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Welcome Message

On behalf of the Organizing Committee, we cordially welcome you to the **2018 IEEE International Workshop on Metrology for the Sea** (MetroSea 2018).

The Sea is the medium that allowed people to travel from one continent to another using vessels and even today despite the use of aircraft. It has been acting also as a great reservoir and source of foods for all living beings. However, for many generations it served as a landfill for depositing conventional and nuclear wastes, especially in its deep seabeds and there is a race to exploit minerals and resources, different from foods, encompassed in it. Its health is a very challenge for the survival of all humanity since it is one the most important environmental components targeted by the global warming.

So, "*Learning to measure sea health parameters*" is a challenge for the whole humanity. This is underlined by the growing interest for the marine sciences. In this field new technologies and analysis techniques have recently improved the combined use of numerical approach and metrology systems to get more detailed marine data. For example, advances in computer science, data acquisition and modelling, new spectrometric techniques, analysis and remote sensing have encouraged interactions among these scientific disciplines based on measurement data and marine data interpretations.

The benefits of a multidisciplinary approach have reduced the level of uncertainty in marine technical studies. The *2018 IEEE International Workshop on Metrology for the Sea* aims to gather people who work in developing instrumentation and measurement methods for the sea. Attention is paid, but not limited to, new technology for sea environment monitoring, metrology-assisted production in sea industry, ship component measurement, sensors and associated signal conditioning for the sea, and calibration methods for electronic test and measurement for marine applications.

This edition of *MetroSea* will be held at University of Bari "*Aldo Moro*". Bari is the capital city of the province of Bari and of the Apulia (or, in Italian, Puglia) region, on the Adriatic Sea. It is the second most important economic centre of mainland Southern Italy after Naples, and is well known as a port and university city, as well as the city of Saint Nicholas.

We are sure that the universally recognized beauty of Bari will be a perfect frame for this prestigious workshop. It is, in fact, a further occasion, not only to meet old friends and new people from all over the world, but, moreover, to engage with them a continuous comparison directed to make wider the views on the technological progress of Metrology for the Sea.

The *MetroSea* organization was a complex task due to the large and increasing interest of our research and application areas. Efforts from many people were required to shape the technical program, arrange accommodation, manage the administrative aspects, and set up the social functions. We like to take this opportunity to thank all and each of them. We like also to thank the public and private organizations that supported the meeting in different ways. Special thank to Italian Navy for the official support to the event and the attending of Italian Navy experts to the Technical Program.

The *MetroSea* Technical Program consists of 16 oral, poster and demo sessions scheduled over two days. The technical program encompasses several events and activities. With the wide range of technical sessions covering the many fields of metrology for the sea we are happy to welcome you to the variety of technical presentations that await you this year.

Thanks to all of the Technical Program Committee members and the reviewers who have contributed to make this outstanding program possible. We wish to highlight that the papers published on the Proceedings of the Workshop will be included in Scopus and Compendex data bases. All contributions have been peer reviewed on the basis of an abstract and acceptance was based on quality, originality and relevance.

Accepted papers have been published in the Workshop Proceedings and expanded versions of presented papers are eligible for publication, on MBDI Sensors Journal.

The keynote speeches will be held by experts in the field of metrology for the sea; **Dr Henry Vallius**, from Geological Survey of Finland, Finland, will speak about "*The EMODNET-Geology project – harmonizing geological maps of the European seas*", **Prof. Rosaria E. Musumeci**, University of Catania, Italy will present "*Measurement needs in the field of coastal engineering at laboratory scale*". We are honored to have them as plenary speakers and thank them in advance for coming to our conference to share their knowledge and experiences with us.

Furthermore, attendees have the possibility to follow tutorials about the role of measurements for the sea that will be held on October 8. In particular, three sessions will be offered on:

- INTRODUCTION TO MEASUREMENTS, *Prof. Mario Savino, Polytechnic of Bari, Italy;*
- CETACEANS AS A SENTINEL SPECIES OF THE CONSERVATION STATUS OF MARINE ECOSYSTEM, *Prof. Roberto Carlucci, University of Bari "Aldo Moro", Italy;*
- MEASUREMENT OF THE OPERATIONAL AVAILABILITY, *Eng. Eduardo De Francesco, SeTeL srl, Italy and Prof. Fabio Leccese, University of "Roma Tre", Italy.*

With the aim of providing a common ground for researches to share their findings about the metrology for the sea, the conference includes a significant number of Special Sessions. A first reason is that so many are the application fields of the metrology for the sea that a single track could have been too much dispersive. A second reason is that, in spite of a centralized research address definition, a spontaneous aggregation of well-focused themes has been gathered, with specific aim of providing a forum of dedicated debate very close to the single research field. Therefore, some application-oriented Special Sessions have been organized. We wish to thank the organizers of these Special Sessions for their cooperation and support to the conference organization.

The *2018 IEEE International Workshop on Metrology for the Sea* is about to begin. You are now in a position to enjoy the fellowship of colleagues and experts and to pass free time in natural and artistic beauties. It is up to you to appreciate the conference worth! Be critical! We, metrologists, sea experts, engineers, colleagues, and friends, all know that this is the best way to improve quality, and to achieve lasting excellences.

*Angelo Tursi
Mario Savino
Pasquale Daponte*

Committee

GENERAL CHAIRS

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Aimé Lay-Ekuakille, *University of Salento, Italy*
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Sabino Maggi, *IRSA - CNR, Italy*
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Leo Van Biesen, *Vrije Universiteit Brussel, Belgium*
Jari Walden, *Finnish Meteorological Institute, Finland*
Sunao Yamashita, *DKK-TOA Corporation, Japan*

