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Welcome to 1\textsuperscript{st} IMEKO TC19 International Workshop on \textit{Metrology for the Sea}

“\textit{Learning to measure sea health parameters}”

On behalf of the Organizing Committee, we cordially welcome you to the 1\textsuperscript{st} IMEKO TC19 \textit{International Conference on Metrology for the Sea} (MetroSea).

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, “\textit{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 1\textsuperscript{st} IMEKO TC19 \textit{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. It is also an “imprint” of IMEKO Technical Committee 19 which is dedicated to environmental measurement.

The first edition of MetroSea will be held at \textit{University of Naples “Parthenope”}. It was an obvious choice, due the fact that this University is one of the most important and old Italian Institution dealing with the sea. As a matter of fact, \textit{University of Naples “Parthenope”} was founded in 1920 as the \textit{Royal Naval Technical Institute} of the Kingdom of Italy. Initially, its purpose was to be a “support” institute for the promotion of studies aimed at improving maritime economy and naval technology. In the 1930s it was further enlarged and improved, and its name was changed to \textit{Istituto Universitario Navale}. Finally, after a deep and wide reformation in the last years it was transformed in \textit{University of Naples “Parthenope”}.

We are sure that the universally recognized beauty of Naples will be a perfect frame for this prestigious conference. 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 \textit{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 received 92 abstracts from all over the world. 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 Measurement Journal (Elsevier) and Acta IMEKO.

The keynote speeches will be held by experts in the field of metrology for the sea; Prof. Michele Scardi, from Tor Vergata University Rome, Italy, will speak about Measuring marine ecosystems: challenges from the Marine Strategy EU Directive, Prof. Pierre-Marie Poulain, Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS, Italy will present The New Frontiers in In-Situ Ocean Observing Systems. We are honoured 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 11. In particular, three sessions will be offered on:

- SATELLITE OCEANOGRAPHY, Maurizio Migliaccio, University of Naples “Parthenope”, Italy;
- MULTIBEAM SWATH BATHYMETRY, FROM METHOD TO APPLICATION, Francesco Chiocci, Sapienza University of Rome, Italy;
- SURVEYING IN ITALY: NATIONAL STANDARDS, Nicola Marco Pizzeghello, Italian Hydrographic Institute, Italian Navy, Italy.

The technical programme includes a visit to the R/V Vettoria oceanographic boat of the Stazione Zoologica Anton Dohrn used for scientific research in coastal oceanography. It will be possible to see the onboard equipment used by researchers to study the physical, chemical and biological characteristics of the sea.

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.
Some Awards will be assigned:

- **Best Paper Award**, The Giuseppe Bottiglieri Shipping Company S.p.A. dedicates the Best Paper Award to the memory of Prof. Felice Cennamo. The award consists of a model of one of Bottiglieri naval vessels type Post -Panama bulkcarrier (cargo ships of 94000 tons capacity that may to transit through the new Panama Canal).

- **Best Paper Presented by a Young Researcher**, this award is offered by Rotary Club Napoli Posillipo D2100 – Italy, it will be given for the best paper authored and presented by a researcher younger than 35 years in age.

- **Best Poster Award**, it will be assigned to a paper presented as a poster. The poster must be presented by one of its Authors. The award is sponsored by CoNISMa.

- **Best Demo Award**, To highlight the importance of the Demo Session, an award will be given for the best demo presentation. The award is sponsored by the Italian Associations of researchers in the field of electrical and electronic measurements (GMEE) and mechanical and thermal measurements (GMMT).

The 1st International IMEKO TC19 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.

**General Co-Chair**  
Pasquale Daponte,  
University of Sannio, Italy

**General Co-Chair**  
Giorgio Budillon,  
University of Naples, Parthenope, Italy

**Technical Program Co-Chair**  
Francesco Chiocci,  
University of Roma “La Sapienza”, Italy

**Technical Program Co-Chair**  
Ennio Marsella  
IAMC-CNR, Naples, Italy
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Attilio Sulli, University of Palermo, Italy
Tong Sun, City University of London, London
Maurizio Torrente, University of Sannio, Italy
Leo Van Biesen, Vrije Universiteit Brussel, Belgium
Jari Walden, Finnish Meteorological Institute, Finland
Sunao Yamashita, DKK-TOA Corporation, Japan

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Francesco Picariello, University of Sannio, Italy
Maria Riccio, University of Sannio, Italy
Ioan Tudosa, University of Sannio, Italy

