



AIT 2021
X International Conference AIT
"PlanetCare from Space"
Virtual Cagliari, 13-15 September 2021

Final program

13th, Monday September

Pre-conference events

9:00: 11:00

COURSE

"IMPACT COURSE AND GOOGLE EARTH ENGINE PLATFORM" by Dario Simonetti, JRC, supported by the "Land Cover Project", a collaborative plan between the Department of Chemical and Geological Sciences of the University of Cagliari and the STGRI- Autonomous Region of Sardinia.

11:30- 13:00

PANEL DISCUSSION (in Italian language)

A panel dedicated to the Italian Public Administrations, hosted by the Metropolitan City of Cagliari, on the "Urban Spaces Management using Satellite Data".

Chair: Livio Rossi, AIT President

CONFERENCE

14:30- 15:00

Opening session: Livio Rossi - AIT President; Antonio Funedda, Università di Cagliari; Roberto Meloni, Water Authority Agency, ENAS; Massimo Vanzi, Aerospace Delegate, Università di Cagliari
Maria Antonietta Dessena and Maria Teresa Melis, AIT Organizer Committee

15:00- 16:00

Special Panel: NEW SPACE HYPERSPECTRAL MISSION AND THEMATIC CONTRIBUTION
FOR ENVIRONMENTAL MONITORING

Chair: *Mirco Boschetti (CNR IREA); Andrea Taramelli, IUSS Pavia*

Part A: ONGOING AND FORESEEN HYPERSPECTRAL MISSIONS: CHALLENGES AND SCIENTIFIC QUESTIONS
Conference Keynotes:

1. **The Copernicus Hyperspectral Imaging Mission, CHIME: application domains and on-going studies**, Jennifer Adams & Marco Celesti – European Space Agency -ESA
2. **EnMAP: The German Spaceborne Imaging Spectroscopy Mission**, Anke Schickling, Sabine Chabrilat, Saskia Förster, Karl Segl, Godela Rossner, Michael Bock, Laura LaPorta, Sebastian Fischer– German Aerospace Center - DLR
3. **The Italian PRISMA mission, product and next phase: payload characteristics, success study and future scenario**, Ettore Lopinto & Patrizia Sacco – Italian Space Agency- ASI

Q&A

16:15- 18:00

Part B: TECHNICAL AND THEMATIC PRESENTATION: HYPERSPECTRAL DATA POTENTIALITY AND EXPLOITATION

1. **Orthorectification of PRISMA Images**, Valerio Baiocchi, Felicia Monti, Francesca Giannone
2. **PRISMA Pansharpening Preliminary Analysis**, Roberta Bruno, Mauro Di Donna, Maria Lucia Magliozzi, Fabio Volpe, Massimo Zavagli
3. **Hyperspectral remote sensing for biodiversity: experience and potential of the new hyperspectral PRISMA satellite**, Micol Rossini, Giulia Tagliabue, Cinzia Panigada
4. **Assessing non-Photosynthetic Vegetation from Satellite Imaging Spectroscopy: PRISMA Current Results and Perspectives for Future Research**, Monica Pepe, Loredana Pompilio, Luigi Ranghetti, Beniamino Gioli, Mirco Boschetti
5. **The New Hyperspectral Satellite PRISMA: Imagery for Forest Types Discrimination**, Elia Vangi, Giovanni D'Amico, Saverio Francini, Francesca Giannetti, Gherardo Chirici, Bruno Lasserre, Marco Marchetti
6. **Unattended Field Spectroscopy in the Alps: Preliminary Comparison with Sentinel 2 and Prisma Satellite Data**, Biagio Di Mauro, Roberto Garzonio, Sergio Cogliati, Edoardo Cremonesi, Tommaso Julitta, Andrea De Sanctis, Alexander Kokhanovsky, Micol Rossini, Roberto Colombo