Location



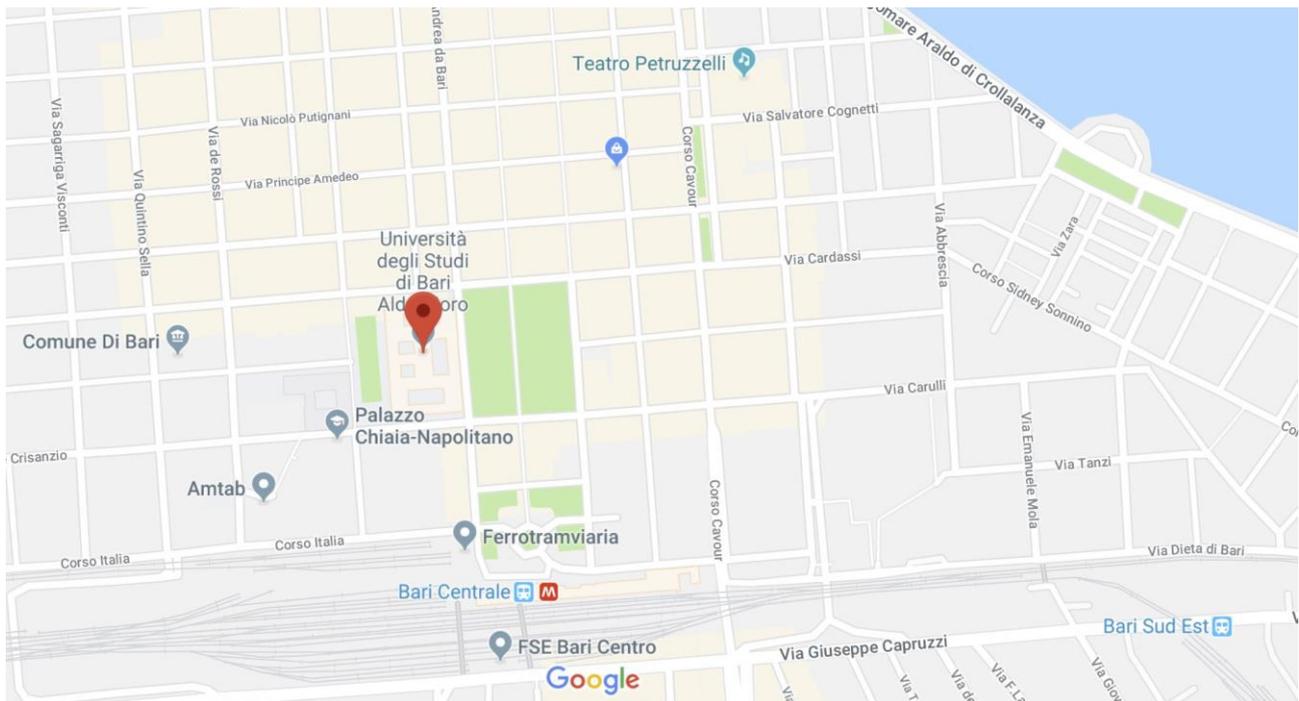
Conference Halls

**PALAZZO ATENEO
UNIVERSITY OF BARI**

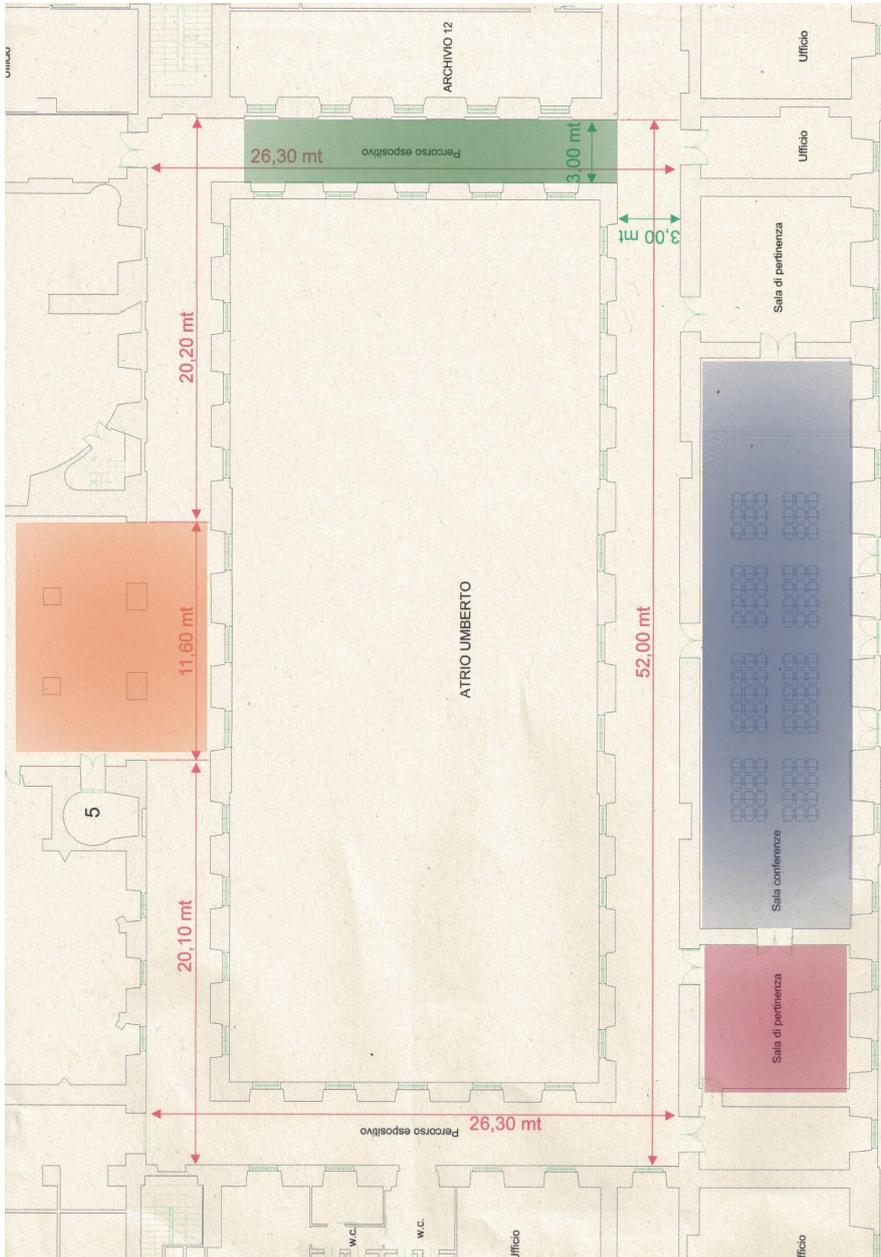
*Salone degli Affreschi
Sala delle Aquile*

Piazza Umberto I, 1 - Bari

MAP



Planimetry



LEGEND

- Salone degli Affreschi
- Sala delle Aquile
- Poster and Demo Session
- Colonnato

MetroSea 2018 Keynote Speakers

Keynote Tuesday, October 9, 2018

The EMODNET-Geology project – harmonizing geological maps of the European seas

Henry Vallius

Geological Survey of Finland (GTK), Finland

ABSTRACT. Proper maritime spatial planning, coastal zone management, management of marine resources, environmental assessments and forecasting require good seabed maps. There is also a need to support the objectives to achieve Good Environmental Status in Europe's seas by 2020, as set up by the European Commission's Marine Strategy Framework Directive. Consequently already in 2008 the European Commission established the European Marine Observation and Data Network (EMODnet), which is now in its third phase. The EMODnet concept is to assemble existing but often fragmented and partly inaccessible marine data into harmonized, interoperable and publicly freely available information layers which encompass whole marine basins. As the data and data products are free of restrictions on use the program is supporting any European maritime activities in promotion of sustainable use and management of the European seas.

The whole package of separate EMODNET- projects ("lots") covers the marine disciplines geology, chemistry, biology, bathymetry, seabed habitats, physics, human activities, sea basin check-points as well as a data ingestion project.

In this third phase the EMODnet-Geology project is delivering integrated geological map products that include seabed substrates, sediment accumulation rates, seafloor geology including lithology and stratigraphy, geomorphology, coastal behavior, geological events such as submarine slides and earthquakes as well as marine mineral resources and as a new feature map products on submerged landscapes of the European continental shelf at various time-frames. All new map products are presented at a scale of 1:100,000 all over but finer where the underlying data permit. A multi-scale approach will be adopted whenever possible.



Henry Vallius is a marine geologist with a Ph.D. in geochemistry of Baltic Sea sediments and works as senior scientist at the Geological Survey of Finland. He has over 25 years of experience in marine science from research cruises in the Baltic Sea as well as the Atlantic Ocean. He acts as the coordinator of the EU funded EMODnet Geology project, which deals with collection and harmonization of marine data from European countries. He also chairs the EuroGeoSurveys Marine Geology Expert Group and has a position as adjunct professor in marine geology and marine geochemistry at Åbo Akademi University, Finland.

Keynote Wednesday, October 10, 2018

Measurement needs in the field of coastal engineering at laboratory scale

Rosaria E. Musumeci
University of Catania, Italy

ABSTRACT. The solution to coastal engineering problems relies on the possibility to understand and quantify very complex problems which occur mainly in the nearshore region, such as the mutual interactions of waves and currents with sandy and rocky bottoms as well as with a great variety of coastal structures, ranging from rigid smooth seawall up to rubble mound breakwaters and artificial nourishment. Lately a great attention has been devoted also to the flow interaction with biota, both vegetation and fauna. In order to design reliable and sustainable solutions for coastal problems, such as coastal flooding and erosion, the capacity of numerical modelling is still limited, whereas field studies as well as laboratory analyses allow to better catch the complexity of the processes. In particular, lab investigations carried out in well-controlled experimental conditions are often preferred to obtain more general answers to fundamental research and engineering questions. In this context, the demand for improving the present measurement capability in physical models is high, as demonstrated by the work done within the Hydralab network, an integrated infrastructure initiative funded by the European Commission, which since more than 20 years provides access to unique large-scale experimental facilities. Building on such an experience, the need to push forward present measuring instruments, methodologies and protocols will be discussed, as well as recent developments of measurement approaches based on innovative materials and technologies.



