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WORKSHOP PROGRAM

Wednesday, October 4

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Evie White, DMAD - Marine Mammals Research Association, Turkey
Jessica Roberts, DMAD - Marine Mammals Research Association, Turkey
Aylin Akkaya, DMAD - Marine Mammals Research Association, Turkey
- 305 **Investigating the Spatial Interactions Between Marine Traffic and Bottlenose Dolphins (*Tursiops truncatus*) Within the Coastal Waters of Montenegro, South Adriatic Sea**
Evie White, DMAD - Marine Mammals Research Association, Turkey
Antony Knights, University of Plymouth, United Kingdom
Robbie Brazier, DMAD - Marine Mammals Research Association, Turkey
Aylin Akkaya, DMAD - Marine Mammals Research Association, Turkey
- 311 **Presence of Marine Floating Litter and Vulnerable Species in the Central Mediterranean Sea**
Clara Monaco, University of Catania, Italy
Alessandra Raffa, University of Catania, Italy
Enrico Giarrusso, University of Catania, Italy
Antonella Arcangeli, ISPRA, Italy
Carla Tumino, University of Catania, Italy

Session 7.1 - Emerging fibre-optic technologies for real-time remote sensing of the ocean environment

Room: University of Malta - Valletta Campus - Aula Magna

- 316 **New Advances in Fiber Optic Technology for Environmental Monitoring, Safety, and Risk Management Applications**
Susann Wienecke, Alcatel Submarine Networks, NTNU, Norway
Jan Kristoffer Brenne, Alcatel Submarine Networks, NTNU, Norway

- 322 **Borehole Fiber-Optic Cables for Monitoring Ocean Dynamics: Case Study From Australia**
Evgenii Sidenko, Curtin University, Australia
Stanislav Glubokovskikh, Lawrence Berkley National Laboratory, USA
Boris Gurevich, Curtin University, Australia
Konstantin Tertyshnikov, Curtin University, Australia
Pavel Shashkin, Curtin University, Australia
Christine Erbe, Curtin University, Australia
Roman Pevzner, Curtin University, Australia
- 328 **Monitoring Water Column and Sediments Using DAS**
Menno Buisman, Delft University of Technology, Port of Rotterdam, The Netherlands
- 334 **Ship Noise Characterization for Marine Traffic Monitoring Using Distributed Acoustic Sensing**
Lukas Thiem, Norwegian University of Science and Technology, Norway
Susann Wienecke, Alcatel Submarine Networks, Norway
Kittinat Taweessintanon, Norwegian University of Science and Technology, Norway
Melvin Vaupel, Norwegian University of Science and Technology, Norway
Martin Landrø, Norwegian University of Science and Technology, Norway

**Session 7.2 - Advanced Modelling Analysis on Priority Species, Habitat and Marine Environment
- PART II**

Room: University of Malta - Valletta Campus - Meeting Room 102

- 340 **Individuals Size Estimations of the Sperm Whales From the Gulf of Taranto (Northern Ionian Sea, Central Mediterranean Sea) Employing Clicks' Inter-Pulse-Interval (IPI) Measurements**
Marta Azzolin, University of Torino, Italy
Stefano Bellomo, Jonian Dolphin Conservation, Italy
Alessia Bono, University of Torino, Italy
Giulia Cipriano, University of Bari, Italy
Roberto Crugliano, Jonian Dolphin Conservation, Italy
Carmelo Fanizza, Jonian Dolphin Conservation, Italy
Veronica Frassa, University of Torino, Italy
Martina Pelagatti, IAS-CNR, Italy
Guido Pietrolungo, University of Padova, Italy)
Pasquale Ricci, University of Bari, Italy
Francesca Cornelia Santacesaria, Jonian Dolphin Conservation, Italy
Roberto Carlucci, University of Bari, Italy
- 346 **The Comparison of Whistle Characteristics of Bottlenose Dolphins (*Tursiops Truncatus*) in the Coast of Montenegro and the Eastern Mediterranean Sea of Turkey: A Preliminary Study**
Yarnick Herben, DMAD - Marine Mammals Research Association, Turkey
Evie White, DMAD - Marine Mammals Research Association, Turkey
Irna Huisjes, DMAD - Marine Mammals Research Association, Turkey
Leyla Israpilova, DMAD - Marine Mammals Research Association, Turkey
Aylin Akkaya, DMAD - Marine Mammals Research Association, Turkey
- 351 **Modeling Impacts of Climate Change and Anthropogenic Factors on Cetacean Biodiversity in the Adriatic and Ionian Sea as a Premise for Enabling Future Open-World Virtual Exploration**
Qi-fan Wu, Gaia Research Institute, Italy
Antonella Arcangeli, ISPRA, Italy
Matteo Costantino, University of Torino, Italy
Livio Favaro, University of Torino, Italy
Marco Gamba, University of Torino, Italy
Cristina Giacomini, University of Torino, Italy
Guido Pietrolungo, University of Padova, Italy
Marta Azzolin, University of Torino, Italy
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Friday, October 6

