Daniele Petrolati (ESA ESTEC, European Space Agency, The Netherlands); Ernesto Imbembo (European Space Agency, The Netherlands)

On the Definition of in/out-of-band Harmony SAR Instrument Susceptibility. . . . 725
Davide Maria Perfetto (Thales Alenia Space Italia S.p.A., Italy); Anna Di Fiore and Emiliano Scione (Thales Alenia Space Italia, Italy); Andrea Olanda (Thales Alenia Space - Italia, Italy); Francesca Temussi (Thales Alenia Space Italia S.p.A., Italy); Simone Gabrielli, Katarina Jesswein and Alexander Stark (OHB System AG, Germany); Florence Hélière (European Space Agency ESTEC, The Netherlands); Daniele Petrolati (ESA ESTEC, European Space Agency, The Netherlands); Ernesto Imbembo (European Space Agency, The Netherlands)

Enhancement and Mitigation of Radio Frequency Interference in P-band Range-Compressed Airborne SAR Data 731
Alessandro Di Vincenzo (Università Degli Studi di Napoli Parthenope & Istituto per Il Rilevamento Elettromagnetico dell‘Ambiente IREA CNR, Italy); Rolf Scheiber (German Aerospace Center (DLR), Germany)

Harmony breadboard E2E simulator: L1a performance validation. 735
Tatiana Martelli (Aresys, Italy); Daniele Mapelli (ARESYS, Italy); Federica Passerini (Aresys, Italy); Davide Maria Perfetto (Thales Alenia Space Italia S.p.A., Italy); Simone Gabrielli, Katarina Jesswein and Alexander Stark (OHB System AG, Germany); Pedro Jurado Lozano (European Space Agency, The Netherlands); Florence Hélière (European Space Agency ESTEC, The Netherlands); Daniele Petrolati (ESA ESTEC, European Space Agency, The Netherlands); Ernesto Imbembo (European Space Agency, The Netherlands)

Does Sentinel-1 Super-Resolution Improve Building Semantic Segmentation?. . 740
Juan Francisco Amieva (Tracasa Instrumental, Spain & Universidad Pública de Navarra, Spain); Christian Ayala (Tracasa Instrumental, Spain); Mikel Galar (Public University of Navarre, Spain)

A COSMO-SkyMed Dataset For Maritime Monitoring. 746
Andrea Galario, Maria Daniela Graziano, Andrea Mazzeo, Angela Carmen Cristofano, Margareth Di Vaia and Alfredo Renga (University of Naples Federico II, Italy); Ravellino Fabiana (Euro.soft S.r.l, University of Naples Federico II, Italy); Valerio Pisacane (Eurosoft SRL, Italy); Aurigemma Renato, Marco Raimondo Focone and Andrea Lo Russo (Euro.soft SRL, Italy); Angela Volpe (Agenzia Spaziale Italiana, Italy); Deodato Tapete (Italian Space Agency, Italy); Maria Virelli (Italian Space Agency (ASI), Italy)

Insights from scientific applications of COSMO- SkyMed Second Generation data for future downstream. 751
Deodato Tapete (Italian Space Agency, Italy); Antonio Montuori (Italian Space Agency (ASI), Italy); Giovanni Paolo Blasone (Italian Space Agency, Italy); Matteo Picchiani and Maria Virelli (Italian Space Agency (ASI), Italy); Simona Zoffoli Zoffoli (Italian Space Agency, Italy); Silvia Natalucci (ASI, Italy); Claudia Facchinetti (Italian Space Agency (ASI), Italy); Vincenzo Pulcino (Italian Space Agency, Italy); Francesco Longo (ASI, Italy); Diego Calabrese (Thales Alenia Space Italia, Italy)

SAR mission and payload for the Polish. 757
Camila Programme Maciej Klemm (Eycore, Poland)

Surface Current and Wind Field Retrieval over Lakes: the Contribution of Very High-Resolution Imaging with COSMO-SkyMed 759
Andrea Petrossi (Italian Council of Research (CNR), Italy); Virginia Zamparelli (IREA-CNR, Italy); Simona Verde (CNR-IREA, Italy); Marina Amadori, Francesca De Santi and Mariano Bresciani (CNR, Italy); Giacomo De Carolis (National Research Council of Italy, Italy); Claudia Giardino (CNR, Italy); Lorenzo Giovannini, Sebastiano Piccolroaz and Marco Toffolon (Università di Trento, Italy); Marco Papetti and Giulia Valerio (Università di Brescia, Italy); Gianfranco Fornaro (CNR-IREA, Italy)

National-Scale Full-Resolution P-SBAS Processing of Large CSK/CSG and SAOCOM-1 SAR Datasets for the Built-Up Environment Displacements Retrieval. 764
Pasquale Striano (IREA-CNR, Italy); Manuela Bonano (IREA CNR, Italy); Francesco Casu (Istituto per il Rilevamento Elettromagnetico dell'Ambiente, Italy); Sabatino Buonanno and Claudio De Luca (IREA-CNR, Italy); Adele Fusco (CNR-IREA & University of Sannio, Italy); Michele Manunta (CNRIREA, Italy); Mario Fernando Monterroso (IREA CNR, Italy); Paquale Noli and Giovanni Onorato (IREACNR, Italy); Yenni Lorena Belen Roa (Istituto per il Rilevamento Elettromagnetico dell'Ambiente (IREA), Italy); Yasir Muhammad (Università Degli Studi di Napoli Parthenope, Italy); Ivana Zinno (IREA, CNR, Italy); Riccardo Lanari (IREA-CNR, Italy)

AI-based Building Footprint Segmentation from COSMO-SkyMed SAR Imagery: A Case Study over Southern Italy 769
Pegah Moradpour (University of Pavia, Italy); Babak Memar (Sapienza University di Roma, Italy); Paolo Gamba (Università degli Studi di Pavia, Italy)

Use of NISAR data for studying ecosystems - early results 775
Paul Siqueira (University of Massachusetts, USA); Bruce Chapman (Jet Propulsion Laboratory, California Institute of Technology, USA); Josef Kellndorfer (Earth Big Data Inc, USA); Kyle Mcdonald, Sassan Saatchi and Alexandra Christensen (Jet Propulsion Laboratory, USA); KC Cushman (Oak Ridge National Laboratory, USA); Brandi Downs (Jet Propulsion Laboratory, USA); Jessica Martinez (University of Massachusetts, USA); Naiara Pinto, Erika Podest and Naveen Ramachandran (Jet Propulsion Laboratory, USA); Leandra Sethares (Earth Big Data, LLC, USA); Narayanarao Bhogapurapu (Indian Institute of Technology Bombay, India)

Joint tropospheric and ionospheric impact on Near-Zero Inclination GEO-SAR and optimization of interferometric performances 779
Matteo Monti, Alessandro Gatti and Andrea Monti-Guarnieri (Politecnico di Milano, Italy); Martina Lagasio (Cima Research Foundation, Italy)

Towards a tomographic profiling of snow and vegetation using bistatic KAPRI . 785
Esther Mas Sanz (ETH Zurich, Switzerland); Othmar Frey (ETH Zurich & Gamma Remote Sensing, Switzerland); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

3-D Double-Bounce Mapping Using MIMO-SAR Tomography 791
Olena Sarabakha (German Aerospace Center (DLR), Germany); Tobias Rommel (German Aerospace Centre (DLR), Germany); Gerhard Krieger (DLR, Germany); Michelangelo Villano (German Aerospace Center (DLR), Germany)

UAV-based bistatic SAR focusing and SAR interferometry with the Gamma L-Band SAR systems 796
Othmar Frey (ETH Zurich & Gamma Remote Sensing, Switzerland); Charles Werner (GAMMA Remote Sensing Research and Consulting AG, Switzerland); Silvan Leinss and Tobias Batt (Gamma Remote Sensing AG, Switzerland); Timothy Dixon and Taha Sadeghi Chorsi (University of South Florida, USA); Elias J. Deeb, Adam L. Lewinter, Dominic L Filiano and Cameron J Wagner (Cold Regions Research and Engineering Laboratory (CRREL), USA)

Conceptualization and First Results of an Airborne S-Band SAR-System with Single-Pass Tomography Capabilities 802
Maximilian Eitel (University of the Bundeswehr Munich, Germany); Martin Russ (Bundeswehr University Munich, Germany); Othmar Frey (ETH Zurich & Gamma Remote Sensing, Switzerland); Francescopaolo Sica (University of the Bundeswehr Munich (UniBw), Germany); Michael Schmitt (University of the Bundeswehr Munich, Germany)

Fast Parametric ISAR Autofocussing Using Quantum Search 807
Benjamin Rodrigues de Miranda (Deutsches Zentrum Für Luft- Und Raumfahrt, Germany & Hensoldt, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Sigurd Huber (German Aerospace Center (DLR), Germany); Tobias Brosch (Hensoldt Sensors GmbH, Ulm, Germany); Gerhard Krieger (DLR, Germany)

Correction of Residual Range Deviation in Very High Resolution SAR Images . . 813
Ozan Dogan (ICEYE OY, The Netherlands); Vladimir Ignatenko (ICEYE, Finland); Andrea Radius (ICEYE OY, Finland); Risto Vehmas Risto Vehmas (ICEYE Oy, Finland); Matthew Nottingham (ICEYE, Finland); Leszek Lamentowski (ICEYE Oy, Poland); Jan Krecke (ICEYE OY, Italy); Darren Muff (ICEYE, Finland)

Multi-Sensor Adaptation of Foundation Generative Models for Worldwide SAR Images Generation ***819***
Solene Debuysère (ONERA, France); Nicolas Trouvé (Onera, France); Nathan Letheule (University of Paris-Saclay & ONERA, France); Elise Colin (DTISOnera, University of Paris Saclay, France)

