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WORKSHOP PROGRAM

Monday, October 14

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391   **Investigation of Marine Phytoplankton by In-Flow Holographic Tomography**
       Francesca Borrelli (ISASI-CNR, Italy); Giusy Giugliano (Institute of Applied Sciences and Intelligent Systems "E. Caianiello", National Research Council, Italy); Jaromir Behal (UNINA, Italy); Daniele Pirone (CNR-ISASI, Italy); Leonilde Roselli, Angela Sardo, Emilie Houliez, Valerio Zupo and Maria Costantini (Stazione Zoologica Anton Dohrn, Italy); Lisa Miccio (CNR-ISASI, Italy); Pasquale Memmolo (CNR-ISASI Institute of Applied Sciences & Intelligent Systems, Italy); Vittorio Bianco (CNR-ISASI, Italy); Pietro Ferraro (ISASI CNR, Italy)

396   **Multispectral Imaging as a Tool for Identifying Spectral Responses of Different Plastic Materials**
       Giovanni Piccolo, Giovanni Bragato, Sofia Marchetto, Simone Marchetti, Rebecca Legnaro and Cinzia Sada (University of Padova, Italy)

401   **Deploying the Imaging FlowCytobot in the Mediterranean Sea and Developing a Trait-Based Classifier for High Frequency Screening of Phytoplankton Traits and Dynamics**
       Emilie Houliez, Melpomeni Sofia Mente, Diana Sarno, Eleonora Scalco, Teresa Romeo, Augusto Passarelli and Leonilde Roselli (Stazione Zoologica Anton Dohrn, Italy)

405   **A Multi-Platform Approach to Investigate the Signals of Atlantification in the Arctic**
       Manuel Bensi (National Institute of Oceanography and Applied Geophysics - OGS, Italy); Helene Olsen (University of the Basque Country, Italy); Vedrana Kovacevic (National Institute of Oceanography and Applied Geophysics, OGS, Italy); Patrizia Giordano and Leonardo Langone (National Research Council, Italy)

Wednesday, October 16

Session 7.1 - Technologies, techniques and methodologies for coastal monitoring - PART I
Room: Grand Hotel Bernardin - Room Europa A

411 **An Integrated Approach to Monitoring the Climate Change Effects in the Faro Lake (Messina) as Area of Concern for Mussel Farming Activities**
Carmen Rizzo (Stazione Zoologica Anton Dohrn, Italy & National Research Council, Institute of Polar Sciences, Italy); Chiara Giommi, Rosario Calogero, Erika Arcadi, Giuseppe Cangemi, Francesco Fabiano, Vittoria Dias, Marilena Sanfilippo and Teresa Romeo (Stazione Zoologica Anton Dohrn, Italy)

417 **Enhancing IoT Cloud Infrastructure and Data Visualization for Real-Time Monitoring of the Venice Lagoon With SENSWICH**
Matin Ghalkhani, Federico Marin, Filippo Campagnaro and Michele Zorzi (University of Padova, Italy)

423 **Investigation on the Partitioning of Sea Spectra**
Marta Berardengo (Università di Genova, Italy); Giovanni Battista Rossi and Francesco Crenna (University of Genova, Italy)

Session 7.3 - Innovative Approaches in Conservation Strategies For Sedentary Marine Fishes
Room: Grand Hotel Bernardin - Room Europa D

428 **Assessment of Innovative Selective Codends in Baltic Cod Fishing**
Pawel Zalewski, Piotr Nowakowski, Jarosław Artyszuk, Krzysztof Berest, Grzegorz Krzemień, Artur Żuliński and Marta Kasprowicz (Maritime University of Szczecin, Poland)

434 **Opercular Beat Frequency of Long-Snouted Seahorse, Hippocampus Guttulatus Cuvier 1829**
Marco Spoto (University of Bologna, Italy & National Research Council, Italy); Cataldo Pierri (Università degli Studi di Bari Aldo Moro, Italy); Alessandro Rinaldi (CNR, Italy); Miriam Ravisato (University of Bari, Italy); Maria Chiara Catta (CNR, Italy); Michele Gristina (National Research Council of Italy, Italy)

438 **Taxonomic Identification of European Seahorse H. Guttulatus and H. Hippocampus Based on Machine Learning Techniques**
Marco Spoto (University of Bologna, Italy & National Research Council, Italy); Daniele Lagomarsino-Oneto (CNR, Italy); Michele Gristina and Simone Marini (National Research Council of Italy, Italy); Cataldo Pierri (Università degli Studi di Bari Aldo Moro, Italy); Alessandro Rinaldi and Mattia Cavaiola (CNR, Italy)

444 **Length-Weight Relationships of Two Syngnathid Species From the Mar Piccolo of Taranto, Southern Italian Coast**
Miriam Ravisato (University of Bari Aldo Moro, Italy); Francesca Gaia Bitetto (Stazione Zoologica Anton Dohrn, Italy); Tamara Lazic (University of Bari Aldo Moro, Italy); Michele Gristina (National Research Council of Italy, Italy); Marco Spoto (University of Bologna, Italy & National Research Council, Italy); Cataldo Pierri (Università degli Studi di Bari Aldo Moro, Italy)