Session 8.1 - Advanced modelling and measurement to reduce risk in port areas

Room: University of Malta - Valletta Campus - Aula Magna

357 Boat Monitoring and Classification System Utilizing Infrared and Visual Data Streams for Port Safety Enhancement

Luca Patanè, University of Messina, Italy
Fabrizio Corriera, University of Messina, Italy
Antonino Maio, University of Messina, Italy
Salvatore Graziani, University of Catania, Italy
Maria Gabriella Xibilia, University of Messina, Italy

363 Model Transferability for Wave Height Prediction

Luca Patanè, University of Messina, Italy
Claudio Iuppa, University of Messina, Italy
Luciano Canduci, University of Messina, Italy
Carla Faraci, University of Messina, Italy
Maria Gabriella Xibilia, University of Messina, Italy

369 Numerical Monitoring of Oil Spill Scenarios in Augusta Harbour

Federico Roman, University of Trieste, Italy
Francesco De Leo, University of Genova, Italy
Luca Cavallaro, University of Catania, Italy

374 Evaluation of Port Manoeuvring Efficiency Using Data Envelopment Analysis

Roberto Gueli, EHT SCpA, Italy
Alessio Barbaro Chisari, EHT SCpA, Italy
Otmane Mounouar, EHT SCpA, Italy
Wladimiro Carlo Patatu, EHT SCpA, Italy
Rosaria Ausilia Giandolfo, EHT SCpA, Italy
Emanuele Spampinato, EHT SCpA, Italy

380 Agent-Based Model for Realistic Vessel Route Simulation in Port Areas

Roberto Gueli, EHT SCpA, Italy
Antonio Amatore, EHT SCpA, Italy
Emanuele Salvatore Accardo, EHT SCpA, Italy
Miriam Raccuglia, EHT SCpA, Italy
Rosaria Ausilia Giandolfo, EHT SCpA, Italy
Emanuele Spampinato, EHT SCpA, Italy

Session 8.2 - Generation of added-value Products from Multi-Frequency and Multi-Scale Satellite Remote Sensing Measurements

Room: University of Malta - Valletta Campus - Meeting Room 102

385 SeaWinds-Derived Winds in Coastal Areas

Giuseppe Grieco, National Research Council, Italy
Ad Stoffelen, Koninklijk Nederlands Meteorologisch Instituut, The Netherlands
Anton Verhoef, Koninklijk Nederlands Meteorologisch Instituut, The Netherlands
Jur Vogelzang, Koninklijk Nederlands Meteorologisch Instituut, The Netherlands
Marcos Portabella, Institut de Ciències del Mar - CSIC, Spain

390 Multi-Frequency and Multi-Mission SAR Imagery for Maritime Surveillance by Deep Learning

Roberto Del Prete, University of Naples Federico II, Italy
Maria Daniela Graziano, University of Naples Federico II, Italy
Gennaromaria Crispino, University of Naples Federico II, Italy
Lorenzo Ostrogovich, University of Naples Federico II, Italy
Alfredo Renga, University of Naples Federico II, Italy