LOCAL ARRANGEMENTS

www.athenaconsulting.eu
MetroSea 2017 Keynote Speakers

Keynote Thursday, October 12, 2017

The New Frontiers in In-Situ Ocean Observing Systems

Pierre-Marie Poulain
Istituto Nazionale di Oceanografia e di Geofisica Sperimentale - OGS, Italy

Dr. Pierre-Marie Poulain obtained his Ph. D. in Oceanography from the University of California San Diego in 1989. After a postdoc at the University of Miami, he worked as a physical oceanographer for a NATO research laboratory, for the Naval Postgraduate School and finally for an Italian state-funded research institute (OGS). Since his graduate studies Dr. Poulain’s research activities have been focused on the monitoring of ocean circulation and water mass properties using mobile autonomous instruments, such as drifter, profiling floats and gliders. He has published the results on his studies on ocean dynamics in more than 100 research papers in peer-reviewed journals. At OGS, Dr. Poulain is coordinating the drifter and profiling float programs in the Mediterranean and Black Sea in order to guarantee an efficient and sustained observational array based on freely-drifting instruments.

Dr. Poulain is an operational partner of the Global Drifter Program since its infancy in the late 1980’s. In 2014, Dr. Poulain was appointed as the Chairman of the Management Committee of the Euro-Argo ERIC, an European research infrastructure and important contributor to the international Argo program.
Keynote Friday, October 13, 2017


Michele Scardi
Tor Vergata University of Rome, Italy
Vice President of CoNISMa

Michele Scardi (Napoli, 11/1/1956) is associate professor of Ecology at the Tor Vergata University (Rome, Italy). He authored about 150 scientific papers and is a member of the Editorial Board of Freshwater Biology (Wiley), Ecological Informatics (Elsevier) and Scientific Reports (Nature Publishing Group). Moreover, he has also been a guest editor for Ecological Modelling (Elsevier).

From 2007 to 2011 he has been a member of the Italian National Scientific Committee for Antarctica and from 2016 is vice-president of CoNISMa. Since February 2012 he has been appointed as expert for the implementation of the Marine Strategy Framework Directive by the Italian Ministry of the Environment. His present research activities include ecological applications of neural networks and other machine learning techniques, phytoplankton primary production models, methods for assessment of ecosystem status and development and application of data analysis techniques in ecology.
Technical Visit - Thursday, October 12, 2017

Visit the R/V Vettoria oceanographic boat of the Stazione Zoologica Anton Dohrn of Naples used for scientific research in coastal oceanography. It will be possible to see the onboard equipment used by researchers to study the physical, chemical and biological characteristics of the sea.

The Research Vessel Vettoria is equipped with:

- GPS
- Radar
- Echo sounder
- VHF
- Multiparametric Probe SBE 911Plus
- Hydraulic portal for oceanographic instruments and sampling of planktonic and benthic communities
- Hydraulic winch with double drum
- Cable (1500 m) for multiparameter probes and samplers
- Automatic sampler Carousell SBE with 12 bottles of 10 liters
- Steel cord (600 m, 5 mm diameter)
- Wet laboratory for filtration and first processing of samples for chemical and biological analysis
Maps

Conference Rooms

*University of Naples Parthenope*

Aula Magna; Hall n. 1; Hall n. 2; Hall n. 5

Via Ammiraglio Ferdinando Acton

Naples, Italy
University of Naples "Parthenope" - Ground Floor

- Auditorium
- Hall n.1
- Hall n.2
- Hall n.5
**Awards**

**BEST PAPER AWARD**
The *Giuseppe Bottiglieri Shipping Company S.p.A.* dedicates the Best Paper Award to the memory of Prof. Felice Cennamo.

The award consists of a model of one of *Giuseppe Bottiglieri Shipping Company S.p.A.* naval vessels type Post-Panama bulkcarrier (cargo ships of 94000 tons capacity that may to transit through the new Panama Canal).

The Best Paper Award will be selected on the basis of the review process and on the paper presentation during the congress. The final assessment and selection criteria will be based on several key parameters, including: technical quality of the paper, authors' knowledge of the field, presentation effectiveness and clarity, engagement in substantive question & answer, etc.

**BEST PAPER PRESENTED BY A YOUNG RESEARCHER**
To highlight the importance of the paper presented and authored by a young researcher, *Rotary Club of Napoli-Posillipo* offers an exclusive plaque to a researcher younger than 35 years in age.