Q&A

14th, Tuesday September

9:00- 11:00

ITALIAN SPACE AGENCY- ASI SPECIAL SESSION:
"PRESENT AND FUTURE OF COSMO SKYMED MISSION"

Conference Keynote Speaker: **Maria Virelli**, Responsible COSMO SkyMed Mission ASI

Chair: **Livio Rossi**, AIT

1. **Crop Classification and Biomass Estimate through Machine Learning Algorithms Applied to COSMO-SkyMed Imagery**, Alessandro Lapini, Giacomo Fontanelli, Simonetta Paloscia, Simone Pettinato, Emanuele Santi, Deodato Tapete, Francesca Cigna, Giuliano Ramat
2. **Measuring Impacts of COVID-19 on Urban Dynamics Using COSMO -SkyMed Time Series**, Deodato Tapete
3. **Satellite Data for Structural Monitoring of Historical Building: The Temple of Minerva Medica in Rome**, Dora Foti, Mariella Diaferio, Michela Lerna, Maria Francesca Sabba'
4. **First and Second-Generation COSMO-SkyMed DINSAR Data Integration for Advanced Deformation Analyses over the Built-Up Environment**, Manuela Bonano, Riccardo Lanari, Michele Manunta, Yasir Muhammad, Pasquale Striano, Ivana Zinno
5. **Using COSMO-SkyMed to Support Infrastructure Monitoring**, Elena Francioni, Dino Quattrociochi, Mario Costantini, Carmine Frascella, Fabio Malvarosa, Federico Minati, Francesco Trillo, Francesco Vecchioli, Britti Filippo, Vittorio Gentile, Federica Pieralice
6. **COSMO-SkyMed Very High Resolution INSAR in the Era of The Sentinel-1 Based European Ground Motion Service**, Mario Costantini, Carmine Frascella, Fabio Malvarosa, Federico Minati, Francesco Trillo, Francesco Vecchioli, Elena Francioni

Q&A

11:15- 12:45

1 Parallel Special Panel
“Advanced Earth Observation products and integration with in situ data and modelling tools for water resources management – The H2020 PRIMEWATER project”

Chair and Co-Chair names:

Mariano Bresciani (CNR-IREA)

Maria Antonietta Dessena (ENAS)

Claudia Giardino (CNR-IREA)

Thomas Heege (EOMAP)

Ilias Pechlivanidis (SMHI)

Karin Schenk (EOMAP)

Apostolos Tzimas (EMVIS)

Key talk: Apostolos Tzimas (EMVIS) - **Overview of PRIMEWATER Project**

Thematic Talks:

- **EO water quality products for different use cases**, *Thomas Heege, Karin Schenk*
- **New Hyperspectral sensors (PRISMA, DESIS) to improve water quality characterization**, *Claudia Giardino*
- **Hydro-ecological forecasts modelling for different use cases**, *K. Kandris, E. Romas*
- **Airborne Optical Data Harvesting and Geo-Processing for Water Quality Retrieval of Lake Mulargia**, *Mariano Bresciani, Claudia Giardino, S. Mangano, M. Pinardi, Karin Schenk, Thomas Heege, Maria Antonietta Dessena, P. Buscarinu*

Q&A

COURSE
[EO Virtual Lab](#)