Advanced Experimental Analyses of Forest Short-term Decorrelation for Tomography with Tandem Satellites ***825***
Giulia Buttitta and Fabrizio Lombardini (University of Pisa, Italy)

First Tomographic SAR Imaging Experiment of Fucheng-1/Shenqi SAR Satellite via Veryhigh Resolution Complex Image Dataset. ***828***
Yuan Zhong, Hui Bi, Linfeng Liu, Chunhui Li, Shuang Jin and Jingjing Zhang (Nanjing University of Aeronautics and Astronautics, China)

Analytical Calculation of Steering Laws in Multistatic SAR for Zero Doppler or Full Beam Overlap Acquisitions ***833***
Josef Hermann Martin Mittermayer (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

Bistatic SAR with Spaceborne Transmitters and Airborne Receivers: The Case of Very Large Bistatic Angles ***839***
Nertjana Ustalli and Maxwell Nogueira Peixoto (German Aerospace Center (DLR), Germany); Francesca Scala (German Aerospace Center DLR, Germany); Gerhard Krieger (DLR, Germany); Tim Peikert (HENSOLDT Sensors GmbH, Germany); Christoph Fischer (Hensoldt Sensors GmbH, Germany); Tobias Chaloun (Hensoldt Sensors GmbH, Germany & University of UIm, Institute of Microwave Engineering, Germany); Michelangelo Villano (German Aerospace Center (DLR), Germany)

Capella InSAR Constellation Performance: One Year of Mid-Inclination Operations and Validation. ***845***
Craig Stringham, Scott Staniewicz, Shaunak De and Gordon Farquharson (Capella Space, USA)

Imaging performance of the CSG/PLT-1 Spaceborne Bistatic SAR System in Phase-2 Farah ***851***
Rasheed Abbasi (University of Parthenope Napoli Italy, Italy); Alejandro Arias-Gallegos (University of Naples Federico II, Italy); Gerardo Di Martino (Università di Napoli Federico II, Italy); Alessio Di Simone (University of Naples Federico II, Italy); Antonio Iodice (Università di Napoli Federico II, Italy); Daniele Riccio (University of Naples Federico II, Italy); Giuseppe Ruello (Università di Napoli Federico II, Italy); Giovanni Paolo Blasone, Deodato Tapete and Simona Zoffoli Zoffoli (Italian Space Agency, Italy)

The Bistatic Airborne SAR System DuoLIM ***856***
Andreas Reigber, Eric Schreiber and Markus Limbach (German Aerospace Center (DLR), Germany); Tobias Rommel (German Aerospace Centre (DLR), Germany); Diego Lorente (German Aerospace Center (DLR), Germany); Stephan Dunkel (German Aerospace Center (DLR), Germany & German Aerospace Center Oberpfaffenhofen, HR, Germany); Alberto Moreira (German Aerospace Center (DLR), Germany)

An improved numerical approach for frequency domain processing of bistatic SAR data: The Harmony case. ***860***
Giorgio Porpiglia (Aresys, Italy); Daniele Mapelli (ARESYS, Italy); Tatiana Martelli and Riccardo Piantanida (Aresys, Italy); Adriano Persico (ARESYS, Italy); Pietro Guccione (Aresys, Italy); Davide Giudici (Aresys srl, Italy)

Architecture of a P-Band, GaN based Power Amplifier Subsystem for SAR application ***866***
Fabrizio Marrese, Elia Pancini Pancini, Gianluigi Cassani and Alessandro Piana (Leonardo Spa, Italy)

Sentinel-1 SAR Repeat-Pass Interferometry for Early Indication of Landfast Ice Breakup Sites: A Case Study in the Canadian Arctic ***873***
hristoph Schnupfhagn and Anja Frost (German Aerospace Center (DLR), Germany)

ROSE-L TRM Development Status and Multipactor and Corona Verification ***878***
Antonio Bauleo (Thales Alenia Space Italia, Italy); Massimiliano Imparato, Benedetto Pasciuto and Daniele Prosperini (Thales Alenia Space Italy, Italy)

Low-Altitude TomoSAR Imaging Using a UAV-borne Radar and Large Angular Apertures ***882***
Christina Bonfert, Julian Kanz, Alexander Grathwohl and Marius Widmann (Ulm University, Germany); Christian Waldschmidt (University of Ulm, Germany)

Along-Track Interferometry experiment with Sentinel-1C&D ***888***
Mario M Azcueta (European Space Agency / ESTEC, The Netherlands); Christoph H. Gierull (DRDC Ottawa, Canada); Dominik Richter (German Aerospace Center, Germany); Mamoon Rashid (Defence Research and Development Canada,Canada & Carleton University, Canada); Dirk Geudtner (European Space Agency, France);Ramon Torres (European Space Agency & ESTEC, The Netherlands)

Real-Data-Driven Deep Learning Method for SAR Image Super-Resolution ***894***
Ronghua Guo (Xidian University, China); Matteo Ciotola (University of Naples Federico II, Italy); Giampaolo Ferraioli (Università di Napoli Parthenope, Italy); Gianfranco Fornaro (CNR-IREA, Italy); Vito Pascazio (Università di Napoli Parthenope, Italy); Giuseppe Scarpa (University Parthenope of Napoli, Italy); Gilda Schirinzi (Università di Napoli Parthenope, Italy); Sergio Vitale (University of Naples Parthenope, Italy)

C-Band Front-End Receive Modules for the Harmony SAR Instrument. ***900***
Massimiliano Imparato, Mauro Frediani, Alessandro Barigelli, Fabiano Boccolini and Antonella Lombardo (Thales Alenia Space Italy, Italy); Ernesto Imbembo (European Space Agency, The Netherlands); David Cuadrado-Calle and Antonino Tobia (European Space Agency ESTEC, The Netherlands); Daniele Petrolati (ESA ESTEC, European Space Agency, The Netherlands); Florence Hélière (European Space Agency ESTEC, The Netherlands)

Development of Interferometric SAR Altimeter for Sentinel 3 Next Generation Topography Mission ***905***
Simone Meschino (ESA, The Netherlands); Demeestere Franck and Marc Deschaux-Beaume (Thales Alenia Space, France); Jean-Damien Desjonqueres, Alejandro Egido and Jesus Rancano Fernandez (ESA, The Netherlands); Alexandre Houpert and Laurent Phalippou (Thales Alenia Space, France); Pierrik Vuilleumier (ESA, The Netherlands)

Multistatic Distributed Radar Synchronization for Radar Tomography of 3D Vegetation Structure ***908***
Eric A Loria (Jet Propulsion Laboratory and California Institute of Technology, USA); Robert eau-champ, Marco Lavalle, Jack Bush, William Bertiger and Kameron Larsen (Jet Propulsion Laboratory,

Deep Learning for Speckle Removal in Dual-Polarimetric SAR Images 912
Alejandro Mestre-Quereda, Juan Manuel Lopez-Sanchez and Victor Cazcarra-Bes (University of Alicante, Spain); Juan Cicuendez Perez (HisdesatServicios Estratégicos, S.A., Spain)

AI4TDX: How can AI leverage the exploitation of TanDEM-X data to jointly benefit science and shape future mission concepts? 918
Paola Rizzoli and Daniel Carcereri (German Aerospace Center (DLR), Germany); Alexandre Becker Campos (Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Germany & German Aerospace Center (DLR), Germany); Nicola Gollin (German Aerospace Center, Germany); Luca Dell'Amore (German Aerospace Center (DLR), Germany); Federico Ghio (German Aerospace Center (DLR), Germany & Università di Trento, Italy); Jose-Luis Bueso-Bello, Carolina González and Michele Martone (German Aerospace Center (DLR), Germany); Manfred Zink (DLR, Germany)

Beyond MERLIN: A Multi-Scale Self-Supervised Framework for Despeckling . . . 924
Stella Basso-Lacroix (Télécom Paris, France & CNES, France); Thomas Bultingaire (Télécom Paris, France); Loic Denis (Université Jean Monnet, France); Nicolas Gasnier (Centre National d'Etudes Spatiales, France); Damien Desroches (CNES, France); Florence Tupin (Télécom ParisTech, France)

Operational Influence of Radio Frequency Interference on Airborne Multi-mission Surveillance Radar PrecISR 930
Alexander Dallinger, Falk Ringel and Tim Peikert (HENSOLDT Sensors GmbH, Germany); Lizette Lorraine Tovar Torres (HENSOLDT Sensors GmbH, Germany & Ulm University, Germany); Jörg H. Hippler (Hensoldt, Germany); Dejan Nikolic (Hensoldt Sensors GmbH, Germany); Kosmas Weidmann (HENSOLDT Sensors GmbH, Germany)

Quantum-Inspired Robust and Scalable SAR Object Classification 936
Maximilian R. Scharf and Marco Trenti (Tensor AI Solutions GmbH, Germany); Felix Bock, Padraig Davidson and Tobias Brosch (Hensoldt Sensors GmbH, Ulm, Germany); Benjamin Rodrigues de Miranda (Deutsches Zentrum Für Luft- Und Raumfahrt, Germany & Hensoldt, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Sigurd Huber (German Aerospace Center (DLR), Germany); Timo Felser (Tensor AI Solutions GmbH, Germany)

Adaptive Interference Removal in InSAR Application 942
Parivash Lumsdon (Airbus Defence and Space, Germany); Elif Özcakir and Wolfgang Koppe (Airbus Defence and Space GmbH, Germany); Jürgen Janoth (Airbus Defence and Space, Germany); Matteo Emanuelli and Jérôme Bonvin (Airbus Defence and Space GmbH, Germany)