Basis for Judging: Technical merit, originality, potential impact on the field, clarity of the written paper, and quality of the oral or other presentation.

**BEST POSTER AWARD**
The Best Poster Award will be assigned to a paper, which is presented as a poster. The award is sponsored by *CoNISMa*.

The Best Poster will be selected on the basis of the review process and on an interview (by unidentified judges) during the poster sessions. The judges will assess the quality and clarity of the poster, as well as the effectiveness of the presenter explanations to the poster viewers. The poster must be presented by one of its Authors.

The Authors interested in this award are kindly invited to put up their posters at the beginning of the Conference.

**BEST DEMO AWARD**
To highlight the importance of the Demo Session, an award will be given for the best demo. The award is sponsored by *GMEE* and *GMMT*, the Italian Associations of researchers in the field of electrical and electronic measurements (GMEE) and mechanical and thermal measurements (GMMT).
Social Functions

WELCOME PARTY

We are happy to invite MetroSea 2017 attendees to the Welcome Party on Wednesday October 11, 2017.
The Welcome Party will be organized at the University of Naples “Parthenope”, Via Ammiraglio Ferdinando Acton.

GALA DINNER

We are happy to invite MetroSea 2017 attendees to social event: the Gala Dinner on Thursday October 12.
The Gala Dinner Ticket is included in Regular Registration Fee (Three Days). It can be purchased as "Additional Ticket" in the Registration Form or at Registration Desk.
The Gala Dinner will be held at the Regina Margherita restaurant located in Via Partenope 19 (www.reginamargheritanapoli.it), very close to the conference venue and in the heart of the pedestrian area of the promenade of the city of Naples. We are sure you will enjoy the Neapolitan atmosphere and the best and famous pizza in the world!
The "Marine Turtles Research Centre" of the Stazione Zoologica Anton Dohrn is located in the Municipality of Portici. The structure is spread over 600 m² covered and 7000 m² outdoor and is an exceptional example of urban redevelopment.

The Center has advanced laboratories for environmental and biological analyzes, a veterinary and radiology clinic, a rich didactic exhibition, two multimedia rooms, and of course the areas dedicated to the treatment and rehabilitation of marine wounded turtles.

The Sea Turtle Recovery Centre started its research activities in 1983, in response to the growing number of specimens of sea turtles recovered stranded or debilitated or injured because of the interaction with human activities at sea.

The Centre is authorized by the “Ministero dell’Ambiente, del Territorio e del Mare” (Ministry of Environment) to handle sea turtles (otherwise prohibited according to the D.P.R. 357/97).

The Recovery Center is the regional representative for the conservation of sea turtles and collaborates with agencies and Italian and foreign institutions to promote the protection of these important flagship species.

The “Gulf Observatory of Naples” of the Stazione Zoologica Anton Dohrn for the study of the marine ecosystems of the Gulf of Naples represents the symbol of cultural revival aimed at environmental education for the recovery, proper management and safeguard of the marine environment. The primary objective of the Observatory is to contribute to the achievement of the Good Environmental State of National Interest Bonification Sites and the entire Gulf of Naples in compliance with European legislation known as the Marine Strategy adopted by the Italian State.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>15:00 - 17:00</td>
<td><strong>REGISTRATION</strong> - University of Naples “Parthenope”, Via Ammiraglio Ferdinando Acton, 38</td>
</tr>
</tbody>
</table>
| 15.00 - 16:00 | **SESSION 1**  
SATellite OCEANOGRAPHY  
Maurizio Migliaccio, University of Naples “Parthenope”  
University of Naples “Parthenope” – Aula Magna |
| 16:00 - 17:00 | **SESSION 2**  
MULTIBEAM SWATH BATHYMETRY, FROM METHOD TO APPLICATION  
Francesco Chiocci, Sapienza University of Rome, Italy  
University of Naples “Parthenope” – Aula Magna |
| 17:00 - 18:00 | **SESSION 3**  
SURVEYING IN ITALY: NATIONAL STANDARDS  
Nicola Marco Pizzeghello, Italian Hydrographic Institute, Italian Navy, Italy  
University of Naples “Parthenope” – Aula Magna |
| 19:30 - 22:00 | **WELCOME PARTY**  
University of Naples “Parthenope”  
Via Ammiraglio Ferdinando Acton, 38 |
## Program Schedule - Thursday, October 12, 2017