EXPLANATION OF VIRTUAL LAB,
Mariano Bresciani

2 Parallel Panel
“Urban Health from Space”

Chair: *Giuseppina Vacca, UNICA*

1. **Analysis of the Urban Heat Island Phenomenon through the Combined Use of GIS and Satellite Remote Sensing**, *Michele Mangiameli*
2. **Assessment of Suitability of Different Point Clouds for Cyclist Road Safety**, *Niamh O Reilly*
3. **How much greenness can mitigate urban warming? A tentative answer based on thermal data from Landsat missions**, *Tommaso, Orusa, Samuele De Petris, Filippo, Sarvia, Enrico Borgogno-Mondino*
4. **A Remote Sensing Index for Assessing Peri-Urban Ecosystem Services: A Case from Tuscany (Italy)** *Elena Barbierato, Iacopo Bernetti, Irene Capecchi*
5. **MAFIS-Multiple Actors Forest Information System: Eo+Ai+Euro Data Cube for Scalable Forest Monitoring Services**, *Marcello Maranesi, Matteo Picchiani, Chiara Clementini, Cristina Vittucci, Marco Marchetti, Marco Ottaviano, Remo Bertani, Simone Luppi, Fabio Del Frate, Daniele Latini, Julia Kubanekpietro Maroè, Julia Kubane, Stefano Ferretti, Fabio Salbitano, Gherardo Chirici, Pietro Maroè, Jaro Hofierka*
6. **Estimation of Multitemporal Dry Deposition of Air Pollution by Urban Forests at City Scale**, *Valeria Fanara, Gherardo Chirici, Claudia Cocozza, Giovanni D'Amico, Francesca Giannetti, Saverio Francini, Fabio Salbitano, Andrew Speak, Elia Vangi, Davide Travaglini*

Q&A

13:00- 14:30

POSTER SESSION*

Chair: *Maria Antonietta Dessena & Maria Teresa Melis*

14:30- 15:15

COURSE

TRAINING ACTIVITY- USERS EXPERIENCES

“Demonstrative session for the use of HPC-High Performance Computing on satellite and geospatial data applications in the urban environment (land consumption, green indicators)”

Matteo Picchiani, Gmatics

- Introduction to the DYDAS project and the HPC environment
- How to access data, process data, view results
- "Soil consumption" application exercise
- Step by step actions
- Results evaluation
- Questions from the participants

15:30- 16:40

3 Parallel Special Panel

“MARINE REMOTE SENSING FOR A SUSTAINABLE DEVELOPMENT”

Part A

Chair and Co-Chair: *Ferdinando Nunziata, Andrea Buono*

Conference Key Note: **MARINE REMOTE SENSING FOR A SUSTAINABLE DEVELOPMENT**, *Maurizio Migliaccio, Ferdinando Nunziata, Andrea Buono*

Thematic Talks:

1. **Offshore Wind Farms Observation for a Green Energy: a Multi-Sensors Satellite Approach**, *Silvia Alfieri, Andrea Buono, Emanuele Ferrentino, Ferdinando Nunziata, Maurizio Migliaccio*
2. **Sea Wind Field Over the Gulf of Naples from SAR Imagery**, *H. A. Qureshi, Andrea Buono, D. Di Luccio, Ferdinando Nunziata, G. Benassai and Maurizio Migliaccio*
3. **Further Insights of the Non-Bragg Scattering Impact on Nonlinear Internal Waves Signatures in Full-Polarized L-Band Sar Imagery**, *Carina R. de Macedo, José C. B. da Silva*
4. **On the Analysis of the Terra Nova Bay Polynya Using Polarimetric SAR Measurements**, *Giovanna Inserra, Andrea Buono, Ferdinando Nunziata, Maurizio Migliaccio, Giuseppe Aulicino, Flavio Parmiggiani*

4 Parallel Panel

“MONITORING FOREST HEALTH”

Chair: *Francesca Giannetti*

1. **Forest Disturbance Monitoring from Earth Observation**, *Federico Filippini, Daniela Smiraglia, Alice Pezzarossa, Emiliano Agrillo*
2. **A Spatial approach for multi-temporal spatial estimation of forest GSV and aboveground carbon pool. A case of study in Tuscany (Italy)**, *Elia Vangi, Giovanni D’Amico, Saverio Francini, Costanza Borghi, Francesca Giannetti, Davide Travaglini, Gherardo Chirici*
3. **Amazon Forest Monitoring Using Fully Convolutional Neural Networks**, *De Jesús Pugliese Viloria, Vasil Yordanov, Blagoj Delipetrev, Maria Antonia Brovelli*
4. **In Situ (TREE TALKER) and Remotely-Sensed Multispectral Imagery (Sentinel-2) Integration for Continuous Forest Monitoring: the First Step Toward Wall-To-Wall Mapping of Tree Functional Traits**, *Francini Saverio, Zorzi Ilaria, Giannetti Francesca, Chianucci Francesco, Travaglini Davide, Chirici Gherardo, Coccoza Claudia*
5. **Monitoring thirty-five years of Italian forest disturbance using Landsat time**