The NASA-ISRO Synthetic Aperture Radar 946
Mission: A Post-launch Status Update Paul A. Rosen (Jet Propulsion Laboratory, USA); Rashmi Sharma (Indian Space Research Organisation, India); Marco Lavalle (Jet Propulsion Laboratory, California Institute of Technology, USA); Deepak Putrevu (Indian Space Research Organization (ISRO), India); Adrian Borsa (UC San Diego, USA); Alex Gardner and Alexandra Christensen (Jet Propulsion Laboratory, USA); Anup Kumar Das (Indian Space Research Organisation, USA); Benjamin Holt (JPL/NASA, USA); Bernd Scheuchl (University of California, Irvine, USA); Bruce Chapman (Jet Propulsion Laboratory, California Institute of Technology, USA); Catalina Taglialatela (Jet Propulsion Laboratory, USA); Cathleen Jones (JPL/NASA, USA); Chaitra Rao (Indian Space Research Organisation, USA); Durga Rao (Indian Space Research Organisation, India); Ekaterina Tymofyeyeva (NASA Jet Propulsion Laboratory, USA); Eric Rignot (University of California, Irvine, USA); Erika Podest (Jet Propulsion Laboratory, USA); Franz J Meyer (University of Alaska Fairbanks, USA); Gerald W Bawden (NASA, USA); Heresh Fattahi (Jet Propulsion Laboratory, USA); Howard Zebker (Stanford University, USA); Ian R Joughin (Polar Science Center, Applied Physic Lab, University of Washington, USA); Ian Roundhill (Jet Propulsion Laboratory, USA); Jayaprasad P and John Mathew (Indian Space Research Organisation, India); Josef Kellndorfer (Earth Big Data Inc, USA); Joshua R Doubleday (Jet Propulsion Laboratory, USA); K M Sreejith (Indian Space Research

Organisation, India); Kyle Mcdonald (Jet Propulsion Laboratory, USA); Mark Simons (Caltech, USA); Narendra Das (Michigan State University, USA); Neeraj Agarwal (Indian Space Research rganisation, India); Nilesh M. Desai (Space Applications Centre, ISRO, India); Paul Siqueira (University of Massachusetts, USA); Phil Barela (Jet Propulsion Laboratory, USA); Praveen Kumar Gupta (ISRO, India); P Venkat Raju (Indian Space Research Organisation, India); Rajat Bindlish (Goddard Space Flight Center, USA); Richard Forster (University of Utah, USA); Rowena Lohman (Cornell University, USA); Sassan Saatchi (Jet Propulsion Laboratory, USA); Sean Helfrich (National Oceanic and Atmospheric Administration, USA); Seungbum Kim (JPL, USA); Shweta Sharma (Space Applications Centre (ISRO), India); Sushil Kumar Singh (Indian Space Research Organisation, India); Thomas Moline (Jet Propulsion Laboratory, USA); V Manavalan Ramanujam (Space Application Center -ISRO, India)

S-Band SAR on NISAR: Instrument characteristics and results from initial data analysis 950

Nilesh M. Desai (Space Applications Centre, ISRO, India); Rashmi Sharma (Indian Space Research Organisation, India); Cvn Rao (Space Applications Centre (ISRO), India); Debajyoti Dhar (Space Applications Centre ISRO, India); Himanshu Patel (Indian Space Research Organisation (ISRO), India); V Manavalan Ramanujam (Space Application Center -ISRO, India); Deepak Putrevu (Indian Space Research Organization (ISRO), India); Suneela Mishra (Space Applications Centre ISRO, India); Anup Kumar Das (Indian Space Research Organisation, USA); Jalpa B Modi (Space Applications Centre, ISRO, India); Harshita Tolani (Indian Space Research Organization, India); Krishna Murari Agrawal (SAC, India); Praveen Kumar Gupta (ISRO, India); Yogesh Tyagi (SAC, ISRO, India); Mr Raghav Mehra (ISRO, India); Sushil Kumar Singh (Indian Space Research Organisation, India); Ulkesh B Desai (SAC, ISRO, India); SamneetThakur (Space Applications Centre, ISRO, India); Dharmendra Kumar Pandey (Space Applications Centre & Indian Space Research Organization, India); Pragya Arora (PES University, India); K M Sreejith and Neeraj Agarwal (Indian Space Research Organisation, India); Shweta Sharma (Space Applications Centre (ISRO), India); Jayaprasad P (Indian Space Research Organisation, India); Usha Hsv (ISRO, India); Durga Rao (Indian Space Research Organisation, India); Praveen K Thakur (IIRS Dehradun & ISRO, India)

NIMBUS-SAR Constellation: Orbital Design and DInSAR Performance Analysis of the new X-Band Italian IRIDE Mission 956

Michele Manunta (CNR-IREA, Italy); Federica Cotugno (Università degli Studi di Napoli Federico II, Italy); Paolo Berardino (Istituto per il Rilevamento Elettromagnetico dell Ambiente IREA-CNR, Italy); Manuela Bonano (IREA CNR, Italy); Francesco Casu (Istituto per il Rilevamento Elettromagnetico dell'Ambiente, Italy); Gianluca Montuori and Alfredo Renga (University of Naples Federico II, Italy); Riccardo Lanari (IREA-CNR, Italy)

Polarimetric Effects in L-band Interferometric Phase Triplets 960

Serdar Rama and Noelia Romero-Puig (German Aerospace Center (DLR), Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany)

Machine Learning Applied to Moving Target Indication (MTI) in Dual-Channel Raw Synthetic Aperture Radar (SAR) Data. 964

Shen Chiu, Anna Limoges and Katerina Biron (Defence Research and Development Canada (DRDC), Canada)

Assessing the capability of the NASA ISRO Synthetic Aperture Radar (NISAR) mission to measure deformation at a variety of spatiotemporal scales 970

Ekaterina Tymofyeyeva (NASA Jet Propulsion Laboratory, USA); Mark Simons (Caltech, USA); Gerald W Bawden (NASA, USA); Falk Amelung (University of Miami, USA); David Bekaert (Jet Propulsion Laboratory, California Institute of Technology, USA); Adrian Borsa (UC San Diego, USA); Jingyi Chen (University of Texas at Austin, USA); Andrea Donnellan (Purdue University, USA); Kurt

Feigl (University of Wisconsin-Madison, USA); Eric Fielding and Marin Govorcin (Jet Propulsion Laboratory, California Institute of Technology, USA); Bradford Hager (Massachusetts Institute of Technology, USA); Emre Havazli (JPL, USA); Rowena Lohman (Cornell University, USA); Zhong Lu (Southern Methodist Univ, USA); Franz J Meyer (University of Alaska Fairbanks, USA); Matthew Pritchard (Cornell University, USA); Howard Zebker (Stanford University, USA); Robert Zinke and Marco Lavalle (Jet Propulsion Laboratory, California Institute of Technology, USA); Paul A. Rosen (Jet Propulsion Laboratory, USA)

NISAR Interferometric Sensitivity to Biophysical Land Properties 974
Marco Lavalle, Gustavo H. X. Shiroma and Jungkyo Jung (Jet Propulsion Laboratory, California Institute of Technology, USA)

NISAR: A Test case for ESA‘s ROSE-L System Calibration 977
Jens Reimann (German Aerospace Center (DLR), Germany); Paul A. Rosen (Jet Propulsion Laboratory, USA); Marco Schwerdt (German Aerospace Center (DLR), Germany); Manfred Zink (DLR, Germany)

Toward Precise Interference Localization in Bistatic SAR: A Geometry-Enhanced Virtual Baseline Approach. 981
Yifei Liu (Northwest Polytechnical University Xi‘an, China); Mingliang Tao (Northwestern Polytechnical University, China); Yanyang Liu (Shanghai Institute of Satellite Engineering, China); Junli Chen (Shanghai Academy of Spaceflight Technology, China); Ling Wang (Northwestern Polytechnical University, China)

NISAR pointing calibration results. 985
Parikshit Parasher, Samneet Thakur and Krishna Murari Agrawal (Space Applications Centre, ISRO, India); Shubham Gupta (Space Applications Centre, India); V Manavalan Ramanujam (Space pplication Center -ISRO, India); Jalpa B Modi (Space Applications Centre, ISRO, India)

Research on a Two-Layer Network TS-InSAR Method for Bridge Deformation Measurement 990
Zechao Bai, Jingjing Ai, Yanping Wang and Wenjie Shen (North China University of Technology, China)

Validation of NISAR wetland inundation requirements using fully polarimetric L-band airborne SAR data. 994
Bruce Chapman (Jet Propulsion Laboratory, California Institute of Technology, USA); Nancy H French (Michigan Tech Research Institute, USA)

Ground notched SAR tomography: principles and first application to BIOMASS data 997
L. Ferro-Famil, M. Bottani, Y. Huang, F. Salvaterra, F. Banda, and S. Tebaldini
ISAE-SUPAERO, University of Toulouse, France; CESBIO, University of Toulouse, France; Meteo-France, Toulouse, France; DEIB, Politecnico di Milano, Italy; ARESYS, Milan, Italy