Poster Session 2
Room: Grand Hotel Bernardin

448 **Validation of Reported Strong Currents in Mamaia Bay (Black Sea) Using Sentinel-1 SAR Data**
Muhammad Amjad Iqbal (CEOSpaceTech, Research Center for Spatial Information, Romania & National University of Science and Technology Politehnica of Bucharest, Romania); Andrei Anghel (National University of Science and Technology Politehnica of Bucharest & Center for Spatial Information (CEOSpaceTech), Romania); Mihai Datcu (National University of Science and Technology Politehnica of Bucharest, Romania)

454 **Towed Underwater Drones: Main Operative Problems and Analysis of Stability**
Enrico Petritoli (Università degli Studi "Roma Tre", Italy); Fabio Leccese ("Roma Tre" University, Italy)

459 **Water Laboratory: A Matrix Analysis System**

Enrico Petritoli (Università degli Studi "Roma Tre", Italy); Eduardo De Francesco (SETEL, Italy); Nicola Pio Belfiore (Roma Tre University, Italy); Sara Bobone (Esseodue, Italy); Giuseppe Schirripa Spagnolo (University of "Roma Tre", Italy); Simonetta Tuti and Fabio Leccese ("Roma Tre" University, Italy)

464 **Passive Absolute Distance Estimation for Maritime Navigation**

Jon Muhovič (University of Ljubljana, Slovenia); Janez Perš (University of Ljubljana, European Union)

469 **Hybrid GAN and Fourier Transformation for SAR Ocean Pattern Image Augmentation**

Mobina Keymasi (National University of Science and Technology Politehnica Bucharest, Romania); Omid Ghozatlou (CEOSpaceTech & Reply Technology, Romania); Emmanuel Weridongha Adueze (Constanta Maritime University, Romania); Mihai Datcu (National University of Science and Technology Politehnica of Bucharest, Romania)

475 **On the Fine Scale Estimation of Coastal Wind Speed in the Gulf of Salerno Using the Azimuth Cut-Off Approach**

Giovanna Inserra (Consiglio Nazionale delle Ricerche, Italy); Giuseppe Grieco (National Research Council, Italy); Adil Muhammad and Mauro Caccavale (Consiglio Nazionale delle Ricerche, Italy); Maurizio Migliaccio (Universita' Napoli Parthenope, Italy); Katrin Schroeder (Consiglio Nazionale delle Ricerche, Italy)

480 **GNSS Interference Observations in Port of Koper**

Matej Bažec and Franc Dimc (University of Ljubljana, Slovenia)

484 **Offshore Wind Power and Aquaculture in the Canary Islands**

Vittoria Puzone (University of Napoli Parthenope, Italy); Daniel Guerra-Medina (University of Las Palmas de Gran Canaria, Spain); Guido Benassai (University Parthenope, Italy); Germán Alejandro Rodríguez (University of Las Palmas de Gran Canaria, Spain)

490 **Cartographic Representation of the Italian Coasts: Analysis of Deformations Due to the Chosen Map Projection**

Francesca Guastaferro (Almaviva Digitaltec, Italy); Davide Morale (University of Naples Parthenope, Italy); Claudio Parente (University of Studies of Naples Parthenope, Italy); Giuseppina Prezioso (University of Naples Parthenope, Italy); Andrea Vallario (Parthenope University of Naples, Italy)

495 **A Significant Wave Height Data-Driven Modeling for Digital Twins of Marine Environment**

Arman Neyestani (University of Sannio, Italy); Daniel M Toma (Technical University of Catalonia, Spain); Ahmad Falahzadeh (Universitat Politecnica de Catalunya (UPC), Spain); Pasquale Daponte (University of Sannio, Italy); Joaquin del Rio (Universitat Politecnica de Catalunya, Spain); Luca De Vito (University of Sannio, Italy)

Session 8.1 - Technologies, techniques and methodologies for coastal monitoring - PART II

Room: Grand Hotel Bernardin - Room Europa A

501 **A Multi-Stage Model for Dissolved Oxygen Monitoring of Coastal Seawater**

Vito Ferri and Sele Okeoghene Thomas (Politecnico di Torino, Italy); Andrea Bordone and Giancarlo Raiteri (ENEA Marine Environment Research Centre of S. Teresa, Italy); Tiziana Ciuffardi (ENEA, Italy); Chiara Lombardi (ENEA Marine Environment Research Centre of S. Teresa, Italy); Chiara Petrioli (WSense & Sapienza University - Computer Engineering Department, Italy); Daniele Spaccini and Petrika Gjanci (University of Rome "La Sapienza", Italy); Francesca Romana Pennecchi (Istituto Nazionale di Ricerca Metrologica - INRIM, Italy); Marco Coisson and Gianfranco Durin (Istituto Nazionale di Ricerca Metrologica, Italy)