5. **A Self-Organizing-Map Based Method for Finding Plastic Patches on the Sea**, C. Calleda, A. Montisci, M.C. Porcu, A. Rashid

Q&A

series, Costanza Borghi, Saverio Francini, Martina Pollastrini, Filippo Bussotti, Davide Travaglini, Marco Marchetti, Michele Munafò, Giuseppe Scarascia-Mugnozza, Daniela Tonti, Marco Ottaviano, Chiara Giuliani, Alice Cavalli, Elia Vangi, Giovanni D'Amico, Francesca Giannetti, Gherardo Chirici

6. **Multitemporal LiDAR data for forest carbon monitoring in Mediterranean Forest**, Giovanni D'Amico, Francesca Giannetti, Elia Vangi, Costanza Borghi, Saverio Francini, Davide Travaglini, Gherardo Chirici

Q&A

16:45- 18:00

**5 Parallel Special Panel
"MARINE REMOTE SENSING FOR A
SUSTAINABLE DEVELOPMENT"**

Part B

Chair: Maurizio Migliaccio

1. **Multi-Look Approaches for GNSS-R Wind Speed Retrieval**, Giuseppe Grieco, Marcos Portabella, Feixiong Huang, Ad Stoffelen
2. **SAR Sea Surface Wind Field Estimation: The APPLICAVEMARS Project**, Ferdinando Nunziata, Maurizio Migliaccio, Matteo Aparone, Andrea Buono, Stefano Zecchetto, Francesco De Biasio, Marcos Portabella
3. **Analysis of the Vertical Movement of Active GNSS Stations as A Result of Semidiurnal Tides**, Rose Pearson, Eugen Niculae
4. **Sea State Analysis Using GNSS-R in Far-From-Specular Acquisition Geometries**, Gerardo Di Martino, Alessio Di Simone, Antonio Iodice, Daniele Riccio, Giuseppe Ruello

Q&A

**6 Parallel Panel
TREND ANALYSIS OF SATELLITE DATA AND
CLIMATE**

A special panel supported by "CLIMATE Project (RAS L.R.19/96-2019)"

Chairs: Maria Antonietta Dessena & Maria Teresa Melis

1. **Trend Analysis of MODIS Time Series on Forest Cover and Its Climatic Responses in Middle Volga Region of Russia**, Oleg Vorobev, Eldar Kurbanov, Sergey Lezhnin, Denis Dergunov
2. **Hail Detection from High-Frequency Radiometers on The GPM Constellation. A New Prospect for Operational Applications and A Global Climatology**, Sante Laviola, Giulio Monte, Vincenzo Levizzani, Ralph R. Ferraro, James Beauchamp
3. **Spatial and Temporal Variability of Snow Thermal Inertia**, Roberto Colombo, Roberto Garzonio, Biagio Di Mauro, Greta Pennati, Micol Rossini, Sergio Cogliati, Antonino Maltese, Paolo Pogliotti, Edoardo Cremonese
4. **15 Years of Snow Cover Retrieval and Monitoring Over Sardinia By MSG Data**, Paolo Boi
5. **CLIMATE Project: The Involvement of The Communities in the Knowledge of the Fragile High Mountains Ecosystems in Pakistan**, Maria Teresa Melis, Francesco Dessì, Paolo Loddo, Alessio Maccioni, Maurizio Gallo, Riaz. Ul Hassa, M. Aurang Zaib, Elisa Vuillermoz