Rosaria E. Musumeci is a Assistant Professor of Hydraulics at the Department of Civil Engineering and Architecture of the University of Catania, with a PhD in Hydraulic Engineering. Her research interests are in the field of coastal hydro-morphodynamics, with a focus on development of innovative measurement techniques in the presence of sandy bottoms and coastal structures. In this context, she is actively involved in the research projects funded by EU (e.g. HYDRALAB+, NEWS, Interreg Italia-Malta; etc.), and by national funding agencies.

Social Events

Welcome Reception

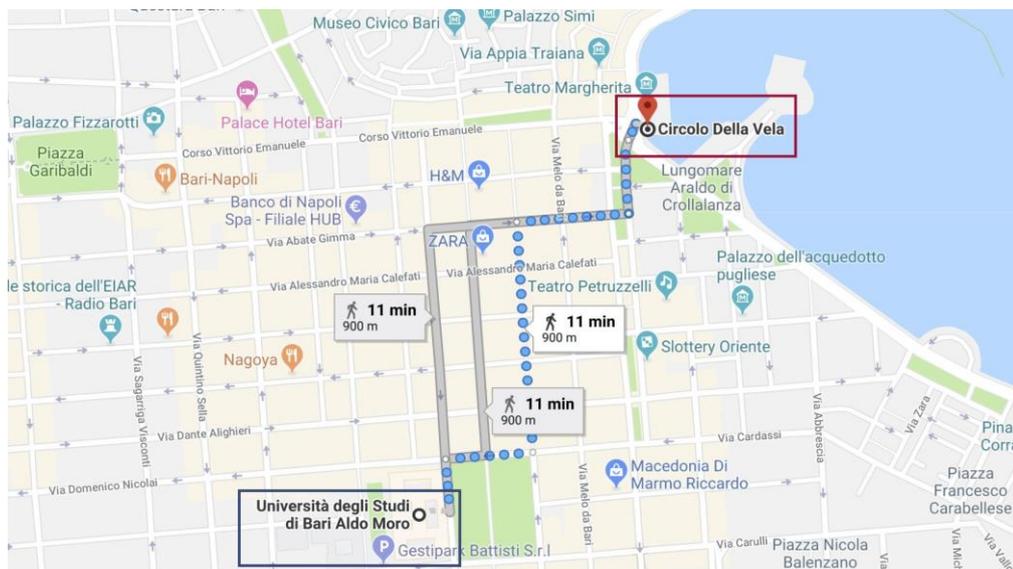
The Welcome Reception will be held at Palazzo Ateneo, University of Bari, on October 8 at 17.45.



Gala Dinner

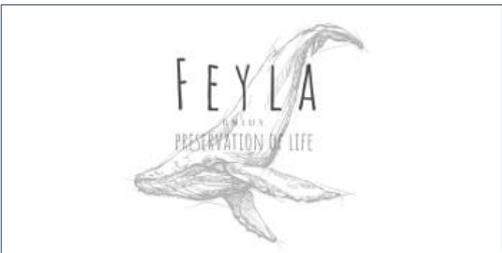
The Gala Dinner will be held at Circolo della Vela – molo Borbonico, on October 9 at 20.00

IMPORTANT: In order to reach the Gala Dinner Venue, a shuttle bus will be provided. The time and place of the meeting point will be announced at the Registration Desk.

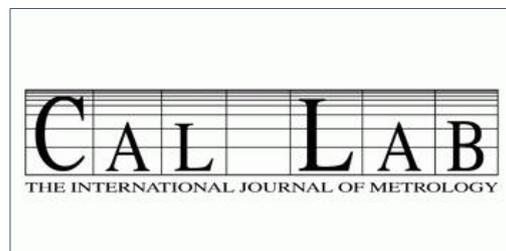
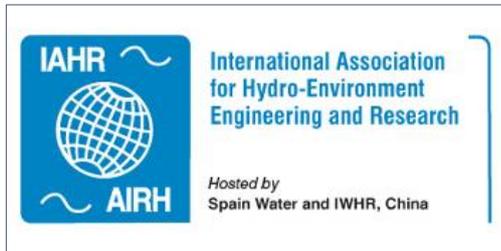


Patronages





In Collaboration With



Tutorials - Monday, October 8, 2018

2018 IEEE INTERNATIONAL WORKSHOP ON METROLOGY FOR THE SEA MONDAY, OCTOBER 8, 2018	
15:00 - 17:00	REGISTRATION - <i>University of Bari, Palazzo Ateneo First Floor, Colonnato</i>
15:00 - 17:15	TUTORIALS <i>Place: University of Bari, Palazzo Ateneo First Floor, Salone degli Affreschi</i> Chair: Pasquale Daponte, <i>University of Sannio, Italy</i>
15:00 – 15:45	SESSION 1 Introduction to measurements <i>Prof. Mario Savino, Polytechnic University of Bari, Italy</i>
15:45 – 16:30	SESSION 2 Cetaceans as a sentinel species of the conservation status of marine ecosystem <i>Prof. Roberto Carlucci, University of Bari Aldo Moro, Italy</i>
16:30 – 17:15	SESSION 3 Measurement of the operational availability <i>Eng. Eduardo De Francesco, Se.Te.L. srl</i> <i>Eng Fabio Leccese, Università degli Studi “Roma Tre”</i>
17:45 - 18:45	Welcome Reception <i>Place: University of Bari, Palazzo Ateneo First Floor, Colonnato</i>

Program Schedule - Tuesday, October 9, 2018

8:30 - 17:30	REGISTRATION - <i>University of Bari - Palazzo Ateneo - First Floor, Colonnato</i>		
9:00 - 9:30	WELCOME ADDRESSES - <i>Palazzo Ateneo - First Floor, Salone degli Affreschi</i>		
9:30 - 10:30	<p align="center">INVITED SPEECH - Dr Henry Vallius <i>"The EMODNET-Geology project – harmonizing geological maps of the European seas"</i> <i>Palazzo Ateneo - First Floor, Salone degli Affreschi</i> <i>Chair: Prof. Angelo Tursi, University of Bari, Italy</i></p>		
10:30 - 11:00	COFFEE BREAK - <i>Palazzo Ateneo - First Floor, Colonnato</i>		
	<i>University of Bari - Palazzo Ateneo First Floor, Salone degli Affreschi</i>	<i>University of Bari - Palazzo Ateneo First Floor, Sala delle Aquile</i>	<i>Palazzo Ateneo First Floor</i>
11:00 - 12:40	<p align="center">SESSION 1.1</p> <p>Special Session on Measurements in riverine, estuarine and coastal areas - PART I</p> <p>Chairs: <i>Michele Mossa, Lorenzo Cappiotti</i></p>	<p align="center">SESSION 1.2</p> <p>Special Session on Underwater Measurement for 3D Characterization of Subsea Objects</p> <p>Chair: <i>Enrico Primo Tomasini</i></p>	POSTERS
12:40 - 14:00	LUNCH - <i>Palazzo Ateneo - First Floor, Colonnato</i>		
14:00 - 14:30	<p align="center">Copernicus Marine Service - <i>Dr Giovanni Coppini</i> <i>Place: Palazzo Ateneo - First Floor, Salone degli Affreschi</i></p>		
14:30 - 16:10	<p align="center">SESSION 1.3</p> <p>Special Session on Measurements in riverine, estuarine and coastal areas - PART II</p> <p>Chairs: <i>Michele Mossa, Lorenzo Cappiotti</i></p>	<p align="center">SESSION 1.4</p> <p>Special Session on Metrological Traceability of Oceanic Parameters</p> <p>Chairs: <i>F. Rolle, P. Alberto Giuliano Albo</i></p>	LIVE DEMOS
16:10 - 16:30	COFFEE BREAK - <i>Palazzo Ateneo - First Floor, Colonnato</i>		
16:30 - 18:10	<p align="center">SESSION 1.5</p> <p>Special Session on Measurements in riverine, estuarine and coastal areas - PART III</p> <p>Chairs: <i>Michele Mossa, Lorenzo Cappiotti</i></p>	<p align="center">SESSION 1.6</p> <p>Special Session on Innovative solutions for marine mammals and sea-turtles monitoring - PART I</p> <p>Chairs: <i>R. Carlucci, R. Maglietta, M. Azzolin</i></p>	
20:00 - 23:00	<p align="center">GALA DINNER Circolo della Vela, Molo Borbonico - Bari</p>		