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>8:30 - 17:30</td>
<td><strong>REGISTRATION</strong> - University of Naples &quot;Parthenope&quot;</td>
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<tr>
<td>9:00 - 9:30</td>
<td><strong>Welcome Addresses</strong> - University of Naples &quot;Parthenope&quot; – Aula Magna</td>
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<tr>
<td>9:30 - 10:30</td>
<td><strong>Invited Speech</strong> - Pierre-Marie Poulain</td>
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<td>University of Naples &quot;Parthenope&quot; – Aula Magna</td>
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<tr>
<td>10:30 - 11:00</td>
<td><strong>COFFEE BREAK</strong> - University of Naples &quot;Parthenope&quot;</td>
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<td>University of Naples &quot;Parthenope&quot; Hall n. 1</td>
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<td>University of Naples &quot;Parthenope&quot; Hall n. 2</td>
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| 11:00 - 12:40 | General Session  
|              | PART I                                                                |
|            | Multidisciplinary Observation Systems  
|              | PART I                                                                |
|            | Autonomous Moving Monitoring Systems in Oceanography                  |
| 12:40 - 14:00 | **LUNCH** - University of Naples "Parthenope"                          |
| 14:00 - 15:40 | Biological Measurements at Sea and in the Sea                         |
|            | ROUND TABLE  
|            | Multidisciplinary Observation Systems                                  |
|            | Visit to Research Vessel VETTORIA                                     |
|            | FIRST GROUP                                                           |
| 15:40 - 16:00 | **COFFEE BREAK** - University of Naples "Parthenope"                 |
| 16:00 - 17:40 | Underwater Measurement for 3D Characterization of Subsea Objects      |
|            | Multidisciplinary Observation Systems  
|            | PART II                                                               |
|            | Visit to Research Vessel VETTORIA                                     |
|            | SECOND GROUP                                                          |
| 20:30 - 23:00 | **GALA DINNER**  
<p>|            | &quot;PIZZERIA REGINA MARGHERITA&quot;                                          |
|            | Via Partenope, 19 - Naples                                            |</p>
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<td>University of Naples &quot;Parthenope&quot; - Hall n. 1</td>
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<tr>
<td>10:00 - 11:40</td>
<td>General Session</td>
<td>Acquisition, Processing and Interpretation of Marine Geology Data - PART I</td>
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<td>University of Naples &quot;Parthenope&quot; - Hall n. 5</td>
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<tr>
<td>11:40 - 13:15</td>
<td>COFFEE BREAK - POSTER SESSION</td>
<td>University of Naples &quot;Parthenope&quot;</td>
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<tr>
<td>13:15 - 14:20</td>
<td>LUNCH</td>
<td>University of Naples &quot;Parthenope&quot;</td>
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<tr>
<td>14:20 - 14:40</td>
<td>AWARD CEREMONY</td>
<td>University of Naples &quot;Parthenope&quot; - Hall n. 5</td>
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<tr>
<td>14:40 - 16:20</td>
<td>Metrological Traceability of Oceanic Parameters - PART I</td>
<td>Acquisition, Processing and Interpretation of Marine Geology Data - PART II</td>
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<tr>
<td>16.20 – 16.40</td>
<td>COFFEE BREAK</td>
<td>University of Naples &quot;Parthenope&quot;</td>
</tr>
<tr>
<td>16:40 – 18:20</td>
<td>Metrological Traceability of Oceanic Parameters - PART II</td>
<td>Acquisition, Processing and Interpretation of Marine Multibeam Data</td>
</tr>
<tr>
<td>18:20 - 18:30</td>
<td>CLOSING CEREMONY</td>
<td>University of Naples &quot;Parthenope&quot;</td>
</tr>
</tbody>
</table>
Wednesday, October 11 - Tutorials

15:00 - 17:00
REGISTRATION
Place: University of Naples "Parthenope", Via Ammiraglio Ferdinando Acton, 38

15:00 - 17:00
TUTORIALS
Chair: Francesca Budillon, IAMC CNR, Italy
Room: Aula Magna, University of Naples "Parthenope"

SESSION 1 - 15:00 - 16:00
SATELLITE OCEANOGRAPHY
Maurizio Migliaccio, University of Naples "Parthenope", Italy

SESSION 2 - 16:00 - 17:00
MULTIBEAM SWATH BATHYMETRY, FROM METHOD TO APPLICATION
Francesco Chiocci, Sapienza University of Rome, Italy