The BIOMASS Mission Operational Processors and Early Products Performance. 1003
Muriel Pinheiro (ESA-ESRIN); Giuseppe Jackson (Starion, Italy); Riccardo Piantanida, Federico Boniardi, Francesco Banda, Emanuele Giorgi and Paolo Mazzucchelli (Aresys, Italy); Pau Prats-Iraola (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou and Jun Su Kim (German Aerospace Center, Germany); Antonio Valentino (CS Group for ESA, Bremen, Germany); Michele Caccia (Starion, Italy); Giovanna Palumbo (Serco, Italy); Stefano Tebaldini (Politecnico di Milano, Italy); Klaus Scipal (ESA/ESTEC, The Netherlands); Bjorn Rommen (European Space Agency, ESA/ESTEC, The Netherlands); Cristiano Lopes (ESA-ESRIN, Italy); Clément Albinet (European Space Agency, Italy)

Calibration and Validation Results for Biomass Operational Phase 1009
Andre Barros Cardoso da Silva and Joel Amao-Oliva (German Aerospace Center (DLR), Germany); Jun Su Kim (German Aerospace Center, Germany); Gustavo Daniel Martín-del-Campo-Becerra (German Aerospace Center (DLR), Germany); Felipe Betancourt-Payan (DLR, Germany); Marc Jäger (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany); Pau Prats-Iraola and Rolf Scheiber (German Aerospace Center (DLR), Germany)

A Multi-Channel K-Band UAV-SAR System for 3D Mapping, GMTI, and RFI Analysis 1015
Gabriel Otero Pérez and Emiliano Casalini (University of Zurich, Switzerland); Peter Brotzer (Universiry of Zurich, Switzerland); Elias Mendez Dominguez (University of Zurich & Remote Sensing Laboratories, Switzerland)

Overview of Sentinel-1 Instrument Status, Level-1 Product Performance and Evolutions 1021
Muriel Pinheiro (EAS-ESRIN, Italy); Antonio Valentino (Starion for ESA, Italy); Guillaume Hajduch (CLS Group, Brest, France); Pauline Vincent (Collecte Localisation Satellites CLS, France); Andrea Recchia, Beatrice Mai and Martin Steinisch (Aresys, Italy); Kersten Schmidt, Christoph Gisinger, Helko Breit and Víctor D Navarro Sanchez (German Aerospace Center (DLR), Germany); Ruben Blériot (Apside, France)

Improving noise vectors quality in Sentinel-1C/D Level-1 products 1025
Beatrice Mai, Andrea Recchia, Marco Abatangelo and Chiara Passerini (Aresys, Italy); Guillaume Hajduch (CLS Group, Brest, France); Pauline Vincent (CLS, Canada); Muriel Pinheiro (EAS-ESRIN, Italy); Antonio Valentino (Starion for ESA, Italy)

Sentinel-1 Radio Frequency Interference mitigation, characterization and localization 1031
Andrea Recchia (Aresys, Italy); Simone Mancon (Aresys Srl, Italy); Abraham Eijgenraam (Aresys, The Netherlands); Beatrice Mai (Aresys, Italy); Alessando Cotrufo and Yan Soldo (ESA, France); Guillaume Hajduch (CLS, France); Muriel Pinheiro (EAS-ESRIN, Italy); Antonio Valentino (Starion for ESA, Italy); Ruben Blériot (Apside, France)

Supplementary calibration of BIOMASS SAR data with ice sheets 1037
Jørgen Dall and Anders Kusk (Technical University of Denmark, Denmark)

Tomographic Ground Steering and Terrain Topography Estimation in Forested Areas: Performance and Applications to BIOMASS. 1042
Francesco Salvaterra (Politecnico di Milano, Italy); Laurent Ferro-Famil (ISAE-SUPAERO, University of Toulouse & CESBIO, University of Toulouse, France); Francesco Banda (Aresys, Italy); Naomi Petrushevsky (Politecnico di MIlano, Italy); Stefano Tebaldini (Politecnico di Milano, Italy)

Phase Calibration of UAV-SAR Tomographic Data with 3D Phase Center Double Localization 1048
Marco Manzoni, Pietro Grassi, Luca Mantuano and Stefano Tebaldini (Politecnico di Milano, Italy)

Phase Error Information from the Shadow Regions of Synthetic Aperture Images 1054
James Prater (Naval Surface Warfare Center Panama City Division, USA); Stig A V Synnes (Norwegian Defence Research Establishment (FFI) & University of Oslo, Norway)

Multi-aspect characterization of internalwave features in synthetic aperture sonar 1059
Roy E Hansen (Norwegian Defence Research Establishment (FFI) & Department of Informatics, University of Oslo, Norway); Anthony Lyons and Jenna Hare (University of New Hampshire, USA)

Advanced Signal Processing for Fine Resolution Mapping of Near-Bed Layers with UWB Ice-Penetrating Radars 1065
Syed Murtaza Rizvi (University of Alabama, USA); Mishal Thapa (Clarkson University, USA); Brett Fraysher (University of Alabama, USA); Allain Frederick Rapadas and Shriniwas Kolpuke (The University of Alabama, USA); Sara Neshani (University of Alabama, USA); Changhyun Chung and Joohan Lee (Korea Polar Research Institute, Korea (South)); Shuji Fujita (National Institute of Polar Research, Japan); Dorthe Dahl-Jensen (University of Copenhagen, Denmark); Drew Taylor (The University of Alabama, USA); Prasad Gogineni (University of Alabama, USA)

SAR Land Cover Classification: Do Heavyweight Deep Learning Models Justify Their Cost Against Lightweight Architectures? 1071
Urszula Libal and Agnieszka Wielgus (Wroclaw University of Science and Technology, Poland); Jakub Gilewicz (Wrocław University of Science and Technology, Poland)

Reading the Physics of Polarimetric Scattering:Temporal Stability and Directionality across Deterministic and Natural Targets 1077
Elise Colin (DTIS-Onera, University of Paris Saclay, France); Frederic Brigui (ONERA, France); Hubert M.J. Cantalloube (ONERA Université Paris-Saclay, France)

3D millimeter wave imaging system for industrial real-time applications 1083
Marvin Holder (Balluff GmbH & Balluff, Germany); Matthias Hofherr and Andreas Seitz (Balluff GmbH, Germany); Mark Eberspächer (Technische Hochschule Würzburg-Schweinfurt, Germany)

Unibap SAR Loom - A Real-time, Adaptable Pipeline for In-Orbit SAR Processing 1089
Oskar Flordal (Unibap, Sweden); Tomas Måhlberg and Anders Persson (Unibap Space Solutions, Sweden); Niklas Ulfvarson (Unibap Space Solutions AB, Sweden); Tova Jahnke (Unibap AB, Sweden)

Radio Frequency Interference Mitigation for BIOMASS. 1095
Riccardo Piantanida, Francesco Banda, Emanuele Giorgi, Giorgio Prandi, Marco Di Trocchio, Laura Fioretti and Andrea Recchia (Aresys, Italy); Muriel Pinheiro (EAS-ESRIN, Italy)

10 years Sea State from worldwide Sentinel-1 SAR archive for ESA Climate Change Initiative CCI. 1099
Andrey Pleskachevsky (German Aerospace Center, Germany); Björn Tings, Stefan Wiehle, Christoph Schnupfhagn and Sven Jacobsen (German Aerospace Center (DLR), Germany)

Closed-loop Cognitive SAR: Use Case Implementation and Performance Demonstration 1105
Adrian Hauser (Airbus, Germany); Arthur de Freitas Precht and Edoardo Caroselli (Airbus Defence and Space GmbH, Germany); Fairouz Stambouli (German Aerospace Center (DLR), Germany); Florian Wiewel and Grzegorz Adamiuk (Airbus Defence and Space GmbH, Germany); Junghyo Kim (Airbus DS GmbH & Space System, Germany); Malte Esslinger and Martin Plintovic (Airbus Defence and Space GmbH, Germany); Marwan Younis (German Aerospace Center (DLR), Germany); Max Ghiglione (European Space Agency (ESA) the Netherlands, The Netherlands); Patrick Berens (Fraunhofer FHR, Germany); Simon Wagner (Fraunhofer FHR & University of Siegen, Germany); Stefan V. Baumgartner and Sushil Kumar Joshi (German Aerospace Center (DLR), Germany))

The SAR Processing Solutions Enabling the On-Board AI Applications. 1111
Simone Mancon and Ruben Berteletti (Aresys Srl,Italy); Paolo Falcone (Aresys srl, Italy); Davide D'Aria and Riccardo Piantanida (Aresys, Italy)

Investigations on the Radiometric Performance of Sentinel-1: Comparing Point and Distributed Target Results and Analyzing Beam-to-Beam Gain Offsets in Overlap Regions 1121
Kersten Schmidt (German Aerospace Center (DLR), Germany); Jakob Giez (German Aerospace Center, DLR, Germany); Sebastian Raab (German Aerospace Center (DLR), Germany); Guillaume Hajduch (CLS Group, Brest, France); Pauline Vincent (Collecte Localisation Satellites CLS, France); Muriel Pinheiro (EAS-ESRIN, Italy); Marco Schwerdt (German Aerospace Center (DLR), Germany)

Autoencoder for On-Board InSAR Phase Denoising and Compression 1126
Lorenzo Bruno Garavelli and Luca Dell'Amore (German Aerospace Center (DLR), Germany); Nicola Gollin (German Aerospace Center, Germany); Michele Martone and Paola Rizzoli (German Aerospace Center (DLR), Germany)

Quality Coefficients for Interferometric Phase Linking 1131
Magnus Heimpel (ETH Zurich, Switzerland); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Othmar Frey (ETH Zurich & Gamma Remote Sensing, Switzerland)

Atmospheric Phase Screen Correction Under Phase Closure Constraints in Multi-Temporal Ground-Based SAR. 1137
Emma Molière (Université Savoie Mont-Blanc, France); Argheesh Bhanot (Université Savoie Mont Blanc, France); Daniel Raucoules and Clara Levy (BRGM, France); Emmanuel Trouve (University Savoie Mont Blanc, France)