Q&A

15th, Wednesday September

9:00- 10:45

**7 Parallel Special Panel
ANALYSIS AND QUANTIFICATION OF
VOLCANIC ERUPTIONS**

Conference Key Note:

**CHARACTERIZING AND QUANTIFYING THE
ERUPTIVE ACTIVITY THROUGH MULTI-SOURCE
SATELLITE IMAGERY**, *Gaetana Ganci, Istituto
Nazionale di Geofisica e Vulcanologia, Sezione di
Catania - Osservatorio Etneo.*

Thematic Talks:

Chair and Co-Chair: **Simona Scollo, Lucia Mona,
Laura Pioli**

1. **Uncertainty analysis in the Mass Eruption
Rate Estimation in real time**, *Luigi Mereu,
Simona Scollo, Costanza Bonadonna,
Franck Donnadieu, Valentin Freret
Lorgeril, Frank Silvio Marzano*
2. **Dual-Wavelength Polarimetric Lidar
Observations of the Volcanic Ash Cloud
Produced During the 2016 Etna Eruption**,
*Luigi Mereu, Simona Scollo, Antonella
Boselli, Giuseppe Leto, Ricardo Zanmar
Sanchez, Costanza Bonadonna, Frank
Silvio Marzano*
3. **Remote sensing characterization of the
Mount Etna plume properties during the
EPL-REFLECT campaign**, *Alessia Sannino,
Antonella Boselli, Giuseppe Leto, Simona
Scollo, Ricardo Zanmar Sanchez, Salvatore
Amoruso, Letizia Spampinato, Pasquale
Sellitto*
4. **Lidar characterization of the Stromboli
volcanic plume during the summer 2019**,
*Alessia Sannino, Salvatore Amoruso,
Antonella Boselli, Giuseppe Leto, Ricardo
Zanmar Sanchez, Simona Scollo*
5. **Integration of EO and model data for the
monitoring of volcanic plumes critical to
aviation operations**, *Nikolaos
Papagiannopoulos, Lucia Mona, Claudio
Dema, Vassilis Amiridis, Anna Gialitaki,
Anna Kampouri, Andreas Uppstu, Simona
Scollo, Luca Merucci, Marie Boichu,
Philippe Goloub, Sara Barsotti, Michelle
Parks*

Q&A

**8 Parallel Special Panel
“REMOTE SENSING APPLICATION IN GEO-
ARCHEOLOGY”**

Conference Key Note:

REMOTE SENSING IN GEOARCHEOLOGY,
Donatella Dominici, University of L'Aquila

Thematic Talks:

Chair: **Francesco Immordino**

1. **Spectral data processing**, *Sara Zollini,
Maria Alicandro*
2. **Cultural Heritage: innovating
conservation and restoration by remote
sensing**, *Elena Candigliota Raimondo
Quaresima*
3. **Investigating spaceborne remote sensing
techniques for buried Nuraghi structures
identification: the Nuraghe Nanni Arrù
case study**, *Carlino Casari, Eva Lorrain,
Laura Muscas, Stefania Amici, Vittorio
Cannas*

Q&A

[Remote Sensing Laboratory](#)

*Sara Zollini, Maria Alicandro,
Francesco Immordino*

**“Running and Processing of Spectral data
through image processing software”**

COURSE

TRAINING ACTIVITY- USERS EXPERIENCES
"MICROWAVE RADAR REMOTE SENSING OF
VOLCANIC CLOUDS:
INTRODUCTION AND APPLICATION TO ETNA
ERUPTIONS"
Luigi Mereu

- 1) Elements of microwave radar systems
 - 2) Radar observables and particle size distributions
 - 3) Microwave radar simulations and particle size sensitivity
 - 4) Bayesian detection and estimation of tephra mass and size
 - 5) Regressive estimation of tephra mass and size
 - 6) Radar data: polar volumes and 3D/2D representations
 - 7) Applications to real cases.
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11:00- 12:15