507 **Energy Harvest With WAVE. at Sea Trials and Preliminary Results**

Lorenzo Bazzarello and Alessandro Collevecchio (Italian Navy, Italy); Davide Cosimo (University of Pisa, Italy); Daniele Di Vito (University of Cassino, Italy); Giuseppe Gillini (Everybotics sr, Italy); Gianluca Antonelli (University of Cassino, Italy); Andrea Caffaz (Graal Tech, Srl, Portugal); Andrea Traverso (UNIGE, Italy)

512 **Fear of the Dark: Exploring PV-Powered IoT Nodes for VLC and Energy Harvesting**

Matteo Bertocco, Alessandro Brighente, Giacomo Peruzzi and Alessandro Pozzebon (University of Padova, Italy); Noah Tormena (University of Padua, Italy); Nicola Trivellin (UNIPD, Italy)

518   **Comparison of Wave Parameters Using Multitaper Power Spectral Density Estimation and the Welch Method**
Gabriele Nardone (ISPRA, Italy); Giovanni Battista Rossi (University of Genova, Italy); Marco Picone (ISPRA, Centro Nazionale per la Protezione della Fascia Costiera, la Climatologia, Italy); Francesco Crenna (University of Genova, Italy); Carlo Lo Re (ISPRA, Italy); Mohamad Khalil (University of Genova, Italy)

Session 8.2 - Remote sensing, in-situ surveys, and GIS applications for marine and coastal areas - PART II
Room: Grand Hotel Bernardin - Room Europa C

524   **Application of NDWI and Machine Learning Techniques for Shoreline Extraction**
Oktawia Specht (Gdynia Maritime University, Poland)

529   **Developing a GIS Framework for Effective Weather Routing in the Tyrrhenian Sea**
Emanuele Alcaras (Parthenope University of Naples, Italy); Giorgio Budillon (Pathenope University of Naples, Italy); Yuri Cotroneo (Università degli Studi di Napoli Parthenope, Italy); Diana Di Luccio (University Parthenope, Italy); Raffaele Montella (University of Naples Parthenope, Italy); Claudio Parente (University of Studies of Naples Parthenope, Italy)

535   **Preliminary Results of TErra NOva Bay Polynya High Resolution Experiment (TENORE) Project**
Giannetta Fusco (Parthenope University of Naples, Italy); Simone Di Palma and Massimiliano Esposito (University of Naples Parthenope, Italy); Giuseppe Aulicino (Parthenope University of Naples, Italy); Giorgio Budillon (Pathenope University of Naples, Italy); Yuri Cotroneo (Università degli Studi di Napoli Parthenope, Italy)

541   **GIS Based Analysis and Accuracy Estimation of Sea Surface Temperature From MODIS Thermal Images**
Davide Morale (University of Naples Parthenope, Italy); Ugo Falchi (Parthenope University of Naples, Italy); Paola Mercogliano (Centro Euro-Mediterraneo sui Cambiamenti Climatici, Italy); Claudio Parente (University of Studies of Naples Parthenope, Italy)

Session 8.3 - Exploring the Depths: Progress and Challenges in Surveying Underwater Environments
Room: Grand Hotel Bernardin - Room Europa D

546   **Metrology for Underwater Acoustics: Rethinking Measurement Strategies for the Assessment of the Environmental Status**
Pier Francesco Moretti (National Research Council of Italy, Italy); Angela Pomaro (Sapienza University of Rome & National Research Council of Italy, Institute of Marine Sciences, Italy); Silvano Buogo (National Research Council of Italy, Institute of Marine Engineering, Italy)

552   **Monitoring Fish Diversity: A Case Study Using Remote Underwater Video Surveys in the Aegean Sea**
Jude Hamilton (Queen's University Belfast, United Kingdom (Great Britain)); Nia Stephens (University of Exeter, United Kingdom (Great Britain)); Maurice Calton Seal and Anastasia Miliou (Archipelagos Institute of Marine Conservation, Greece); Laura Macrina (King Abdullah University of Science and Technology (KAUST), Saudi Arabia & KAUST Red Sea Research Center, King Abdullah University of Science and Technology, Saudi Arabia)

558   **A Multi-Beam Forward-Looking Sonar Simulator Based on Unity3D**
Alessandro Gentili and Eleonora D'agostino (Università di Pisa, Italy); Caterina Pieri (Univerìstà di Pisa, Italy); Matteo Telesca and Lorenzo Pollini (Università di Pisa, Italy); Andrea Caiti (University of Pisa, Italy); Riccardo Costanzi (Università di Pisa, Italy)

564   **Smart - PUFFIN Project Smart Positioning Underwater System for Environmental Field Using Artificial Intelligence**
Silvio Del Pizzo (University of Naples Parthenope, Italy); Antonio Angrisano (Messina University, Italy); Fabio Narducci (University of Salerno, Italy); Ciro Gioia (University of Naples "Parthenope", Italy); Benedetto Simone (University of Salerno, Italy); Salvatore Troisi (University of Naples Parthenope, Italy)

Aditonal Paper