A Perception-Action Cycle for SAR Interference Mitigation via Spectral Sensing and Waveform Design 1143
Vincenzo Carotenuto (University of Naples Federico II, Italy); Antonio De Maio (University of Naples Federico II, Italy); Marco Maffei (Thale Alenia Space, Italy); Roberto Venturini (Thales Alenia Space, Italy)

ROSE-L Mission Objectives and Science Status 1149
Lorenzo Iannini (ESA ESTEC, The Netherlands); Julia Kubanek and Malcolm Davidson (ESA/ESTEC, The Netherlands); Nuno Miranda (ESRIN, Italy & ESA, France); Silvia Mezzasoma (ESA, The Netherlands); Steve Osborne (ESA, United Kingdom (Great Britain)); Nico Gebert (ESA/ESTEC, The Netherlands); Adriano Carbone (European Space Agency / ESTEC, The Netherlands); Gianluigi Di Cosimo (European Space Agency ESTEC, Italy)

Multitemporal InSAR Coherence Regression from Ground Range Detected SAR Data. 1155
Francescopaolo Sica (University of the Bundeswehr Munich (UniBw), Germany); Andrea Pulella (German Aerospace Center (DLR), Germany); Michael Schmitt (University of the Bundeswehr Munich, Germany)

Deep-Learning Based Detection of Persistent Scatterers on Sentinel-1 data . . . 1160
Weili Tang (University of Napoli Parthenope, Italy & IREA-CNR, Italy); Sergio Vitale (University of Naples Parthenope, Italy); Diego Reale (CNR-IREA, Italy); Edinson Andres Solarte (National Research Council, Italy); Simona Verde (CNR-IREA, Italy); Gabriel Vasile (National Center for Scientific Research & GIPSA-lab / CNRS, France); Gianfranco Fornaro (CNR-IREA, Italy)

Experimental Evaluation of Motion Compensation 1166
for Compact Wire Detection Radar Keith T.J. Klein and Matern P.G. Otten (TNO, The Netherlands)

Bistatic Signal Penetration Geometry over Land Ice for the HARMONY Mission 1171
Georg Fischer (German Aerospace Center (DLR), Germany); Kristina Belinska (Technical University of Denmark (DTU Space), Denmark); Andreas Benedikter (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Helmut Rott (ENVEO IT GmbH & University of Innsbruck, Austria); Thomas Nagler (ENVEO IT GmbH, Austria); Andreas Kääb (University of Oslo, Austria); Pau Prats-Iraola (German Aerospace Center (DLR), Germany)

Comparison Of Radar Interferograms from NISAR and Sentinel-1 1177
Howard Zebker (Stanford University, USA); Paul A. Rosen (Jet Propulsion Laboratory, USA)

Mars Naiad: A SAR Mission Concept to Map Subsurface Ice on Mars 1180
Etienne Boulais, Timothy Haltigin, Sebastien Lafrance, Patrick Plourde, Christopher Servant and Émile Coté-Pelletier (Canadian Space Agency, Canada); Marilena Amoroso, Eleonora Ammannito and Raffaele Mugnuolo (Agenzia Spaziale Italiana, Italy); Claire Parfitt (European Space Agency (ESA-ESTEC), The Netherlands); David Brandão (Aurora Technology B.V. for ESA - European Space Agency, The Netherlands); Giuseppe Correale (Telespazio Belgium S.R.L. for ESA - European Space Agency, The Netherlands); Jose Manuel Sanchez Perez (European Space Agency (ESAESOC), Germany)

Orbital InSAR at Saturn's Icy Moon Enceladus:
System Concept and Performance. 1185
Andreas Benedikter (German Aerospace Center (DLR), Germany); Paul A. Rosen and Stephen J. Horst (Jet Propulsion Laboratory, USA); Mark Simons (Caltech, USA); Tianlin Wang, Bryan Stiles, Ryan Park, Se-Yeon Jeon and Brian P Hawkins (Jet Propulsion Laboratory, USA); Pau Prats-Iraola (German Aerospace Center (DLR), Germany); Letizia Gambacorta (German Aerospace Center (DLR), Germany & German Aerospace Center (DLR), Germany); Marc Rodriguez-Cassola and Gerhard Krieger (DLR, Germany)

Orbit Analysis for an Interferometric SAR Mission to Enceladus. 1191
Gianluca Montuori (University of Naples Federico II, Italy); Francesca Pelliccia (Università degli Studi di Napoli Federico II, Italy); Michele Manunta (CNR-IREA, Italy); Antonio Natale (Institute for Electromagnetic Sensing of the Environment of the National Research Council of Italy, Italy); Riccardo Lanari (IREA-CNR, Italy); Alfredo Renga (University of Naples Federico II, Italy)

Geolocation Accuracy Assessment of ICEYE SAR Imagery: Latest Results . . . 1197
Qiaoping Zhang and Michael Wollersheim (ICEYE Oy, Finland); Darren Muff (ICEYE, Finland); alen-tyn Tolpekin, Angel Johnsy and Melanie Rankl (ICEYE Oy, Finland)

VISAR Stereo Observations Supporting the VERITAS Radar
Interferometric Mapping Mission 1200
Scott Hensley (Jet Propulsion Laboratory & Radar Science and Engineering Section, USA); Christoph Gisinger and Tobias Koehne (German Aerospace Center (DLR), Germany); Eva Peral (Jet Propulsion Laboratory, USA)

NISAR Radio Frequency Interference Detection and Mitigation: Initial Results and
Assessments 1205
Bo Huang, Brian P Hawkins, Heresh Fattahi and Hirad Ghaemi (Jet Propulsion Laboratory, USA); Geoffrey Gunter (Array Labs, USA); Tyler Hudson (NASA Jet Propulsion Laboratory, USA); Xiaodong Huang (Jet Propulsion Laboratory, USA); Jungkyo Jung and Marco Lavalle (Jet Propulsion aboratory, California Institute of Technology, USA); Paul A. Rosen (Jet Propulsion Laboratory, USA)

Modeling Radar Backscatter at Ku and S Bands from Enceladus' Ice Shell Using the Snow Microwave Radiative Transfer (SMRT) Model. 1211
Tianlin Wang and Paul A. Rosen (Jet Propulsion Laboratory, USA); Andreas Benedikter (German Aerospace Center (DLR), Germany); Mark Simons (Caltech, USA)

Sensitivity Analysis of D-InSAR Soil Moisture Models: AgriROSE-L Campaign 1215
Henri Schauer (German Aerospace Center (DLR), Germany); Nikita Basargin (German Aerospace Center (DLR) & Technical University of Munich (TUM), Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

Azimuth Ambiguity Suppression Method for Multistatic SAR System With Along-Track Formation 1221
Yuesheng Chen (Aerospace Information Research Institute, Chinese Academy of Sciences, China); Lizhi Liu (Aerospace Information Research Institute Chinese Academy of Sciences, China); Zongbiao Chen and Bo Li (Aerospace Information Research Institute, China); Yonghua Cai (Aerospace Information Research Institute, Chinese Academy of Sciences & University of Chinese Academy of Sciences, China); Pingping Lu (Institute of Electronics, Chinese Academy of Sciences, China); Yijiang Nan (Aerospace Information Research Institute, Chinese Academy of Sciences, China)

AgriROSE-L 2025 Case Study: Soil Moisture Estimation from L-Band PolSAR Data with Physical Autoencoders 1226
Nikita Basargin (German Aerospace Center (DLR) & Technical University of Munich (TUM), Germany); Alberto Alonso-González (Signal Theory and Communications Department (TSC), Universitat Politécnica de Catalunya (UPC), Barcelona, Spain); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

Super-Resolution TomoSAR with Gridless Compressive Sensing Detector. . . . 1232
Nabil Haddad (Ecole Militaire Polytechnique, Algeria); Alessandra Budillon (University of Naples Parthenope, Italy); Karima Hadj-Rabah (Paris-Lodron Universitat Salzburg, Austria); Osama Mahfoudia, Mohamed Gaagai and Azzedine Bouaraba (Ecole Militaire Polytechnique, Algeria); Gilda Schirinzi (Universita di Napoli Parthenope, Italy)

Snow Properties-Aware Deep Learning Framework for Centimeter-Level InSAR DEM Accuracy over Ice Sheets 1237
Alexandre Becker Campos (Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Germany & German Aerospace Center (DLR), Germany); Antoine Diez-Latteur and Jose-Luis Bueso-Bello (German Aerospace Center (DLR), Germany); Matthias Braun (Friedrich-Alexander-Universität Erlangen Nürnberg (FAU), Germany); Paola Rizzoli (German Aerospace Center (DLR), Germany)

Dynamics of Soil Organic Carbon in Regenerative Fields: What Can Sentinel-1 Tell Us? 1243
F. Selin Sevimli (Istanbul Technical University & Insoil, Turkey); Elif Dinçer (Istanbul Technical University, Turkey); Esra Erten (İstanbul Technical University, Turkey)

Cross-Continental Forest Height Mapping via Bayesian Deep Learning on TanDEM-X Single-Pass InSAR Data 1248
Federico Ghio (German Aerospace Center (DLR), Germany & Università di Trento, Italy); Daniel Carcereri and Paola Rizzoli (German Aerospace Center (DLR), Germany); Lorenzo Bruzzone (University of Trento, Italy)