Program Schedule - Wednesday, October 10, 2018

9:00 - 15:00	REGISTRATION - <i>University of Bari - Palazzo Ateneo - First Floor, Colonnato</i>		
9:00 - 9:50	<p align="center">INVITED SPEECH – Prof. Rosaria E. Musumeci <i>“Measurement needs in the field of coastal engineering at laboratory scale”</i> <i>Palazzo Ateneo - First Floor, Salone degli Affreschi</i></p>		
	<i>University of Bari - Palazzo Ateneo First Floor, Salone degli Affreschi</i>	<i>University of Bari - Palazzo Ateneo First Floor, Sala delle Aquile</i>	<i>Palazzo Ateneo First Floor</i>
9:50 - 11:10	<p align="center">SESSION 2.1 GENERAL SESSION PART I Chair: <i>Aimè Lay-Ekuakille</i></p>	<p align="center">SESSION 2.2 Special Session on Acquisition, processing and interpretation of marine geology data Chairs: <i>M.R. Senatore, D.D. Insinga</i></p>	POSTERS
11:10 - 11:40	COFFEE BREAK - <i>Palazzo Ateneo - First Floor, Colonnato</i>		
11:40 - 13:20	<p align="center">SESSION 2.3 Special Session on Innovative solutions for marine mammals and sea-turtles monitoring - PART II Chairs: <i>R. Carlucci, R. Maglietta, M. Azzolin</i></p>	<p align="center">SESSION 2.4 GENERAL SESSION PART II Chair: <i>Anna Lanzolla</i></p>	
13:20 - 14:30	LUNCH - <i>Palazzo Ateneo - First Floor, Colonnato</i>		
14:30 - 16:10	<p align="center">SESSION 2.5 Special Session on Geomatic for Navigation Chair: <i>Salvatore Gaglione</i></p>	<p align="center">SESSION 2.6 GENERAL SESSION PART III Chair: <i>Gregorio Andria</i></p>	
16:10 - 16:30	CLOSING AND AWARD CEREMONY <i>Palazzo Ateneo - First Floor, Salone degli Affreschi</i>		

Technical Program - Monday, October 8, 2018

15:00 - 17:00

REGISTRATION

Room: *Università di Bari, Palazzo Ateneo, Colonnato*

15:00 - 17:00

TUTORIALS

Chair: *Pasquale Daponte, University of Sannio, Italy*

Room: *Università di Bari, Palazzo Ateneo, Sala degli Affreschi*

SESSION 1 - 15:00 - 15:45

Introduction to measurements

Prof. Mario Savino, Polytechnic University of Bari, Italy

SESSION 2 - 15:45 - 16:30

Cetaceans as a sentinel species of the conservation status of marine ecosystem

Prof. Roberto Carlucci, University of Bari Aldo Moro, Italy

SESSION 3 - 16:30 - 17:15

Measurement of the operational availability

Eng. Eduardo De Francesco, SeTeL srl, Italy

Prof. Fabio Leccese, Università di Roma Tre, Italy

17:45 - 18:45

WELCOME RECEPTION

Room: *Università di Bari, Palazzo Ateneo, Colonnato*

Technical Program - Tuesday, October 9, 2018

08:30 - 17:30

REGISTRATION

Room: *Università di Bari, Palazzo Ateneo, Colonnato*

09:00 - 09:30

WELCOME ADDRESSES

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

09:30 - 10:30

PLENARY OPENING SESSION

Chair: *Prof. Angelo Tursi, University of Bari, Italy*

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

The EMODNET-Geology project – harmonizing geological maps of the European seas

Henry Vallius
Geological Survey of Finland (GTK), Finland

10:30 - 11:00

COFFEE BREAK

Place: *Università di Bari, Palazzo Ateneo, Colonnato*

11:00 - 12:40

Special Session on Measurements in riverine, estuarine and coastal areas - PART I

Chairs: Michele Mossa, *Polytechnic University of Bari, DICATECh, Italy*

Lorenzo Cappiotti, *University of Florence, Italy*

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

11:00 Remote sensing and coastal morphodynamic modelling

Mario Benincasa, *Università Roma Tre, Italy*

Federico Falcini, *ISAC-CNR, Italy*

Claudia Adduce, *Università Roma Tre, Italy*

Rosalia Santoleri, *ISAC-CNR, Italy*

Gianmaria Sannino, *ENEA, Italy*

11:15 Shoreline rotation analysis of embayed beaches in the Central Tyrrhenian Sea

Guido Benassai, *University of Naples "Parthenope", Italy*

Diana Di Luccio, *University of Naples "Parthenope", Italy*

Luigi Mucerino, *University of Genova, Italy*

Gianluigi Di Paola, *University of Molise, Italy*

Carmen Maria Roskopf, *University of Molise, Italy*

Giovanni Pugliano, *University of Naples "Parthenope", Italy*

Umberto Robustelli, *University of Naples "Parthenope", Italy*

Raffaele Montella, *University of Naples "Parthenope", Italy*

11:30 Remote Sensed and In Situ Data: an integrated approach for Coastal Risk Assessment

Maria F. Bruno, *Technical University of Bari, Italy*

Matteo G. Molfetta, *Technical University of Bari, Italy*

Michele Mossa, *Technical University of Bari, Italy*

Luigi Pratola, *Technical University of Bari, Italy*

Raffaele Nutricato, *Geophysical Applications Processing srl, Italy*

Alberto Morea, *Geophysical Applications Processing srl, Italy*

Davide O. Nitti, *Geophysical Applications Processing srl, Italy*

Maria T. Chiaradia, *Technical University of Bari, Italy*

11:45 Wave characteristics estimation by GPS receivers installed on a sailboat travelling off-shore

Paolo De Girolamo, *Sapienza University of Rome, Italy*

Mattia Crespi, *Sapienza University of Rome, Italy*

Alessandro Romano, *Sapienza University of Rome, Italy*

Augusto Mazzoni, *Sapienza University of Rome, Italy*

Marcello Di Risio, *University of L'Aquila, Italy*
Davide Pasquali, *University of L'Aquila, Italy*
Giorgio Bellotti, *Roma Tre University, Italy*
Myrta Castellino, *Sapienza University of Rome, Italy*
Paolo Sammarco, *University of Rome Tor Vergata, Italy*

12:00 Underwater Remotely Operated Vehicles for fast and low cost bathymetry surveys

Marcello Di Risio, *University of L'Aquila, Italy*
Gino D'Ovidio, *University of L'Aquila, Italy*
Daniele Celli, *Technical University of Bari, Italy*
Davide Pasquali, *University of L'Aquila, Italy*

12:15 Hyperspectral characterization of marine plastic litters

Marco Balsi, *Sapienza University of Rome, Italy*
Salvatore Esposito, *OBEN SRL, Italy*
Monica Moroni, *Sapienza University of Rome, Italy*