SESSION 3 - 17:00 - 18:00
SURVEYING IN ITALY: NATIONAL STANDARDS
Nicola Marco Pizzeghello, Italian Hydrographic Institute, Italian Navy, Italy

19:30 - 22:00
WELCOME PARTY
Place: University of Naples "Parthenope"
Via Ammiraglio Ferdinando Acton, 38
Thursday, October 12 - Technical Sessions

8:30 - 17:30
REGISTRATION
Place: University of Naples "Parthenope", Via Ammiraglio Ferdinando Acton, 38

9:00 - 9:30
Welcome Addresses
Room: University of Naples "Parthenope", Aula Magna

9:30 - 10:30
Plenary Opening Session
Chair: Giorgio Budillon, University of Naples "Parthenope", Italy
Room: University of Naples "Parthenope", Aula Magna

The New Frontiers in In-Situ Ocean Observing Systems

Pierre-Marie Poulain

Istituto Nazionale di Oceanografia e di Geofisica Sperimentale, Italy

10:30 - 11:00
Coffee Break
Place: University of Naples "Parthenope"
**11:00 - 12:20**

**General Track – PART I**

**Chairs:** Pasquale Daponte, *University of Sannio, Italy*
Matias Carandell Widmer, *Universitat Politècnica de Catalunya, Spain*

**Room:** *University of Naples "Parthenope", Hall n.1*

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**11:00**  
*Sea level variability in the Gulf of Genoa*  
Paola Picco, *Italian Hydrographic Institute, Italy*

**11:40**  
*Comparison between image analysis techniques for boat shape measurements*  
Sofia Catalucci, *University of Nottingham, UK*
Roberto Marsili, *University of Perugia, Italy*
Michele Moretti, *University of Perugia, Italy*
Gianluca Rossi, *University of Perugia, Italy*

**12:00**  
*A High Accuracy Attitude System for a Tailless Underwater Glider*  
Enrico Petritoli, *Università degli Studi Roma Tre, Italy*
Fabio Leccese, *Università degli Studi Roma Tre, Italy*

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**11:00 - 12:40**

**Session on Multidisciplinary observation systems - PART I**

**Chairs:** Fabio Conversano, *Stazione Zoologica Anton Dohrn of Naples, Italy*
Paolo Favali, *Istituto Nazionale di Geofisica e Vulcanologia, Italy*

**Room:** *University of Naples "Parthenope", Hall n.5*

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**11:00**  
*Sea Surface Temperature monitoring in Italian Seas: analysis of long-term trends and short-term dynamics*  
M. Picone, *ISPRA, CN-COS, Italy*
A. Orasi, *ISPRA, CN-COS, Italy*
G. Nardone, *ISPRA, CN-COS, Italy*

**11:20**  
*Seasonal changes in coastal fish assemblages by multiparametric video observatory monitoring*
11:40 Inter-comparison of HF radar wave measurements in the Malta-Sicily Channel
Arianna Orasi, Italian National Institute for Environmental Protection and Research, Italy
Marco Picone, Italian National Institute for Environmental Protection and Research, Italy
Aldo Drago, University of Malta, Malta
Fulvio Capodici, University of Palermo, Italy
Adam Gauci, University of Malta, Malta
Gabriele Nardone, Italian National Inst. for Environmental Protection and Research, Italy
Roberto Inghilesi, Italian National Institute for Environmental Protection and Research, Italy
Joel Azzopardi, University of Malta, Malta
Anthony Galea, University of Malta, Malta
Giuseppe Ciraolo, University of Palermo, Italy

12:00 The Italian Fixed-point Observatory Network for marine environmental monitoring –IFON. State of the art and upgrades during the Italian flagship project RITMARE (2012 – 2016)
M. Ravaioli, ISMAR CNR, Italy
C. Bergami, IBAF CNR, Italy
F. Riminucci, Consorzio Proambiente Sc.r.l., CNR, Italy
S. Aracri, Consorzio Proambiente Sc.r.l., CNR, Italy
S. Aliani, ISMAR CNR, Italy
M. Bastianini, ISMAR CNR, Italy
A. Bergamasco, IAMC, Italy
C. Bommarito, ENEA, Italy
M. Borghini, ISMAR CNR, Italy
R. Bozzano, ISSIA CNR, Italy
F. Brunetti, ISMAR CNR, Italy
C. Cantoni, ISMAR CNR, Italy
E. Caterini, ISMAR CNR, Italy
V. Cardin, Istituto Nazionale OGS, Italy
C. Cesarini, CLU srl, Italy
R.R. Colucci, ISMAR CNR, Italy
E. Crisafi, IAMC, Italy
A. Crise, Istituto Nazionale OGS, Italy
R. D’Adamo, ISMAR CNR, Italy
C. Fanara, Istituto Nazionale OGS, Italy
A. Giorgetti, Istituto Nazionale OGS, Italy
F. Grilli, ISMAR CNR, Italy
12:20 Underwater acoustic calibration standards for frequencies below 1 kHz: current status of EMPIR “UNAC-LOW” project