Clustering-Based Delineation of Forest Volume from Single-Polarized SAR Tomograms ***1254***
Karima Hadj-Rabah (Paris-Lodron Universität Salzburg, Austria); Nabil Haddad (Ecole Militaire Polytechnique, Algeria); Alessandra Budillon (University of Naples Parthenope, Italy); Martin Sudmanns (Paris-Lodron Universität Salzburg, Austria); Gilda Schirinzi (Università di Napoli Parthenope, Italy)

Potential of Noise Pulses for Assessment of NESZ and RFI in SAR Images . . . ***1260***
Ozan Dogan (ICEYE OY, The Netherlands); Vladimir Ignatenko (ICEYE, Finland); Andrea Radius (ICEYE OY, Finland); Risto Vehmas Risto Vehmas (ICEYE Oy, Finland); Matthew Nottingham (ICEYE, Finland); Leszek Lamentowski (ICEYE Oy, Poland); Jan Krecke (ICEYE OY, Italy); Darren Muff (ICEYE, Finland)

Atmospheric Correction for BIOMASS Interferometry and DTM Estimation ***1266***
Francesco Banda (Aresys, Italy); Elizaveta Antonova, Stefano Tebaldini and Claudio M. Prati (Politecnico di Milano, Italy)

Assessing InSAR Persistent Scatterer Capabilities of the IRIDE- NIMBUS Mission through End-to-End SAR Simulation ***1272***
Tatiana Martelli, Alejandro Testa, Salvatore Falco and Federica Passerini (Aresys, Italy); Davide Giudici (Aresys srl, Italy); Enrico Ciraci (E-Geos, Italy); Fabio Malvarosa (E-GEOS, Italy); Niccolò Franceschi, Lucia Filacchione and Filippo Santarelli (E-Geos, Italy

Assessment and calibration of RCM compacthybrid modes ***1278***
Ridha Touzi (NRCan/RNCan, Canada); Mélanie Lapointe (Canadian Space Agency, Canada); Mary-Anne Fobert and Stefan Nedelcu (CCRS (CCMEO), Canada); Stephane Cote (Canadian Space ency, Canada)

Azimuth Sublooks for the Calibration in Low-Frequency Synthetic Aperture Radar ***1282***
Felipe Betancourt-Payan and Marc Rodriguez-Cassola (DLR, Germany); Maria J. Sanjuan-Ferrer (German Aerospace Center (DLR), Germany)

The next Generation of DLR‘s C-band Transponders for Calibrating future SAR Systems - Status and Outlook ***1286***
Sebastian Raab, Klaus Weidenhaupt, Anna Maria Büchner, Jens Reimann and Marco Schwerdt (German Aerospace Center (DLR), Germany)

Omnidirectional Transponder for Narrow-band Radar Calibration. ***1290***
Oren Cohen and Moshe Vana (ELTA Systems Ltd.,Israel)

Investigation of polarimetric ALOS2 and ALOS4 for peatland and discontinuous permafrost mapping in the oil sand exploration. ***1296***
region (Noth Alberta) Ridha Touzi (NRCan/RNCan, Canada); Paul Wilson (CCRS (CCMEO), Canada); Steven Pawley (AGS, Canada)

Modeling multi-baseline InSAR data from shallow ice-covered lakes ***1302***
Paloma Saporta (German Aerospace Center (DLR), Germany & ETH Zurich, Switzerland); Matteo Pardini (German Aerospace Center (DLR), Germany); Evan J. Wilcox (University of Hamburg, Germany); Julia Boike (Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Germany); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany)

WindFormerV2: Self-Attention Neural Network with Uncertainty Estimation for Wind Retrieval 1306
Nicolae Catalin Ristea (University Politehnica of Bucharest, Romania); Elena-Beatrice Anghel and Andrei Anghel (National University of Science and Technology Politehnica Bucharest, Romania); Amine Benchaabane (CLS, France); Romain Husson (CLS France, France); Guillaume Hajduch (CLS Group, Brest, France); Antoine Grouazel (Ifremer, Germany); Alexis Mouche (Ifremer, France); Frederic Nouguier (IFREMER, Norway); Mihai Datcu (National University of Science and Technology Politehnica of Bucharest, Romania); Nicolas Longépé (European Space Agency, France)

Space-based Absolute Radiometric Calibration Method for Spaceborne SAR Using a Small Calibration Satellite 1312
Tian Qiu (School of Electronics and Information Engineering, China & Beihang University, China); Pengbo Wang (Beihang University, China); Yu Wang (Aerospace Information Research Institute, Chinese Academy of Sciences (AIRCAS), China); Jianyuan Li (Beihang University, China); Tao He (BeiHang University, China)

Multi-Perspective, UAV-Based Passive SAR Imaging 1318
Ali Bekar and Michail Antoniou (University of Birmingham, United Kingdom (Great Britain)) BANet: A Regression-Based Backprojection Autofocus Network for SAR Imagery Kannan Balakrishnan (Fraunhofer-Institut Fur Hochfrequenzphysik Und Radartechnik FHR‘, Germany); Stephan Palm (Quantum-Systems GmbH, Germany)

Despeckling of PolSAR Images with Classification-Based Performance Evaluation 1324
Yunpeng Zhang (University of Naples Parthenope, Italy); Wenyu Yang (Università di Napoli Parthenope, Italy); Zhiqiang Tian (Beihang University, China); Sergio Vitale (University of Naples Parthenope, Italy); Giampaolo Ferraioli (Università di Napoli Parthenope, Italy); Kai Sheng, Jinsong Zhang and Mengdao Xing (Xidian University, China); Vito Pascazio (Università di Napoli Parthenope, Italy)

Single-Baseline P-band PolInSAR Tomography for Forest Monitoring with BIOMASS. 1330
Alberto Alonso-Gonzalez (Universitat Politecnica de Catalunya, Spain); Carlos Lopez-Martinez (Universitat Politecnica de Catalunya (UPC), Spain)

Initial P-band BIOMASS Pol-InSAR Observations for Forest Structure Mapping 1336
Noelia Romero-Puig, Matteo Pardini and Roman Guliaev (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany) 14:40 First Results of 3D Forest Structure Characterization with BIOMASS Tomography Matteo Pardini, Roman Guliaev and Noelia Romero-Puig (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany)

First Results of 3D Forest Structure Characterization with BIOMASS Tomography 1341
Matteo Pardini, Roman Guliaev and Noelia Romero- Puig (German Aerospace Center (DLR), Germany); Konstantinos P. Papathanassiou (German Aerospace Center, Germany)

First BIOMASS Tomography Results in Antarctica 1347
Francesco Banda (Aresys, Italy); Jorgen Dall (Technical University of Denmark, Denmark); Stefano Tebaldini (Politecnico di Milano, Italy)

Preliminary analysis of BIOMASS interferometric data over desert environments ***1353***
Yanghai Yu (Chinese Academy of Sciences, China & DEIB, Politecnico di Milano, Italy); Stefano Tebaldini (Politecnico di Milano, Italy); Francesco Banda (Aresys, Italy)

TanDEM-X DEM 2020 performance and further TanDEM-X topographic products ***1363***
Birgit Wessel (German Aerospace Center (DLR), Germany); Carolin Keller (German Aerospace Center, Germany); Larissa Gorzawski (Company for Remote Sensing and Environmental Research (SLU), Germany); Martin Huber and Ursula Marschalk (German Aerospace Center (DLR), Germany); Achim Roth (DLR, Germany)

Ionosphere Characterisation using BIOMASS Data ***1369***
Jun Su Kim, Hiroatsu Sato, Felipe Betancourt-Payan and Konstantinos P. Papathanassiou (German Aerospace Center, Germany)

Multi-layer ionosphere correction in BIOMASS interferometry ***1373***
Stefano Tebaldini and Francesco Salvaterra (Politecnico di Milano, Italy); Francesco Banda (Aresys, Italy); Muriel Pinheiro (EAS-ESRIN, Italy)

Sentinel-1C AIS cross-validation with the RADARSAT Constellation Mission . . ***1379***
Stefan Graham (European Space Technology Center (ESA-ESTEC), The Netherlands); Mamoon Rashid (Defence Research and Development Canada, Canada & Carleton University, Canada); Espen Swift (Defence Research and Development Canada, Canada); Christoph H. Gierull (DRDC Ottawa, Canada); Dirk Geudtner (European Space Agency, France); Andre Boyer (Canadian Space Agency, Canada); M Lapointe (CSA, Canada); Montse Pinol Sole (European Space Research and Technology Centre (ESA-ESTEC), The Netherlands); Stephane Cote (Canadian Space Agency, Canada); Ramon Torres (European Space Agency & ESTEC, The Netherlands)

Initial Analysis on the Sensitivity of BIOMASS P-band Quad-Pol SAR Images to Agricultural Crops ***1383***
Juan Manuel Lopez-Sanchez, Victor Cazcarra-Bes and Alejandro Mestre-Quereda (University of Alicante, Spain); Carlos Mosquera (AgroAP, Colombia); Corné Van der Sande (eLEAF, The Netherlands)

Volume Decorrelation and Signal Penetration in Interferometric BIOMASS Data over Ice Sheets ***1388***
Georg Fischer, Roman Guliaev and Jun Su Kim (German Aerospace Center (DLR), Germany); Jørgen Dall (Technical University of Denmark, Denmark); Irena Hajnsek (ETH Zurich, DLR Oberpfaffenhofen, Germany); Konstantinos P. Papathanass

An Extended PCA Algorithm for Phase Error Retrieval in Long-Baseline Bistatic SAR ***1393***
Gianluca Coppa and Antonio Gigantino (University of Naples Federico II, Italy); Francesca Pelliccia (Università degli Studi di Napoli Federico II, Italy); Maria Salvato, Alfredo Renga and Andrea Mazzeo (University of Naples Federico II, Italy)