12:30 Automatic Extraction of Shoreline from Satellite Images: a new approach

Anna Spinosa, *Dept. of IRP - Deltares, The Netherlands*
Alex Ziemba, *Dept. of IRP - Deltares, The Netherlands*
Alessandra Saponieri, *Politecnico di Bari, Italy*
Victor D. Navarro-Sanchez, *Starlab Barcelone SL, Spain*
Leonardo Damiani, *Politecnico di Bari, Italy*
Ghada El Serafy, *Dept. of IRP - Deltares, The Netherlands*

11:00 - 12:30

Special Session on Underwater Measurement for 3D Characterization of Subsea Objects

Chair: Enrico Primo Tomasini, *Università Politecnica delle Marche, Italy*

Room: *Università di Bari, Palazzo Ateneo, Sala delle Aquile*

11:00 Preliminary assessment of Photogrammetric. Approach for detailed dimensional and colorimetric reconstruction of Corals in underwater environment

Rachele Napolitano, *Università Politecnica delle Marche, Italy*
Paolo Chiariotti, *Università Politecnica delle Marche, Italy*
Enrico Primo Tomasini, *Università Politecnica delle Marche, Italy*

11:30 Underwater photogrammetry for investigation of corals growth

Alessandro Capra, *University of Modena and Reggio Emilia, Italy*
Cristina Castagnetti, *University of Modena and Reggio Emilia, Italy*
Paolo Rossi, *University of Modena and Reggio Emilia, Italy*
Francesco Mancini, *University of Modena and Reggio Emilia, Italy*

12:00 Multiscale reconstruction of natural and archaeological underwater landscape by optical and acoustic sensors

Gaia Mattei, *Parthenope University of Naples, Italy*
Salvatore Troisi, *Parthenope University of Naples, Italy*
Pietro P.C. Aucelli, *Parthenope University of Naples, Italy*
Gerardo Pappone, *Parthenope University of Naples, Italy*
Francesco Peluso, *Parthenope University of Naples, Italy*
Michele Stefanile, *L'Orientale University, Italy*

12:40 - 14:00

LUNCH

Place: *Università di Bari, Palazzo Ateneo, Colonnato*

14:00 - 14:30

Copernicus Marine Service

Dr Giovanni Coppini

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

14:30 - 16:10

Special Session on Measurements in riverine, estuarine and coastal areas - PART II

Chairs: Michele Mossa, *Polytechnic University of Bari, DICATECh, Italy*

Lorenzo Cappiotti, *University of Florence, Italy*

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

14:30 Modelling of short-term dispersion in the sea surface layer

Agnese Pini, *University of Rome "La Sapienza", Italy*
Giovanni Leuzzi, *University of Rome "La Sapienza", Italy*
Paolo Monti, *University of Rome "La Sapienza", Italy*
Matteo Manfredi, *University of Rome "La Sapienza", Italy*

14:47 Assessing water exchange between sea and the Orbetello lagoon (Italy) by field measurements and numerical simulations

Lorenzo Cappiotti, *University of Florence, Italy*
Ilaria Crema, *University of Florence, Italy*
Irene Simonetti, *University of Florence, Italy*

- 15:04** **Anisotropic Dispersion in Rotating Fluids: a Laboratory Model of Large Scale Flows**
Stefania Espa, *Sapienza University of Rome, Italy*
Guglielmo Lacorata, *ISAC-CNR, Italy*
- 15:20** **Velocity and turbulence measurements: uncertainty in the application of the Image-based technique**
Donatella Termini, *University of Palermo, Italy*
- 15:37** **Laboratory experiments on solitary wave interaction with rigid emergent vegetation: some preliminary results**
Davide Tognin, *University of Padova, Italy*
Paolo Peruzzo, *University of Padova, Italy*
Francesca De Serio, *Polytechnic University of Bari, Italy*
Mouldi Ben Meftah, *Polytechnic University of Bari, Italy*
Luca Carniello, *University of Padova, Italy*
Andrea Defina, *University of Padova, Italy*
Michele Mossa, *Polytechnic University of Bari, Italy*
- 15:54** **Monitoring for Coastal Resilience: A Project for Five Italian Beaches**
Lorenzo Melito, *Università Politecnica delle Marche, Italy*
Luca Parlagreco, *ISPRA, Italy*
Eleonora Perugini, *Università Politecnica delle Marche, Italy*
Matteo Postacchini, *Università Politecnica delle Marche, Italy*
Gianluca Zitti, *Università Politecnica delle Marche, Italy*
Maurizio Brocchini, *Università Politecnica delle Marche, Italy*

14:30 - 16:10

Special Session on Metrological Traceability of Oceanic Parameters

Chairs: Francesca Rolle, *Istituto Nazionale di Ricerca Metrologica (INRiM), Italy*

P. Alberto Giuliano Albo, *Istituto Nazionale di Ricerca Metrologica (INRiM), Italy*

Room: *Università di Bari, Palazzo Ateneo, Sala delle Aquile*

- 14:30** **A spar buoy-mounted ADCP measurement station in the Ligurian Sea: a metrological approach to correct current measures for bias effects and evaluate uncertainties**
Giancarlo Raiteri, *S. Teresa Research Centre, ENEA, Italy*
Andrea Bordone, *S. Teresa Research Centre, ENEA, Italy*
Tiziana Ciuffardi, *S. Teresa Research Centre, ENEA, Italy*

Antonio Schirone, *S. Teresa Research Centre, ENEA, Italy*
Francesca Pennechi, *INRIM, Italy*
Roberto Bozzano, *IAS-CNR, Italy*
Sara Pensieri, *IAS-CNR, Italy*

14:47 European Metrology Network on Climate and Ocean Observation: building a 'one-stop shop' for reliable measurements of ECVs

Fernando Sparasci, *LNE-Cnam, France*
Paola Fisicaro, *Laboratoire National de Métrologie et d'Essais, France*
Carmen Garcia Izquierdo, *Centro Español de Metrología, Spain*
Ivo Leito, *University of Tartu, Estonia*
Teemu Näykki, *Finnish Environment Institute, Finland*
Andrea Peruzzi, *VSL-Nederlands Metrologisch Instituut, The Netherlands*
Michela Segà, *Istituto Nazionale di Ricerca Metrologica, Italy*
Steffen Seitz, *Physikalisch-Technische Bundesanstalt, Germany*
Emma Woolliams, *National Physical Laboratory, UK*

15:04 Seawater density measurements in the temperature range between 278.15 K and 308.15 K at ambient pressure

Raffaella Romeo, *Istituto Nazionale di Ricerca Metrologica, Italy*
Simona Lago, *Istituto Nazionale di Ricerca Metrologica, Italy*
Paolo Alberto Giuliano Albo, *Istituto Nazionale di Ricerca Metrologica, Italy*
Marc Le Menn, *French Hydrographic and Oceanographic Service, France*

15:20 Density measurements of IAPSO Standard Seawater by hydrostatic weighing

Paolo Alberto Giuliano Albo, *Istituto Nazionale di Ricerca Metrologica, Italy*
Simona Lago, *Istituto Nazionale di Ricerca Metrologica, Italy*
Raffaella Romeo, *Istituto Nazionale di Ricerca Metrologica, Italy*

15:37 Stable carbon isotope signatures in atmosphere and seawater as a basis for climate change studies

Francesca Rolle, *Istituto Nazionale di Ricerca Metrologica, Italy*
Michela Segà, *Istituto Nazionale di Ricerca Metrologica, Italy*

15:54 Low frequency underwater noise in the Mediterranean: towards a coordinated approach for monitoring techniques and data traceability

Fabrizio Borsani, *ISPRA – Environmental Protection Research Agency, Italy*
Silvano Buogo, *CNR-INM, Italy*
Salvatore Curcuruto, *ISPRA – Environmental Protection Research Agency, Italy*
Salvatore Mauro, *CNR-INM, Italy*