S. Buogo, CNR-INSEAN, Italy
S. Mauro, CNR-INSEAN, Italy
J.F. Borsani, Istituto Superiore per la Protezione e la Ricerca Ambientale, Italy
S. Curcuruto, Istituto Superiore per la Protezione e la Ricerca Ambientale, Italy
A. Biber, TÜBITAK-MAM, Underwater Acoustics Laboratory, Kocaeli, Turkey
A.C. Çorakçi, TÜBITAK-MAM, Underwater Acoustics Laboratory, Kocaeli, Turkey
A. Golick, TÜBITAK-MAM, Underwater Acoustics Laboratory, Kocaeli, Turkey
S. Robinson, National Physical Laboratory, United Kingdom
G. Hayman, National Physical Laboratory, United Kingdom
S. Barrera-Figueroa, Dansk Fundamental Metrologi A/S, Denmark
M. Linné, Totalförsvarets forskningsinstitut, Sweden
P. Sigray, Totalförsvarets forskningsinstitut, Sweden
P. Davidsson, Totalförsvarets forskningsinstitut, Sweden
Session on Autonomous Moving Monitoring Systems in Oceanography

**Chairs:** Pierre-Marie Poulain, *OGS, Italy*
Enrico Zambianchi, *University of Naples "Parthenope", Italy*

**Room:** *University of Naples "Parthenope", Hall 2*

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**11:00 An Autonomous Imaging System for Argo Floats**
Simone Marini, *Institute of Marine Sciences, National Research Council of Italy, Italy*
Lorenzo Corgnati, *Institute of Marine Sciences, National Research Council of Italy, Italy*
Carlo Mantovani, *Institute of Marine Sciences, National Research Council of Italy, Italy*
Mauro Bastianini, *Institute of Marine Sciences, National Research Council of Italy, Italy*
Ennio Ottaviani, *On Advanced Industrial Research s.r.l., Italy*
Emanuela Fanelli, *3Marine Environment Research Centre, Italy*
Jacopo Aguzzi, *Instituto de Ciencias del Mar, Spain*
Annalisa Griffa, *Institute of Marine Sciences, National Research Council of Italy, Italy*
Pierre Marie Poula

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**11:16 Underwater gliders to monitor coastal and open sea processes**
E. Mauri, *OGS, Italy*
Z. Kokkini, *OGS, Italy*
R. Gerin, *OGS, Italy*
Pierre Marie Poulan, *OGS, Italy*

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**11:32 Algerian Basin Circulation Unmanned Survey – ABACUS: Glider missions to monitor Mediterranean water characteristics and relevant mesoscale features during falls 2014-2016**
Yuri Cotroneo, *Università degli Studi di Napoli “Parthenope”, Italy*
Giuseppe Aulicino, *Università degli Studi di Napoli “Parthenope”, Italy*
Simon Ruiz, *Instituto Mediterráneo de Estudios Avanzados, Spain*
Ananda Pascual, *Instituto Mediterráneo de Estudios Avanzados, Spain*
Antonio Sanchez Roman, *Instituto Mediterráneo de Estudios Avanzados, Spain*
Giannetta Fusco, *Università degli Studi di Napoli “Parthenope”, Naples, Italy*
Marc Torner, *Balearic Islands Coastal Observing and Forecasting System, Spain*
Emma Heslop, *Balearic Islands Coastal Observing and Forecasting System, Spain*
Giorgio Budillon, *Università degli Studi di Napoli “Parthenope”, Italy*
Joaquin Tintoreré, *Balearic Islands Coastal Observing and Forecasting System, Spain*

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**11:48 Monitoring Temperature, Salinity and Oxygen in Marginal Seas with Argo Floats**
Pierre Marie Poulain, *OGS, Italy*
Giulio Notarstefano, *OGS, Italy*
Massimo Pacciaorni, *OGS, Italy*