- 395 **A Spatio-Temporal Variability Assessment of the C33 Iceberg Using Multi-Polarisation C-Band SAR Satellite Data**
Mozhgan Zahriban Hesari, Parthenope University of Naples, Italy
Giovanna Inserra, Parthenope University of Naples, Italy
Giuseppe Aulicino, Parthenope University of Naples, Italy
Maurizio Migliaccio, Parthenope University of Naples, Italy
- 400 **On the Incidence Angle Dependence of Synthetic Aperture Radar Co-Polarisation Sea Surface Signature**
Muhammad Adil, Parthenope University of Naples, Italy
Farah Rasheed Abbasi, Parthenope University of Naples, Italy
Maurizio Migliaccio, Parthenope University of Naples, Italy
- 405 **Observing Inland Water Bodies by Means of X-Band Polarimetric SAR Imagery From Second Generation COSMO-SkyMed Constellation**
Giovanna Inserra, Parthenope University of Naples, Italy
Andrea Buono, Parthenope University of Naples, Italy
Ferdinando Nunziata, Parthenope University of Naples, Italy
Maria Virelli, Italian Space Agency, Italy
Maurizio Migliaccio, Parthenope University of Naples, Italy

Session 8.3 - Technologies, techniques and methodologies for coastal monitoring

Room: University of Malta - Valletta Campus - Meeting Room 103

- 410 **A Non-Invasive Laboratory Technique for Wave-Driven Plastic Debris Motion Detection**
Claudio Iuppa, University of Messina, Italy
Giovanni Passalacqua, University of Messina, Italy
David R. Fuhrman, Technical University of Denmark, Denmark
Carla Faraci, University of Messina, Italy
- 415 **Ice Cover Delineation Over Devon Iceland Using Sentinel Polarimetric SAR and Optical Data**
Muhammad Amjad Iqbal, University Politehnica of Bucharest, CEO SpaceTech, Romania
Andrei Anghel, University Politehnica of Bucharest, CEO SpaceTech, Romania
Mihai Datcu, German Aerospace Center, Germany
- 421 **A LoRaWAN Network for the Real-Time Monitoring of the Venice Lagoon: Preliminary Tests**
Matin Ghalkhani, University of Padova, Italy
Filippo Campagnaro, University of Padova, Italy
Alessandro Pozzebon, University of Padova, Italy
Davide De Battisti, University of Padova, Italy
Mauro Biagi, Sapienza University of Rome, Italy
Michele Zorzi, University of Padova, Italy
- 427 **Machine Learning Techniques Applied to RFID-Based Marine Sediment Tracking**
Matteo Bertocco, University of Padova, Italy
Duccio Bertoni, University of Pisa, Italy
Giacomo Peruzzi, University of Padova, Italy
Alessandro Pozzebon, University of Padova, Italy
Giovanni Sarti, University of Pisa, Italy
- 433 **A Technique for the Measurement of the Morphological Evolution of Marine Pebbles**
Duccio Bertoni, University of Pisa, Italy
Gabriele Di Renzone, University of Pisa, Italy
Gabor Domokos, Budapest University of Technology and Economics, Hungary
Chiara Favaretto, University of Padova, Italy
Alessandro Pozzebon, University of Padova, Italy
Giovanni Sarti, University of Pisa, Italy