16:10 - 16:30

COFFEE BREAK

Place: *Università di Bari, Palazzo Ateneo, Colonnato*

16:30 - 18:10

Special Session on Measurements in riverine, estuarine and coastal areas - PART III

Chairs: Michele Mossa, *Polytechnic University of Bari, DICATECh, Italy*

Lorenzo Cappiotti, *University of Florence, Italy*

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

16:30 **Monitoring System in Mar Grande Basin (Ionian Sea)**

Elvira Armenio, *Polytechnic University of Bari, Italy*

Mouldi Ben Meftah, *Polytechnic University of Bari, Italy*

Diana De Padova, *Polytechnic University of Bari, Italy*

Francesca De Serio, *Polytechnic University of Bari, Italy*

Michele Mossa, *Polytechnic University of Bari, Italy*

16:47 **Nanostructured MnO₂ for phenolic compounds degradation and monitoring**

Roberto Di Chio, *University of Messina, Italy*

Francesco Arena, *University of Messina, Italy*

Salvatore Gianluca Leonardi, *University of Messina, Italy*

Giovanni Neri, *University of Messina, Italy*

Nicola Donato, *University of Messina, Italy*

17:04 **Microplastic samplings and inverse trajectory recognition in the Mediterranean Sea**

Agnese Pini, *University of Rome "La Sapienza", Italy*

Paolo Tomassetti, *CN-LAB ISPRA, Italy*

Marco Matiddi, *CN-LAB ISPRA, Italy*

G. Andrea de Lucia, *IAMC-CNR, Italy*

Andrea Camedda, *IAMC-CNR, Italy*

Giorgio Zampetti, *Legambiente, Italy*

Chiara Lattanzi, *University of Rome "La Sapienza", Italy*

Giovanni Leuzzi, *University of Rome "La Sapienza", Italy*

Paolo Monti, *University of Rome "La Sapienza", Italy*

17:20 **An Innovative System for Testing of Contaminated Soft Sediments**

Francesca Sollecito, *Polytechnic University of Bari, Italy*

Oswaldo Bottiglieri, *Polytechnic University of Bari, Italy*

Federica Cotecchia, *Polytechnic University of Bari, Italy*
Daniela Miccoli, *Polytechnic University of Bari, Italy*
Francesco Todaro, *Polytechnic University of Bari, Italy*
Claudia Vitone, *Polytechnic University of Bari, Italy*
Francesco Adamo, *Polytechnic University of Bari, Italy*
Gregorio Andria, *Polytechnic University of Bari, Italy*
Attilio Di Nisio, *Polytechnic University of Bari, Italy*
Anna Maria Lucia Lanzolla, *Polytechnic University of Bari, Italy*
Maurizio Spadavecchia, *Polytechnic University of Bari, Italy*

17:37 Prediction of coastal cliff recession in Cilento Geopark (southern Italy): The case of Ripe Rosse

Domenico Guida, *University of Salerno, Italy*
Alessio Valente, *University of Sannio, Italy*

17:54 Performance measurements of an air turbine installed at sea in a small scale OWC

Pasquale Fabio Filianoti, *University Mediterranean of Reggio Calabria, Italy*
S.M. Camporeale, *Polytechnic University of Bari, Italy*

16:30 - 18:10

Special Session on Innovative solutions for marine mammals and sea-turtles monitoring - PART I

Chairs: Roberto Carlucci, *University of Bari "Aldo Moro", Italy*

Rosalia Maglietta, *CNR-ISSIA, Italy*

Marta Azzolin, *University of Turin, Italy/Gaia Research Institute Onlus*

Room: *Università di Bari, Palazzo Ateneo, Sala delle Aquile*

16:30 Exploiting species-distinctive visual cues towards the automated photo-identification of the Risso's dolphin *Grampus griseus*

Vito Renò, *National Research Council, Italy*
Giovanni Dimauro, *University of Bari, Italy*
Gabriele Labate, *University of Bari, Italy*
Ettore Stella, *National Research Council, Italy*
Carmelo Fanizza, *Jonian Dolphin Conservation, Italy*
Francesca Capezuto, *University of Bari, Italy*
Giulia Cipriano, *University of Bari, Italy*
Roberto Carlucci, *University of Bari, Italy*
Rosalia Maglietta, *National Research Council, Italy*

- 16:50** **Social Media for Social Species: A case study on the behavioural transitions of bottlenose dolphins (*Tursiops truncatus*) in the presence of tourism, Montenegro, South Adriatic**
Jack Clarkson, *Marine Mammals Research, Turkey*
Lucy Abbiss, *Marine Mammals Research, Turkey*
Aylin Akkaya Bas, *Marine Mammals Research, Turkey*
- 17:10** **A dedicated ethogram and the employment of the software BORIS for monitoring striped dolphin surface behaviour in Greece (Gulf of Corinth)**
Marta Azzolin, *Gaia Research Institute Onlus, Italy*
Sebastien Saintignan, *Gaia Research Institute Onlus, Italy*
Laura Pintore, *Gaia Research Institute Onlus, Italy*
Olivier Friard, *University of Turin, Italy*
Marco Gamba, *University of Turin, Italy*
Cristina Giacomina, *University of Turin, Italy*
- 17:30** **Employing ferry as platform of observation for monitoring Loggerhead sea turtle (*Caretta caretta*) distribution in the Adriatic-Ionian Region**
Arianna Zampollo, *Gaia Research Institute Onlus, Italy*
Marta Azzolin, *Gaia Research Institute Onlus, Italy*
Antonella Arcangeli, *ISPRA Department for Nature Conservation, Italy*
Joana Buoninsegni, *Accademia del Leviatano, Italy*
Miriam Paraboschi, *Accademia del Leviatano, Italy*
Roberto Crosti, *ISPRA BIO-SOST Department, Italy*
Chiara Mancino, *Gaia Research Institute Onlus, Italy*
Cristina Giacomina, *University of Turin, Italy*
- 17:50** **Multi source data analysis for improving striped dolphin distribution modelling at a regional scale**
Marta Azzolin, *Gaia Research Institute Onlus, Italy*
Sebastien Saintignan, *Gaia Research Institute Onlus, Italy*
Arianna Zampollo, *Gaia Research Institute Onlus, Italy*
Roberto Carlucci, *University of Bari, Italy*
Rosalia Maglietta, *National Research Council, Italy*
Giulia Cipriano, *University of Bari, Italy*
Roberto Crosti, *ISPRA BIO-SOST Department, Italy*
Antonella Arcangeli, *ISPRA Department for Nature Conservation, Italy*
Pasquale Ricci, *University of Bari, Italy*
Carmelo Fanizza, *Jonian Dolphin Conservation, Italy*
Arianna Vetrugno, *Accademia del Leviatano, Italy*
Martina Ramazio, *UNIVPM - DiSVA, Italy*
Cristina Giacomina, *University of Turin, Italy*

20:00 - 23:00

GALA DINNER

Place: *Circolo della Vela, Molo Borbonico – Bari*

Corso Antonio De Tullio, 1 - Bari

Technical Program - Wednesday, October 10, 2018

09:00 - 15:00

REGISTRATION

Room: *Università di Bari, Palazzo Ateneo, Colonnato*

09:00 - 09:50

PLENARY OPENING SESSION

Chair: Prof. Michele Mossa, *Polytechnic of Bari, Italy*

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

Measurement needs in the field of coastal engineering at laboratory scale

Rosaria E. Musumeci
University of Catania, Italy

09:50 - 11:10

General Session - PART I

Chair: Aimè Lay-Ekuakille, *University of Salento, Italy*

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

09:50 **A multiparametric method for the classification of the seabed from acoustic backscattered signal**