A Sequential Doppler Offset (SDO) Method for Locating Targets Causing Azimuth Fractional Ambiguity in Spaceborne HRWS-SAR ***1398***
Yanyan Zhang, Akira Hirose and Ryo Natsuaki (The University of Tokyo, Japan)

Combined Entropy Minimization and Geometrical Modeling for Low-Altitude UAV Autofocus 1404
Naomi Petrushevsky (Politecnico di MIlano, Italy); Pietro Grassi, Stefano Tebaldini and Claudio M. Prati (Politecnico di Milano, Italy)

ROSE-L Spacecraft Design Overview and Development Status. 1409
Chiara Cucinella (Thales Alenia Space, Italy); Patrizio Pavia (Thales Alenia Space Italia, Italy); Salvatore Sarno (Thales Alenia Space Italy, Italy); Francesca Spataro (Thales Alenia Space-Italia, Italy); Silvio Fenu (Thales Alenia Space Italia, Italy); Rita Roscigno (Thales Alenia Space Italy, Italy); Maurizio Corvetti (Thales Alenia Space Italia, Italy); Daniele Cardinali and Andrea Guarnieri (Thales Alenia Space, Italy); Marta Bucciarelli (Thales Alenia Space Italia, Italy); Giovanni Bay (Thales Alenia Space, Italy); Aldo Torrini (Thales Alenia Space Italia, Italy); Steve Osborne (ESA, United Kingdom (Great Britain)); Nico Gebert (ESA/ESTEC, The Netherlands); Silvia Mezzasoma (ESA, The Netherlands); Gianluigi Di Cosimo (European Space Agency ESTEC, Italy)

From Geometry to Mission Analysis: A BistaticSAR Raw-Signal Simulation Tool for Extended. 1415
Terrains in Support of PLT-1 Mission Alejandro Arias-Gallegos (University of Naples Federico II, Italy); Farah Rasheed Abbasi (University of Parthenope Napoli Italy, Italy); Gerardo Di Martino (Università di Napoli Federico II, Italy); Alessio Di Simone (University of Naples Federico II, Italy); Antonio Iodice (Università di Napoli Federico II, Italy); Daniele Riccio (University of Naples Federico II, Italy); Giuseppe Ruello (Università di Napoli Federico II, Italy); Giovanni Paolo Blasone, Deodato Tapete and Simona Zoffoli Zoffoli (Italian Space Agency, Italy)

Demystifying Topography Knowledge Requirements for Bistatic SAR Focusing. 1421
Maxwell Nogueira Peixoto and Michelangelo Villano (German Aerospace Center (DLR), Germany)

A Precise DEM-dependent Motion Error Compensate Method for Air-borne Ultrahigh- resolution SAR 1427
Luhao Wang (Beihang University, China); Wei Yang (BeiHang University, China); Xiaojie Zhou and Yamin Wang (Beihang University, China); HongCheng Zeng (BeiHang University, China); Yueming Sun (Beihang University, China)

Posterior sampling for speckle reduction in SAR imaging based on a diffusion model with gamma noise 1433
Louise Friot Giroux (Université Jean Monnet - Saint-Etienne, France); Loic Denis (Université Jean Monnet, France); Rémi Emonet (Laboratoire Hubert Curien, Saint-Étienne, France); Amaury Habrard (University Jean Monnet, France)

Initial Test Flights of the DLR HAPSAR Instrument 1439
Matthias Jirousek (DLR German Aerospace Center, Germany); Markus Peichl, Simon Anger, Rolf Scheiber and Maron Schlemon (German Aerospace Center (DLR), Germany); Kai Bleeke (DLR e.V., Germany)

A Temporal Attention Gated Recurrent Unit Network for ISAR Range Alignment 1449
Linya Huang (Nanjing University of Aeronautics and Astronautics, China); Ling Wang (Nanjing University of Aeronautics and Astronautic, China); Lianzi Wang, Yong Yang and Daiyin Zhu (Nanjing University of Aeronautics and Astronautics, China)

Safe Ellipse versus Train-Like Formation Keeping: a Comparative Study in the RODiO Mission Framework ***1455***
Maria Salvato, Antonio Gigantino, Maria Daniela Graziano and Alfredo Renga (University of Naples Federico II, Italy)

Smart On-board Processing for Next Generation SAR Systems: Final Results from the SOPHOS Project ***1461***
Michele Martone (German Aerospace Center (DLR), Germany); Nicola Gollin (German Aerospace Center, Germany); Marc Jäger and Rolf Scheiber (German Aerospace Center (DLR), Germany); Maike Taddiken, Ole Bischoff and Daniel Smith (DSI, Germany); Oskar Flordal, Mathias Persson, Carl Bondesson and Fredrik Andersson (Unibap, Sweden); Vangelis Kollias and Nikos Pogkas (Teletel SA, Greece); Simon Nolte and Jamin Naghmouchi (Universität zu Lübeck, Germany)

Design of Dual-band X/Ka Airborne SAR System for Wide-area Sparse Targets ***1467***
Mingxuan Song and Xuyuan Lin (Shanghai Jiaotong University, China); Fukun Sun (The Aerospace Information Research Institute, Chinese Academy of Sciences, China); Kaizhi Wang, Zilin Wang and Wanni Chen (Shanghai Jiaotong University, China)

An Experimental High-Resolution Stripmap Mode for TerraSAR-X ***1472***
Ulrich Steinbrecher (DLR, Germany); Thomas Kraus, Markus Bachmann and Johannes Böer (German Aerospace Center (DLR), Germany)

ROSE-L SAR Instrument Design Overview and Development Status ***1477***
Friedhelm Rostan (Airbus DS GmbH, Germany); Karen Mak and Alexander Moessinger (Airbus Defence and Space GmbH, Germany); Paul D Jackson (Airbus Defense and Space Ltd, Germany); Manu Muhiyudin (Airbus Defence and Space Ltd, United Kingdom (Great Britain)); Antonio Bauleo (Thales Alenia Space Italia, Italy); Adriano Carbone (European Space Agency / ESTEC, The Netherlands); Nico Gebert (ESA/ESTEC, The Netherlands)

Mitigation of GPS Signal Interference for TanDEM-X ***1482***
Johannes Böer and Markus Bachmann (German Aerospace Center (DLR), Germany); Ulrich Steinbrecher (DLR, Germany)

Passive SAR Imaging Using ICEYE Satellite ***1488***
Holger Nies (University of Siegen, Germany); Florian Behner and Simon Reuter (Fraunhofer Institute for High Frequency Physics and Radar Techniques FHR, Germany); Ivo Ihrke (Universität Siegen, Germany)

PAZ Ground Segment: achievements and current status after eight years of operations ***1492***
Maria Jose Gonzalez Bonilla, Juan Manuel Cuerda Muñoz, Marcos García Rodriguez and Nuria Alfaro (INTA, Spain); Eva Vega (Spanish National Aerospace Institute, Spain)

Estimating Ice Permittivity via Travel Time Analysis of Airborne Radar Data from BuriedTransponder Signatures ***1496***
Letizia Gambacorta (German Aerospace Center (DLR), Germany & German Aerospace Center (DLR), Germany); Andreas Benedikter and Marc Jäger (German Aerospace Center (DLR), Germany); Valentin Marx (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Christian Marinus Huber (Universitätsklinikum Erlangen, Section of Experimental Oncology and Nanomedicine & Insitute of Microwaves and Photonics, Germany); Michael Stelzig (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany); Marc Rodriguez-Cassola and Gerhard Krieger (DLR, Germany)

Characterization of Multi-Rotor X Band SAR 1502
Prathith Vasudev (GalaxEye Space Solutions Pvt. Ltd., India); Denil Chawda (GalaxEye Space Solutions Private Limited, India); Sohail Nadaf (GalaxEye Space Solutions Pvt. Ltd., India); Ramachandran Rajaraman and Sumanta Kumar Patra (Indian Space Research Organization, India)

Design and Optimization of a Wideband Dual-polarization Radiator for Synthetic Aperture Radar Satellite Applications 1508
Jisu Lee, Seong-Ju Kim, Jongmin Park, Je-Woo Yu, Heeduck Chae, Jong-Kuk Park and Jongpil Kim (LIG NEX1, Korea (South)))

Effects of Cross- and Multi-Frequency Self-Supervised Pretraining for SAR Land Cover Mapping 1512
Felix von Hagen (University of the Bundeswehr, Germany); Michael Schmitt (University of the Bundeswehr Munich, Germany)

Dual-Chirp-Rate Waveforms for Range Ambiguity Blurring 1517
Yuta Otsuka and Michelangelo Villano (German Aerospace Center (DLR), Germany)

Analytical Expression for the Impact of Velocity Variations on Azimuth Ambiguity Suppression in Digital Beamforming SAR 1521
Luiz Fernando Quandt Fusinato (German Aerospace Center (DLR) e.V., Germany); Juan Pablo Navarro Castillo and Rolf Scheiber (German Aerospace Center (DLR), Germany)

Impact of Terrain Height Variations on the Performance of F-SCAN SAR 1527
Bo Li (Aerospace Information Research Institute, China); Wenxin Ou and Lizhi Liu (Aerospace Information Research Institute Chinese Academy of Sciences, China); Yuesheng Chen (Aerospace Information Research Institute, Chinese Academy of Sciences, China); Yonghua Cai (Aerospace Information Research Institute, Chinese Academy of Sciences & University of Chinese Academy of Sciences, China); Pingping Lu (Institute of Electronics, Chinese Academy of Sciences, China)