Poster Session

Room: University of Malta - Valletta Campus

- 439 **Power Management and Reliability Analysis of Albacore: An AUV for Shallow Waters**
Enrico Petritoli, Università degli Studi "Roma Tre", Italy
Fabio Leccese, Università degli Studi "Roma Tre", Italy
- 444 **Field monitoring in coastal basin to detect annual trends of hydrodynamics and physical parameters**
Francesca De Serio, Polytechnic University of Bari, Italy
Diana De Padova, Polytechnic University of Bari, Italy
Michele Mossa, Polytechnic University of Bari, Italy
Mouldi Ben Meftah, Polytechnic University of Bari, Italy
- 449 **Artificial Intelligence-Based Machine Learning Data Classification for the Analysis of Underwater Noise of Ship Traffic and Bottlenose Dolphin Sounds**
Attila Aradi, University of Miskolc, Hungary
Attila Károly Varga, University of Miskolc, Hungary
- 454 **Phenological Monitoring of Cymodocea Nodosa (Tracheophyta, Alismatales) in the Transitional System Mar Piccolo of Taranto for the Detection of Anthropogenic Impact**
Antonella Petrocelli, Water Research Institute - National Research Council, Italy
Ester Cecere, Water Research Institute - National Research Council, Italy
Giovanni Fanelli, Water Research Institute - National Research Council, Italy
Fernando Rubino, Water Research Institute - National Research Council, Italy
Giuseppe Denti, Water Research Institute - National Research Council, Italy
- 459 **Do Hydrodynamic Changes Affect Abundances of the Striped Venus Clam? A Preliminary Analysis in the Southern Adriatic Sea**
Daniela Cascione, Polytechnic University of Bari, Italy
Diana De Padova, Polytechnic University of Bari, Italy
Michele Mossa, Polytechnic University of Bari, Italy
Vittoria Dragone, National Research Council, Italy
Giulia Cipriano, University of Bari, Italy
Maurizio Ingrosso, University of Bari, Italy
Roberto Carlucci, University of Bari, Italy
Pasquale Ricci, University of Bari, Italy
- 464 **Monitoring Sandy Shorelines Using SAR Imagery and LiDaR Measurements**
Giovanna Inserra, Parthenope University of Naples, Italy
Emanuele Ferrentino, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Andrea Buono, Parthenope University of Naples, Italy
Nicola Angelo Famiglietti, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Annamaria Vicari, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Raffaele Moschillo, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Luigi Falco, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Antonino Mammolo, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Felice Minichiello, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Gerardo Colangelo, Protezione Civile della Regione Basilicata, Italy
- 469 **Evaluation of a Clustering Algorithm to Enhance the Nearshore Wave Prediction System**
Elisa Castro, University of Catania, Italy
Claudio Iuppa, University of Messina, Italy
Rosaria Musumeci, University of Catania, Italy
Luca Cavallaro, University of Catania, Italy
Maria Gabriella Xibilia, University of Messina, Italy
Luca Patanè, University of Messina, Italy
Enrico Foti, University of Catania, Italy
- 474 **Waste Based Solutions for Preventing Water Pollution by Nitroarenes**
Piero Mastrorilli, Politecnico di Bari, Italy
Maria Stella Leone, Politecnico di Bari, Italy
Carlo Porfido, Università degli Studi di Bari, Italy
Roberto Terzano, Università degli Studi di Bari, Italy
Matilda Mali, Politecnico di Bari, Italy
Maria Michela Dell'Anna, Politecnico di Bari, Italy

- 478 **Study of Heavy Metal Effects on Skeletonema Sp. Diatoms**
Maria Antonietta Ferrara, ISASI-CNR, Italy
Elena Cavalletti, Stazione Zoologica Anton Dohrn, Italy
Vittorio Bianco, ISASI-CNR, Italy
Lisa Miccio, ISASI-CNR, Italy
Giuseppe Coppola, ISASI-CNR, Italy
Pietro Ferraro, ISASI-CNR, Italy
Angela Sardo, Stazione Zoologica Anton Dohrn, Italy
- 483 **Comparing Meanshift/SVM and Mask-RCNN algorithms for beach litter detection on UAVs images**
Angelo Sozio, University of Bari Aldo Moro, Italy
Vincenzo M Scarrica, Parthenope University of Naples, Italy
Pietro P. C. Aucelli, Parthenope University of Naples, Italy
Giovanni Scicchitano, University of Bari Aldo Moro, Italy
Antonino Staiano, Parthenope University of Naples, Italy
Angela Rizzo, University of Bari Aldo Moro, Italy
- 488 **A GIS-Based Geostatistical Approach for Palaeo-Environmental Reconstructions of Coastal Areas: The Case of the Cilento Promontory (Southern Italy)**
Alessia Sorrentino, Parthenope University of Naples, Italy
Antonio Maratea, Parthenope University of Naples, Italy
Gaia Mattei, Parthenope University of Naples, Italy
Gerardo Pappone, Parthenope University of Naples, Italy
Maria Francesca Tursi, Parthenope University of Naples, Italy
Pietro P. C. Aucelli, Parthenope University of Naples, Italy
- 494 **GIS Applications to Support Coastal Erosion Analysis: The Case Study of the Domitian Littoral**
Emanuele Alcaras, Parthenope University of Naples, Italy
Chiara Camerota, Parthenope University of Naples, Italy
Claudio Parente, Parthenope University of Naples, Italy
- 499 **Multispectral Derivated Bathymetry and Geophysical Approaches for Maltese Pocket Beach Characterization**
Sebastiano D'Amico, University of Malta, Malta
Adam Gauci, University of Malta, Malta
Luciano Galone, University of Malta, Malta
- 504 **GIS Driven Management of Maltese Pocket Beaches: Insights and Applications from the SIPOBED Project**
Sebastiano D'Amico, University of Malta, Malta
Luciano Galone, University of Malta, Malta
Emanuele Colica, University of Malta, Malta