Maurizio Demarte, *Italian Hydrographic Institute, Italy*

Roberto Nardini, *Italian Hydrographic Institute, Italy*

Mauro Marro, *Italian Hydrographic Institute, Italy*

Cosmo Peluso, *Italian Navy, Italy*

Roberta Ivaldi, *Italian Hydrographic Institute, Italy*

10:10 **An Innovative Amphibian Drone**

Eduardo De Francesco, *Se.Te.L. srl, Italy*

10:30 Case Study-based Overview of Selected Measurements in Ship Systems
Janusz Mindykowski, *Gdynia Maritime University, Poland*
Bolesław Dudojć, *Gdynia Maritime University, Poland*

10:50 The role of IHS and the regulation of the hydrographer as profession
Aldo Monaca, *Italian Hydrographic Society, Italy*

09:50 - 11:10

Special Session on Acquisition, processing and interpretation of marine geology data

Chairs: Maria Rosaria Senatore, *University of Sannio, Italy*
Donatella D. Insinga, *IAMC-CNR, Italy*

Room: *Università di Bari, Palazzo Ateneo, Sala delle Aquile*

09:50 Shoreline erosion of microtidal beaches examined with UAV and remote sensing techniques
Ferdinando Nunziata, *University of Naples "Parthenope", Italy*
Andrea Buono, *University of Naples "Parthenope", Italy*
Maurizio Migliaccio, *University of Naples "Parthenope", Italy*
Guido Benassai, *University of Naples "Parthenope", Italy*
Diana Di Luccio, *University of Naples "Parthenope", Italy*

10:15 Seafloor habitat mapping on the "Pelagie Islands" MPA (Sicily Channel) using Remote Sensing Object Image Analysis supported by multibeam bathymetry and ground-truth data
Sara Innangi, *IAMC-CNR, Italy*
Renato Tonielli, *IAMC-CNR, Italy*
Claudia Romagnoli, *Università di Bologna, Italy*
Gabriella Di Martino, *IAMC-CNR, Italy*
Michele Innangi, *Università degli Studi della Campania "Luigi Vanvitelli", Italy*

10:40 A Statistical Modelling Based Algae Proliferation Triggers Exploration of Tropical Coastal Water
Ruixi Zhang, *National University of Singapore, Singapore*
Bjorn Foortse, *National University of Singapore, Singapore*
Mengyu Wang, *National University of Singapore, Singapore*
Vladan Babovic, *National University of Singapore, Singapore*

11:10 - 11:40

COFFEE BREAK

Place: *Università di Bari, Palazzo Ateneo, Colonnato*

11:40 - 13:20

Special Session on Innovative solutions for marine mammals and sea-turtles monitoring - PART II

Chairs: Roberto Carlucci, *University of Bari "Aldo Moro", Italy*

Rosalia Maglietta, *CNR-ISSIA, Italy*

Marta Azzolin, *University of Turin, Italy/Gaia Research Institute Onlus*

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

11:40 Site fidelity, residency and habitat use of the Risso's dolphin *Grampus griseus* in the Gulf of Taranto (Northern Ionian Sea, Central-eastern Mediterranean Sea) by photo-identification

Roberto Carlucci, *University of Bari, Italy*

Aylin Akkaya Bas, *Istanbul University, Turkey*

Rosalia Maglietta, *National Research Council, Italy*

Vito Renò, *National Research Council, Italy*

Carmelo Fanizza, *Jonian Dolphin Conservation, Italy*

Aldo Rizzo, *Jonian Dolphin Conservation, Italy*

Roberto Crugliano, *Jonian Dolphin Conservation, Italy*

Giulia Cipriano, *University of Bari, Italy*

12:00 Distribution and causes of sea turtles stranding on the Ionian coast of Calabria, Apulia and Basilicata

Gianluca Cirelli, *Oasi WWF Policoro Herakleia, Italy*

Annachiara Pisto, *Oasi WWF Policoro Herakleia, Italy*

Francesca Ardolino, *Oasi WWF Policoro Herakleia, Italy*

Antonio Colucci, *Oasi WWF Policoro Herakleia, Italy*

Nicola Tragni, *Italy*

Erika Ottone, *Italy*

Francesca Catucci, *Oasi WWF Policoro Herakleia, Italy*

Vincenzo Aquaro, *Italy*

- 12:20** **The promise of machine learning in the Risso's dolphin *Grampus griseus* photo-identification**
Rosalia Maglietta, *National Research Council, Italy*
Andrea Bruno, *University of Bari, Italy*
Vito Renò, *National Research Council, Italy*
Giovanni Dimauro, *University of Bari, Italy*
Ettore Stella, *National Research Council, Italy*
Carmelo Fanizza, *Jonian Dolphin Conservation, Italy*
Stefano Bellomo, *Jonian Dolphin Conservation, Italy*
Giulia Cipriano, *University of Bari, Italy*
Angelo Tursi, *University of Bari, Italy*
Roberto Carlucci, *University of Bari, Italy*
- 12:40** **Emission rate of acoustic signals for the common bottlenose and striped dolphins in the Gulf of Taranto (Northern Ionian sea, central-eastern Mediterranean sea)**
Carmelo Fanizza, *Jonian Dolphin Conservation, Italy*
Maria Ceraulo, *BioacousticsLab, IAMC-CNR, Italy*
Rosalia Maglietta, *National Research Council, Italy*
Giulia Cipriano, *University of Bari, Italy*
Francesca Cornelia, *Jonian Dolphin Conservation, Italy*
Giuseppa Buscaino, *BioacousticsLab, IAMC-CNR, Italy*
Rosario Grammauta, *BioacousticsLab, IAMC-CNR, Italy*
Letizia Sion, *University of Bari, Italy*
Roberto Carlucci, *University of Bari, Italy*
Vito Renò, *National Research Council, Italy*
Elena Papale, *BioacousticsLab, IAMC-CNR, Italy*
- 13:00** **A model of environmental suitability for the conservation of the loggerhead turtle *Caretta caretta* in the Southern Adriatic and Northern Ionian Sea (Central Mediterranean Sea)**
Manuél Marra, *University of Bari Aldo Moro, Italy*
Cataldo Pierri, *University of Bari Aldo Moro, Italy*
Paolo Colangelo, *Institute of Agro-environmental and Forest Biology, CNR, Italy*
Roberto Carlucci, *University of Bari Aldo Moro, Italy*
Giuseppe Corriero, *University of Bari Aldo Moro, Italy*
Giovanni Scillitani, *University of Bari Aldo Moro, Italy*

11:40 - 13:20

General Session - PART II

Chair: Anna Lanzolla, *Polytechnic University of Bari, Italy*

Room: *Università di Bari, Palazzo Ateneo, Sala delle Aquile*

11:40 **Micro Climate Prediction Utilising Machine Learning Approaches**
Anastasia Eleftheriou, *Center for Technology Research & Innovation, Cyprus*
Petros Karvelis, *Computer Technology Institute & Press "Diophantus", Greece*
Kostas Kouvaris, *Center for Technology Research & Innovation, Cyprus*
Chrysostomos Stylios, *Computer Technology Institute & Press "Diophantus", Greece*