9 Parallel Panel
**"PRECISION FARMING AND FORESTRY
MANAGEMENT"**

Chairs: *Enrico Borgogno Mondino, Gherardo Chirici*

1. **Can meadows mowing be detected by remote sensing? A possible answer based on Sentinel-2 image time series in the cap framework**, *Filippo Sarvia, Samuele De Petris, Enrico Borgogno-Mondino*
2. **Multiscale monitoring of poplar plantations using proximal and remotely-sensed imagery**, *Francesca Giannetti, Clara Tattoni, Giovanni D'Amico, Saverio Francini, Gherardo Chirici, Elio Romano, Massimo Brambilla, Davide Travaglini, Elia Vangi, Francesco Chianucci*
3. **Estimation of Biophysical Parameters in Rice Cropping System from Sentinel-2 Data and Hybrid Approach: Perspective for Precision Agriculture Application**, *Marta Rossi, Gabriele Candiani, Francesco Nutini, Mirco Boschetti, Marco Gianinetto*
4. **Retrieval of maize biophysical variables from multispectral and hyperspectral EO data using a hybrid approach**, *Marina Raghetti, Mirco Boschetti, Marco Gianinetto, Giulia Tagliabue, Cinzia Panigada, Gabriele Candiani*
5. **A Reproducible Workflow to Derive Crop Phenology and Agro-Practice Information from Sentinel-2 Time Series: a Case Study**

10 Parallel Panel
"GEOHAZARD AND EMERGENCY"

Chair: *Maria Teresa Melis*

1. **IRIS, a New Photomonitoring Tool for Geohazards Monitoring from Space**, *Saverio Romeo, Serena Moretto, Michele Gaeta, Paolo Mazzanti*
 2. **PRompt Intervention MOnitoring Protocol (PRIMO) for Emergency Response: Results from the Bonorva Landslide**, *Romeo Saverio, Marco Baleani, Giuseppe Scanu, Francesca Bozzano, Paolo Mazzanti, Gabriele Scarascia Mugnozza*
 3. **Monitoring of Flood Event Propagation Using Synthetic Aperture Radar Images and Hydrological Data: a Case Study from Northern Italy**, *Luigi Guerriero, Pietro Miele, Mariano Di Napoli, Diego Di Martire*
 4. **Multi-source and multi-scale monitoring system of deep-seated gravitational slope deformation in East-Central Sardinia: Insight about Geomorphological Evolution**, *Valentino Demurtas, Giacomo Deiana, Paolo E. Orrù*
 5. **Airborne SAR Polarimetric Decompositions for Soil Moisture Retrieval**, *Giovanni Anconitano, Marco Lavallo, Nazzareno Pierdicca*
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- for Sardinia Cropping Systems, *Luigi Raghetti, Francesco Nutini, Donato Cillis, Mirco Boschetti*
6. **The Key Role of Multiscale Remote Sensing Data to Develop Forest Decision Support Systems**, *Francesca Giannetti, Yamuna Giambastiani, Silvia Fiorentini, Davide Travaglini, Saverio Francini, Elia Vangi, Giovanni D'Amico, Marta Chiesi, Fabio Maselli, Gherardo Chirici*

Q&A

6. **Evaluating the Potentialities of Copernicus Very High Resolution (VHR) Optical Datasets for Assessing the Shoreline Erosion Hazard in Microtidal Environments**, *Luca Cenci, Valerio Pampanoni, Giovanni Laneve, Carla Santella, Valentina Boccia*
7. **Remote Sensing and Hydraulic modelling for flood monitoring**, *Lucia Luzietti, Vincenzo Scotti*

Q&A

12:15- 13:30

SPECIAL PANEL supported by “Women in Aerospace- Europe (WIA- E) Rome Local Group”

“WOMEN AND SPACE”

“Women and Space” is a special session proposed by the Rome Local Group of Women in Aerospace Europe (WIA-E Rome LG), to highlight the achievements of women researchers and industry professionals involved in space activities as major contributor to the theme of the Conference: “Planet Health”.