Results of the Synspective data assessment in the framework of the EDAP+ project using the SAR Calibration Toolbox 1533
Andrea Recchia, Laura Fioretti, Beatrice Mai, Giorgio Parma and Marco Spadoni (Aresys, Italy); Juval Cohen and Jorge Ruiz (Finnish Meteorological Institute, Finland); Kevin Halsall (Telespazio UK, United Kingdom (Great Britain)); Leonardo De Laurentiis (European Space Agency, France); Clément Albinet (European Space Agency, Italy)

Ghost Targets Suppression for Staggered SAR and Multichannel SAR Based on Spectrum Truncation and Extrapolation 1539
Zhiqiang Tian and Yu Ze (Beihang University, China); Gilda Schirinzi (Università di Napoli Parthenope, Italy); Xiaojun Li (Xi'an University of Electronic

ALOS-2 and ALOS-4 mutual Spotlight-Spotlight interferometry. 1545
Ryo Natsuaki (The University of Tokyo, Japan)

Experimental TerraSAR-X Ambiguous Acquisitions of 600-km Ground Swath with 3-m Spatial Resolution. 1549
Nertjana Ustalli, Maxwell Nogueira Peixoto and Markus Bachmann (German Aerospace Center (DLR), Germany); Ulrich Steinbrecher (DLR, Germany); Pau Prats-Iraola and Michelangelo Villano (German Aerospace Center (DLR), Germany)

Adding dimensions to Sentinel-1 data: Constellation of passive receiver satellites flying in formation with Sentinel-1 for operational applications ***1553***
Martin Jüssi, Indrek Sünter, Sergei Kuzmin, Priit Pender (KappaZeta, Estonia)

Optimal higher-order dechirping for extended-spotlight SAR/ISAR ship imaging ***1557***
Ilaria Nasso and Fabrizio Santi (Sapienza University of Rome, Italy); Debora Pastina (Uniroma, Italy)

An Orthogonal CP-OFDM Waveform Optimization Method for Anti-Jamming SAR Imaging via Projected Gradient Descent ***1563***
Haixu Shi, Tianqu Liu, Zhongqiu Xu, Guangzuo Li and Wen Hong (Chinese Academy of Sciences, China)

A Three-channel SAR/GMTI Processing Method and Test Results ***1569***
Xujin Zhang and Jin Han (East China Research Institute of Electronic Engineering, China); Yicheng Zhang (Northeastern University, USA); Lulu Tan (Institute of Electronics, Chinese Academy of Sciences, China); Wei Zhang, Jia-Guo Lu, Lei Sheng and Xingwang Qiao (East China Research Institute of Electronic Engineering, China)

A Radiation Correction Method for ScanSAR Images Based on Range-variant Correction and Regional Matching ***1575***
Xinwei An (Beihang University, China); HongCheng Zeng and Wei Yang (BeiHang University, China); Yongchen Pan and Yamin Wang (Beihang University, China); Jie Chen (School of Electronics and Information Engineering, Beihang University, China)

Interpreting Flood Segmentation Maps from SAR Imagery: A Comparative Study of CAMbased Explanation Methods ***1581***
Anastasia Schlegel and Ronny Haensch (DLR, Germany)

2-D Spatial Variant Autofocus for Bistatic ISAR Imaging of Aerial Maneuvering Targets Based on Nonlinear Chirp Scaling Algorithm ***1587***
Jiabao Ding (Zhengzhou University); Mei Liu (Henan University of Technology, China)

SAR2LiDAR: A Deep Learning-Based Cross-Modal Matching Frame-work between SAR Images and LiDAR Point Clouds ***1593***
Yifan Zhang, Jordi Joan Mallorqui and Wen Wang (Universitat Politècnica de Catalunya, Spain)

Combining SAR Simulators to Train ATR Models with Synthetic Data ***1598***
Benjamin Camus and Julien Houssay (SCALIAN DS, France); Corentin Le Barbu (Scalian DS, France); Eric Monteux (SCALIAND DS, France); Cedric Saleun (DGA, France); Christian Cochin (DGA MI - French MoD, France)

ROSE-L E2ES and Ground Processor Prototype: Architecture, Status and Relevant Results ***1604***
Maria J. Sanjuan-Ferrer (German Aerospace Center (DLR), Germany); Marc Rodriguez-Cassola (DLR, Germany); Pau Prats-Iraola and Matteo Nannini (German Aerospace Center (DLR), Germany); Tatiana Martelli, Riccardo Piantanida and Andrea Recchia (Aresys, Italy); Davide Giudici (Aresys srl, Italy); Salvatore Sarno (Thales Alenia Space Italy, Italy); Marta Bucciarelli (Thales Alenia Space Italia, Italy); Silvia Mezzasoma (ESA, The Netherlands)

Generalization of InSAR2InSAR to Sentinel-1 Multi-Channel Data: PolSAR and PolInSAR ***1609***
Carla Geara (Kanop, Télécom Paris, ONERA); Colette Gelas and Louis de Vitry (Kanop, France); Elise Colin (DTIS-Onera, University of Paris Saclay, France); Florence Tupin (Télécom ParisTech, France)

Differential Evolution Optimization for Single Scatter Detection in SAR Tomography ***1615***
Mehwish Nisar (CNR-IREA, Italy); Antonio Pauciullo (IREA, CNR, Italy); Gianfranco Fornaro (CNR-IREA, Italy); Pasquale Imperatore (National Research Council, Italy)

Efficient GPSAR Imaging with Refraction Compensation based on the Small Angle Approximation ***1620***
Ingrid Ullmann (Institute of Microwaves and Photonics, Germany); Tobias Bierer and Christian Damm (Ulm University, Germany)

L-Band SAR interferometry under severe ionospheric conditions. ***1625***
Heidi Hindberg and Jelte van van Oostveen (NORCE Research, Norway); Tom Grydeland (NORCE Norwegian Research Centre, Norway); Tom Rune Lauknes and Liliana Macotela (NORCE Research, Norway); Yngvar Larsen (NORCE, Norway)

A Deep Analysis-Synthesis Framework Based on Learnable Time-Frequency Analysis for SAR RFI Reconstruction and Suppression ***1630***
Hongtao Zhan, Shuangxi Zhang, Xiawei Ren, Yan Feng and Shaohui Mei (Northwestern Polytechnical University, China)

Quantum Feature Maps as Nonlinear Encoders for Fused Sentinel-1/2 Data in Support Vector Machines ***1636***
Sreejit Dutta (DLR, Germany); Sigurd Huber (German Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany); Marco Körner (Technical University of Munich, Germany)

Balancing Speed and Accuracy - Subsampling within the Random Forest Framework ***1642***
Ronny Haensch (DLR, Germany)

Limitations and Potentials of Quantum Computing for InSAR Phase Unwrapping ***1653***
Kay Glatting (German Aerospace Center (DLR), Germany); Jan Meyer (FAU Erlangen & DLR Oberpfaffenhofen, Germany); Sigurd Huber (Germany Aerospace Center (DLR), Germany); Gerhard Krieger (DLR, Germany)

X-band Stereo-SAR for Building Detection and Height Measurement ***1665***
Hiroshi Yokoya and Syusuke Yasui (Space Shift Inc., Japan); Fumitaka Ogushi (NV5 Geospatial KK, Japan); Kazushi Motomura and Naruo Kanemoto (Space Shift Inc., Japan) Simulated SAR Image Generation Based on Ray-Tracing for Arbitrary-Shape Objects Keisuke Sugawara, Satoru Ozawa and Akihisa Uematsu (Japan Aerospace Exploration Agency, Japan); Masanori Miyawaki and HIitoshi Nohmi (Alouette Technology Inc., Japan)

A novel MIMO radar three-dimensional imaging method based on the planar sparse array. ***1671***
Zheng Shuyu, Yang Jian, Xueyan Dong, Zhichao Meng and Yan Ling (Rocket Force University of Engineering, China)

Simulated SAR Image Generation Based on Ray-Tracing for Arbitrary-Shape Objects ***1676***
Keisuke Sugawara, Satoru Ozawa and Akihisa Uematsu (Japan Aerospace Exploration Agency, Japan); Masanori Miyawaki and HIitoshi Nohmi (Alouette Technology Inc., Japan)

Locating the Position of Radio Frequency Interference Sources in TerraSAR-X Products ***1682***
Maximilian Schandri (DLR - HR, Germany); Thomas Kraus (German Aerospace Center (DLR), Germany); Nermine Hendy (Royal Melbourne Institute of Technology, Australia); Akram Al-Hourani (RMIT University, Australia); Markus Bachmann (German Aerospace Center (DLR), Germany)

Effect of Non-Ideal Circular Polarization on Ionospheric Faraday Rotation Angle Estimation Using Spaceborne Circular Full-Polarimetric SAR Measurements . . ***1687***
Xun Wang, Dong Li and Yunhua Zhang (National Space Science Center, Chinese Academy of Sciences, China)

A brain-inspired contrastive learning framework for self-supervised SAR image quality assessment ***1693***
Yaoyao Liu (Institute of Electronics, Chinese Academy of Sciences, China); Li Ke, LIU Tao and Tian Shusen (Naval University of Engineering, China)

Challenges of Tidal Flat Monitoring with Sentinel-1 SAR - A Case Study in the German Wadden Sea ***1699***
Stefan Wiehle, Björn Tings and Anja Frost (German Aerospace Center (DLR), Germany)

A Concept for an Approach for Unified (Non-) Coherent SAR Change Detection ***1705***
Markus Boldt, Erich Cadario and Silvia Kuny (Fraunhofer IOSB, Germany); Antje Thiele (Fraunhofer IOSB & Karlsruhe Institute of Technology (KIT), Germany)