12:05 **Underwater Hyperspectral Imaging for seafloor and benthic habitat mapping**
Federica Fogliani, *Institute of Marine Sciences, CNR, Italy*
Giovanni Chimienti, *University of Bari, Italy*
Agostino N. Meroni, *University of Milano-Bicocca, Italy*
Mariacristina Prampolini, *Institute of Marine Sciences, CNR, Italy*
Fabio Badalamenti, *Institute for Coastal and Marine Environment, CNR, Italy*
Eleonora Martorelli, *Institute of Environmental Geology and Engineering, CNR, Italy*
Lorenzo Angeletti, *Institute of Marine Sciences, CNR, Italy*
Valentina Grande, *Institute of Marine Sciences, CNR, Italy*
Fabio Marchese, *University of Milano-Bicocca, Italy*
Marco Taviani, *Institute of Marine Sciences, CNR, Italy*
Cesare Corselli, *University of Milano-Bicocca, Italy*
Alessandra Savini, *University of Milano-Bicocca, Italy*
Valentina Bracchi, *University of Milano-Bicocca, Italy*
Ingrid Myrnes Hansen, *ECOTONE AS, Norway*
Alessandra Mercorella, *Institute of Marine Sciences, CNR, Italy*
Agostina Vertino, *University of Milano-Bicocca, Italy*
Ivar Erdal, *ECOTONE AS, Norway*

12:30 **AMERIGO and CBA: a new lander and a new automatic benthic chamber for dissolved benthic flux measurements**
Federico Spagnoli, *Institute of Marine Sciences, CNR, Italy*
Giordano Giuliani, *Institute of Marine Sciences, CNR, Italy*
Valter Martinotti, *Dipartimento Sviluppo sostenibile e Fonti Energetiche, RSE SpA, Italy*
Luca Masini, *Institute for Microelectronics and Microsystems, CNR, Italy*
Pierluigi Penna, *Institute of Marine Sciences, CNR, Italy*

12:55 Biometric relationships in the red sea pen *Pennatula rubra* (Cnidaria: Pennatulacea)

Giovanni Chimienti, *University of Bari Aldo Moro, Italy*

Angelo Tursi, *University of Bari Aldo Moro, Italy*

Francesco Mastrototaro, *University of Bari Aldo Moro, Italy*

13:20 - 14:30

LUNCH

Place: *Università di Bari, Palazzo Ateneo, Colonnato*

14:30 - 16:10

Special Session on Geomatic for Navigation

Chair: *Salvatore Gaglione, Parthenope University of Naples, Italy*

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

14:30 Accuracy evaluation of Doresa and Milena Galileo satellites broadcast ephemerides

Umberto Robustelli, *Parthenope University of Naples, Italy*

Guido Benassai, *Parthenope University of Naples, Italy*

Giovanni Pugliano, *Parthenope University of Naples, Italy*

14:50 Multi-GNSS Single Frequency Precise Point Positioning

Anna Innac, *Parthenope University of Naples, Italy*

Salvatore Gaglione, *Parthenope University of Naples, Italy*

Antonio Angrisano, *G. Fortunato University, Italy*

15:10 Incidence of Fourier transform parameters on sea spectrum resampling from wave time history

Silvia Pennino, *Parthenope University of Naples, Italy*

Vincenzo Piscopo, *Parthenope University of Naples, Italy*

Antonio Scamardella, *Parthenope University of Naples, Italy*

15:30 IoT for Buoy Monitoring System

Silvio Del Pizzo, *iNAV S.a.s. – Geomatic Solutions, Italy*

Aniello De Martino, *Prisma S.r.l., Italy*

Giancarlo De Viti, *Monitoring System S.r.l., Italy*

Rosa Linda Testa, *iNAV S.a.s. – Geomatic Solutions, Italy*

Giuseppe De Angelis, *Prisma S.r.l., Italy*

15:50 Optimization of the maritime signaling in the Venetian Lagoon

Fabiana Di Ciaccio, *Parthenope University, Italy*
Paolo Menegazzo, *Strategic Planning Port Authority, Italy*
Salvatore Troisi, *Parthenope University, Italy*

14:30 - 16:10

General Session - PART III

Chair: Gregorio Andria, *Polytechnic University of Bari, Italy*

Room: *Università di Bari, Palazzo Ateneo, Sala delle Aquile*

14:30 Implementation of a Pilot Monitoring Plan in Bourgas Seaport

Magdalena Korsachka, *NIMH-BAS, Bulgaria*
Jordan Marinski, *NIMH-BAS, Bulgaria*
Veronika Andrea, *Technological Educational Institute of Epirus, Greece*
Chrysostomos Stylios, *Technological Educational Institute of Epirus, Greece*

14:55 Optical coupling of spherical microresonators with tapered fibers for chemical/biomedical applications

Dario Laneve, *Polytechnic University of Bari, Italy*
Daniele Farnesi, *Institute of Applied Physics, CNR, Italy*
Francesco Baldini, *Institute of Applied Physics, CNR, Italy*
Mario Christian Falconi, *Polytechnic University of Bari, Italy*
Gualtiero Nunzi Conti, *Institute of Applied Physics, CNR, Italy*
Francesco Prudenzano, *Polytechnic University of Bari, Italy*
Francesco Chiavaioli, *Institute of Applied Physics, CNR, Italy*
Silvia Soria, *Institute of Applied Physics, CNR, Italy*

15:20 Wind tunnel measurements for the characterization of a small scale monoplane Wells turbine

Marco Torresi, *Polytechnic University of Bari, Italy*
Sergio Mario Camporeale, *Polytechnic University of Bari, Italy*

15:45 A High Accuracy Buoyancy System Control for an Underwater Glider

Enrico Petritoli, *Università degli Studi "Roma Tre", Italy*
Fabio Leccese, *Università degli Studi "Roma Tre", Italy*
Marco Cagnetti, *Università degli Studi "Roma Tre", Italy*

16:10 - 16:30

CLOSING AND AWARD CEREMONY

Room: *Università di Bari, Palazzo Ateneo, Salone degli Affreschi*

POSTER AND DEMO SESSION

Room: *Università di Bari, Palazzo Ateneo*

A Simple Takagi-Sugeno Fuzzy Modelling Case Study for an Underwater Glider Control System

F. Leccese, *Università degli Studi "Roma Tre", Italy*

M. Cagnetti, *Università degli Studi "Roma Tre", Italy*

S. Giarnetti, *Università degli Studi "Roma Tre", Italy*

E. Petritoli, *Università degli Studi "Roma Tre", Italy*

I. Luisetto, *Università degli Studi "Roma Tre", Italy*

S. Tuti, *Università degli Studi "Roma Tre", Italy*

A. Pecora, *IMM-CNR, Italy*

L. Maiolo, *IMM-CNR, Italy*

R. Đurović-Pejčev, *Institute of Pesticides and Environmental Protection, Serbia*

T. Đorđević, *Institute of Pesticides and Environmental Protection, Serbia*

A. Tomašević, *Institute of Pesticides and Environmental Protection, Serbia*

V. Bursić, *Institute of Pesticides and Environmental Protection, Serbia*

E. De Francesco, *SeTeL srl, Italy*

R. Quadarella, *RoTechnology s.r.l, Italy*

L. Bozzi, *RoTechnology s.r.l, Italy*

V. Arenella, *Fonderie Digitali s.r.l, Italy*

P. Gabriele, *Fonderie Digitali s.r.l, Italy*

G. Schirripa Spagnolo, *Università degli Studi "Roma Tre", Italy*

C. Formisano, *Systemdesign s.r.l, Italy*

Development of a Sensor for Leak Detection in Underground Water Pipelines

Nicola Giaquinto, *Politecnico di Bari, Italy*

Giuseppe Maria D'Aucelli, *Politecnico di Bari, Italy*

Rocco D'Ingillo, *Politecnico di Bari, Italy*

Francesco Prudeniano, *Politecnico di Bari, Italy*

Filippo Attivissimo, *Politecnico di Bari, Italy*

Sedimentological analyses to identify Centennial-scale climatic variability during the upper Holocene. A gravity core collected on the Apulia continental slope in the Gulf of Taranto

Agostino Meo, *University of Sannio, Italy*

Maddalena Falco, *University of Sannio, Italy*

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Mitigation of leverage observation effects in GNSS robust positioning

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Metrological Aspects in Approximate Computing: Fourier Transform in Polluted Water Spectroscopy

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