The **Keynote Speech** will be performed by three persons:

Cristina Valente and **Annamaria Nassisi**, leaders of the WIA-E Rome LG, and **Alice Pellegrino**, Coordinator of Gender Equality Research.

The role of women, and the challenges they face in this field and their responsibilities to others and to the next generations of women will be discussed Research with the invited panellists:

- *Maria Fabrizia Buongiorno* (INGV), EO Scientist and President eGEOS
- *Elena Toson* (T4i), PMI Professional
- *Federica Angeletti* (PhD, Aerospace Engineer), Young Researcher
- *Fabio Santoni*, Professor Aerospace System, La Sapienza “Dipartimento di Ingegneria Aeronautica, Elettrica ed Energetica”
- *Paolo Marzioli*, (PhD, Aerospace Engineer), Young Researcher
- *Eva Hartaj*, *ENGIE Project*

The Panel will end with a Q&A session to give the audience the opportunity to interact with the panelists.

14:30- 15:45

11 Parallel Panel “REMOTE SENSING IN GEOLOGICAL SURVEYS AND MAPPING “

Chair: Maurizio Mulas, Maria Antonietta Dessena

1. **Geological Mining Survey Through the Analysis of ASTER and Landsat 8 Images in the Southern Sector of Ecuador**, *Danny Bladimir, Penafiel Lara Andy Joel, Diaz Arias Eduardo, Altamirano Moran David Ricardo, Maurizio Mulas*
2. **A tool for digital resources analysis methodology to planning Geological**

12 Parallel Panel “UAV AND SMALL SATELLITES”

Chair: Fabio Giulio Tonolo

1. **UAV photogrammetry-based mapping of Sicilian Pocket Beaches: First Approach**, *Anselme Muzirafuti, Maria Cascio, Stefania Lanza*
2. **Space Economy and EO Small SAT**, *Annamaria Nassisi, Pietro Santoliero, Alba Iovane, Julian Canettieri, Vanessa Mastroddi, Luca Soli, Carlo Ciancarelli*

- survey activities, *Michelle Villalta Echeverría, Ana Viña Ortega, Erwin Wilfrido Larreta Torres, Maurizio Mulas*
3. **Soil and water salinization of an oasis ecosystem in the Ziban region (Tolga), Algeria,** *S. Belghemmaz, M. Fenni, G.M. Afrasinei, Y. Louadj*
 4. **Objective Geological and Geomorphological Mapping of Martian Sedimentary Deposits: an Example From the Southeastern Margin of Holden Crater,** *Ilaria Di Pietro, Monica Pondrelli, Alessandro Frigeri, Lucia Marinangeli, Anna Chiara Tangari, Marco Pantaloni, Erica Luzzi, Riccardo Pozzobon, Andrea Nass, Matteo Massironi, Angelo Pio Rossi*
 3. **Deep Learning-Based Technique for On-Road Object Tracking from Unmanned Aerial Vehicle,** *Ivan Saetchnikov, Skakun Victor*
 4. **SMEs for SPACE ECONOMY: Applications and Services for the Territorial control,** *Michele Boella, M. L. Battagliere, Gianluca Falcioni, Ilaria Pennino, Maria Teresa Melis, Vincenzo Gabellone, Osvaldo Piperno*
 5. **Small SAT SAR Constellation Added Value vs. Existing Earth Observation Space System,** *Luca Soli, Vanessa Mastroddi, Carlo Ciancarelli, Annamaria Nassisi, Arturo Intelisano*

Q&A

Q&A

15:45- 17:15

Closing Panel

“FOREST FIRES MONITORING AND HAZARD”

Chair: Ioannis Vogiatzakis, Faculty of Pure and Applied Sciences at the Open University of Cyprus (OUC)