Session 9.1 - Geomorphology in the Digital Age

Room: University of Malta - Valletta Campus - Aula Magna

- 508 **Assessment of Medicane Helios Meteo-Marine Parameters Using a Machine Learning Approach**
Giovanni Scardino, University of Bari Aldo Moro, Italy
Alok Kushabaha, University of Bari Aldo Moro, Italy
Gaetano Sabato, University of Bari Aldo Moro, Italy
Sebastiano Tarascio, University of Catania, Italy
Giovanni Scicchitano, University of Bari Aldo Moro, Italy
- 513 **Geomorphology in the Digital Age: A Case Study Project of Quantitative Geomorphology From Images**
Anselme Muzirafuti, University of Messina, Italy
Stefania Lanza, Geologis srl, Italy
Diego Paltrinieri, CoReMa Spiagge srl, Italy
Giancarlo Faina, CoReMa Spiagge srl, Italy
Mohammed El Hafyani, Moulay Ismail University, Morocco
Giovanni Randazzo, University of Messina, Italy

519 Integrated Geomorphological and Structural Analysis of Coastal Cliffs: The Case Study of Capo Faro Promontory, NE Salina, Aeolian Islands, Italy

Mauro Bonasera, Italian Institute for Environmental Protection and Research, Italy
Alessandro Petroccia, University of Turin, Italy
Fabiola Caso, University of Milan, Italy
Ciro Cerrone, Ca' Foscari University of Venice, Italy
Francesco Gregorio, University of Messina, Italy

524 Deep Learning-Based Segmentation Techniques for Coastal Monitoring and Seagrass Banquette Detection

Gaetano Sabato, University of Bari Aldo Moro, Italy
Giovanni Scardino, University of Bari Aldo Moro, Italy
Alok Kushabaha, University of Bari Aldo Moro, Italy
Marco Chirivi, CETMA Centro di Ricerca Europeo di Tecnologie Design e Materiali, Italy
Antonio Luparelli, CETMA Centro di Ricerca Europeo di Tecnologie Design e Materiali, Italy
Giovanni Scicchitano, University of Bari Aldo Moro, Italy

Session 9.2 - General Session - PART IV

Room: University of Malta - Valletta Campus - Meeting Room 102

528 Early Detection of Partially Emerged Large Scale Marine Debris Based on Laser Pulses

Marco Marcon, Politecnico di Milano, Italy
Carlo Pezzoli, Politecnico di Milano, Italy
Marco Compagnoni, Politecnico di Milano, Italy
Marco Brando Mario Paracchini, Politecnico di Milano, Italy
Giancarlo Bernasconi, Politecnico di Milano, Italy
Claudia Nicastro, Sapienza University of Rome, Italy
Stefano Tubaro, Politecnico di Milano, Italy

534 Comparison of Passive Acoustic Monitoring Sensors for Direction of Arrival Estimation of Underwater Acoustic Sources

Alessandro Gentili, University of Pisa, Italy
Alessia Biondi, University of Pisa, Italy
Andrea Caffaz, Graal Tech Srl, Italy
Andrea Caiti, University of Pisa, Italy
Riccardo Costanzi, University of Pisa, Italy
Marco Gambetta, Graal Tech Srl, Italy
Andrea Munafò, University of Pisa, Italy

540 SAR Beyond the Spatial Resolution Limit

Maurizio Migliaccio, Parthenope University of Naples, Italy
Giovanna Inserra, Parthenope University of Naples, Italy
Anna Verlanti, Università Degli Studi di Cagliari, Italy
Farah Rasheed Abbasi, Parthenope University of Naples, Italy
Mozhgan Zahriban Hesari, Parthenope University of Naples, Italy
Andrea Buono, Parthenope University of Naples, Italy

545 Navigation and Control Systems for a Reconfigurable Underwater Vehicle for Inspection, Free-Floating Intervention and Survey Tasks

Mirco Vangi, University of Florence, Italy
Edoardo Topini, University of Florence, Italy
Gherardo Liverani, University of Florence, Italy
Alessandro Ridolfi, University of Florence, Italy
Benedetto Allotta, University of Florence, Italy