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**12:04 Detect the drogue presence of SVP drifters from the wind slippage**
Milena Menna, *OGS, Italy*
12:20 ISME trends: Autonomous Surface and Underwater Vehicles for Geoseismic Survey
Gianluca Antonelli, ISME - University of Cassino and Southern Lazio, Italy
Filippo Arrichiello, ISME - University of Cassino and Southern Lazio, Italy
Andrea Cañi, ISME - University of Pisa, Italy
Giuseppe Caslino, ISME - University of Genova, Italy
Giovanni Indiveri, ISME - University of Salento, Italy
Lorenzo Pollini, ISME - University of Pisa, Italy
Enrico Simetti, ISME - University of Genova, Italy

12:40 - 14:00 LUNCH
Place: University of Naples "Parthenope"

14:00 - 16:00
Session on Biological Measurements at Sea and in the Sea
Chairs: Raffaella Casotti, Stazione Zoologica Anton Dohrn of Naples, Italy
Gérald Grégori, Aix Marseille Université, France
Room: University of Naples "Parthenope", Hall 2

14:00 Loggerhead Turtles as Oceanographic Sampling Platforms
Sandra Hochscheid, Stazione Zoologica Anton Dohrn of Naples, Italy
Marco Girardello, Stazione Zoologica Anton Dohrn of Naples, Italy
Fulvio Maffucci, Stazione Zoologica Anton Dohrn of Naples, Italy
Monica Blasi, Associazione Filicudi Wildlife, Italy

14:20 A new automated flow cytometer for high frequency in situ characterisation of heterotrophic microorganisms and their dynamics in aquatic ecosystems
Tina Silovic, Aix Marseille Université, France
Gérald Grégori, Aix Marseille Université, France
Mathilde Dugenne, Aix Marseille Université, France
Melilotus Thyssen, Aix Marseille Université, France
François Calendreau, Aix Marseille Université, France
Thibaut Cossart, Aix Marseille Université, France
Harrie Kools, Cytobuoy, Netherlands
George Dubelaar, Cytobuoy, Netherlands
Michel Denis, Aix Marseille Université, France
14:40 Spatial distribution of phytoplankton communities in the English Channel, at sub-mesoscale, by applying innovative automated approaches
Arnaud Louchart, Université du Littoral-Côte d’Opale, Wimereux, France
Fabrice Lizon, Université de Lille, Wimereux, France
Alain Lefebvre, Laboratoire Environnement Ressources, IFREMER LER/BL, France
Fanny Bouchaud, Université du Littoral-Côte d’Opale, Wimereux, France
Guillaume Wacquet, Université du Littoral-Côte d’Opale, Wimereux, France
Claire Dedécker, Université du Littoral-Côte d’Opale, Wimereux, France
Jessica Delarbre, Université du Littoral-Côte d’Opale, Wimereux, France
Hugues Wattiez, Université du Littoral-Côte d’Opale, Wimereux, France
Luis Felipe Artigas, Université du Littoral-Côte d’Opale, Wimereux, France

15:00 Phytoplankton dynamics by autonomous high-frequency flow cytometry from a floating buoy in the Gulf of Naples
Mark A Van Dijk, Stazione Zoologica Anton Dohrn of Naples, Italy
Augusto Passarelli, Stazione Zoologica Anton Dohrn of Naples, Italy
Fabio Conversano, Stazione Zoologica Anton Dohrn of Naples, Italy
Raffaella Casotti, Stazione Zoologica Anton Dohrn of Naples, Italy

15:20 Real-Time microbial concentrations by automated on-line flow cytometry for marine coastal monitoring
Raffaella Casotti, Stazione Zoologica Anton Dohrn of Naples, Italy
Cecilia Balestra, Stazione Zoologica Anton Dohrn of Naples, Italy
Mark Van Dijk, Stazione Zoologica Anton Dohrn of Naples, Italy
Augusto Passarelli, Stazione Zoologica Anton Dohrn of Naples, Italy
Jürg Sigrist, Department of Environmental Microbiology, Switzerland
Frederik Hammes, Department of Environmental Microbiology, Switzerland

15:40 Bringing single-cell-analysis to the sea with CytoSense technology
George Dubelaar, CytoBuoy b.v.