THE DISASTER OF JULY 2021 IN SARDINIA: A VOICE FROM THE CIVIL PROTECTION

Daniela Pani

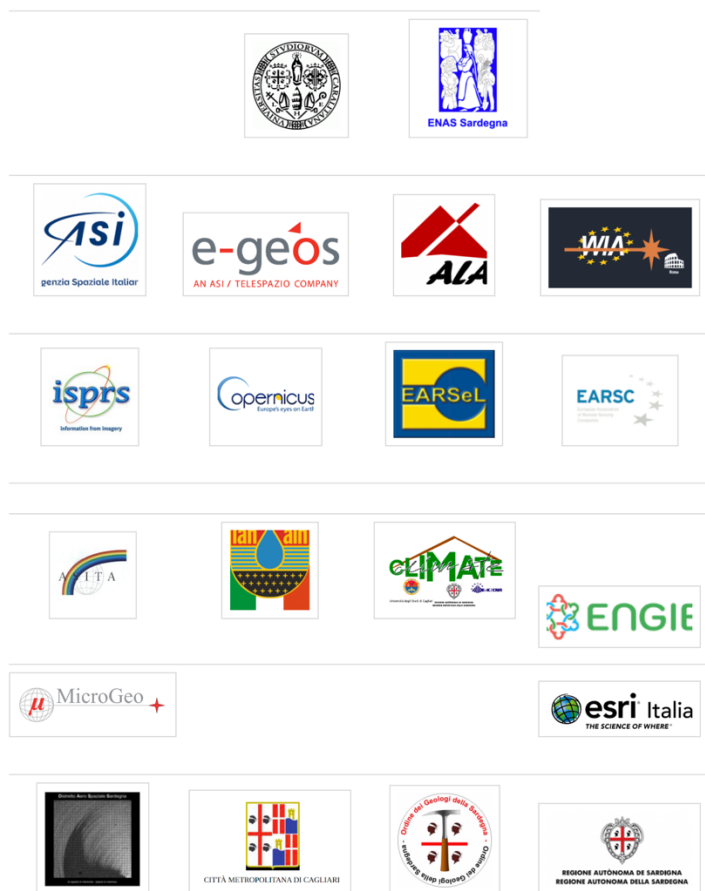
1. **AI for Wildfires Management,** *Alessandro Urru*
2. **Analysis of Wildfire Natural Hazard Mapping in Sardinia Based on Bioclimatic Layers, Environmental Factors and NDVI,** *Paolo Capece, Alessandro Delitala, Eva Fedato, Germana Manca*
3. **Forest Fire Risk Assessment in The Greek Island of Kefalonia Using Multicriterial Analysis of Spatial Data and Remote Sensing Products Through GIS,** *Elena Panagiotidou, Stavros Kolios*
4. **Semi-Automatic Approach of Burnt Area Extraction Based on Different Indices,** *Elisa Ilardi, Salvatore Morreale, Stefano Bassetti, Emere Arco, Piero Boccardo*
5. **Sampling Scheme and Reference Fire Perimeters from Sentinel-2 Data for Validation of Burned Area Products in Africa,** *Matteo Sali, Lorenzo Busetto, Mirco Boschetti, Daniela Stroppiana, Magi Franquesa, Emilio Chuvieco*

Closing acknowledgements by Livio Rossi and Giovanni Maria Lechi, AIT

During the Conference, a web space will be dedicated to the companies supporting the event.

Technological solutions and new proposals from these enterprises
will be available at the page:

<https://sites.unica.it/ait2020/home/technological-solutions/>



To attend in the Conference, please use the link below, and you will receive the registration link to the web Platform:

<https://sites.unica.it/ait2020/home/registration/>

**The poster session will be organized with short presentations (3 minutes)*

by each speaker through the following possible formats:

- poster in pdf format with online presentation
- video presentation
- ppt online presentation

Speakers are invited to participate to the session, and to be available for any questions.

The video and pdf poster would be sent by 6th September for the uploading into the system.

The posters and the videos will be online during all the days of the Conference.