14:00 - 15:40
ROUND TABLE - Multidisciplinary observation systems
Chairs: Giorgio Budillon, University of Naples “Parthenope”, Italy
Fabio Conversano, Stazione Zoologica Anton Dohrn of Naples, Italy
Paolo Favali, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Room: University of Naples “Parthenope”, Hall 5
14:00 - 15:40
Technical Visit to Research Vessel VETTORIA - Group 1

15:40 - 16:00
Coffee Break
Place: University of Naples “Parthenope”

16:00 - 17:40
Session on Underwater Measurement for 3D Characterization of Subsea Objects
Chair: Enrico Primo Tomasini, Università Politecnica delle Marche, Italy
Room: University of Naples “Parthenope”, Hall n.1

16:00 Evaluation and comparison of non-contact measurement techniques for the observation and shape reconstruction of sessile benthic organisms
Rachele Napolitano, Università Politecnica delle Marche, Italy
Massimiliano Guarneri, ENEA, Italy
Maria Cristina Gambi, Stazione Zoologica Anton Dohrn of Naples, Italy
Enrico Primo Tomasini, Università Politecnica delle Marche, Italy

16:20 Improved Operational Efficiency using Dynamic Underwater Laser Mapping
Sean Elmar, 2G Robotics Inc, Canada

16:40 Procedures and Technologies for 3D Reconstruction with Divers of Underwater Archaeological Sites and Marine Protected Areas
Luca Panebianco, Università Politecnica delle Marche, Italy
Silvia Zingaretti, Università Politecnica delle Marche, Italy
Nicolò Ciuccoli, Università Politecnica delle Marche, Italy
Corentin Altepe, Università Politecnica delle Marche, Italy
S. Murat Egi, Galatasaray University, Turkey
Fiorenza Micheli, DAN EUROpe Research Department, Italy
David Scardozzi, Università Politecnica delle Marche, Italy

17:00 Development of a laser scanner for analysis of vast submerged archaeological areass
Barbara Davide Petriaggi, Istituto Superiore per la Conservazione ed il Restauro, Italy
Gabriele Gomez de Ayala, Italy
16:00 - 17:40
Session on Multidisciplinary observation systems - PART II

Chairs: Fabio Conversano, Stazione Zoologica Anton Dohrn of Naples, Italy
Paolo Favali, Istituto Nazionale di Geofisica e Vulcanologia, Italy

Room: University of Naples "Parthenope", Hall n.5

16:00 Obsea, a marine sensors testing site for metrology
Matias Carandell Widmer, Universitat Politècnica de Catalunya, Spain
Albert Garcia-Benad, Universitat Politècnica de Catalunya, Spain
Joaquin del Rio Fernandez, Universitat Politècnica de Catalunya, Spain

16:20 Project Humpback Anglerfish
Luca Greco, INGV– Centro Nazionale Terremoti, Italy
Giovanni Vitale, INGV – Centro Nazionale Terremoti, Italy
Antonino D’Alessandro, INGV– Centro Nazionale Terremoti, Italy
Salvatore Scudero, INGV– Centro Nazionale Terremoti, Italy
Francesco Croce, INGV– Centro Nazionale Terremoti, Italy

16:40 Recent developments in measuring small amplitude and slow seafloor vertical displacements using Bottom Pressure Recorders
Francesco Chierici, Istituto di Radioastronomia - INAF, INGV, Italy
Sergio Guardato, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Gian Paolo Donnarumma, Istituto Nazionale di Geofisica e Vulcanologia, Italy
Claudio Martino, Istituto Nazionale di Geofisica e Vulcanologia, Italy
L. Beranzoli, Istituto Nazionale di Geofisica e Vulcanologia, Italy
G. Iannaccone, Istituto Nazionale di Geofisica e Vulcanologia, Italy

17:00 European Multidisciplinary and Water-Column Observatory - European Research Infrastructure Consortium (EMSO ERIC): Challenges and opportunities for Strategic
Paolo Favali, Istituto Nazionale Geofisica e Vulcanologia, Italy

17:20 Status and results from cabled hydrophone arrays deployed in deep sea off East Sicily (EMSO ERIC node)
Paolo Favali, Istituto Nazionale Geofisica e Vulcanologia, Italy

16:00 - 17:40
Technical Visit to Research Vessel Vettoria - Group 2
20:30 - 23:00
GALA DINNER
"PIZZERIA REGINA MARGHERITA"
Via Partenope, 19 - Naples
Friday, October 13 - Technical Sessions

09:00 - 16:10
REGISTRATION
Place: University of Naples "Parthenope", Via Ammiraglio Ferdinando Acton, 38

09:00 - 10:00
Plenary Opening Session
Chair: Maria Rosaria Senatore, University of Sannio, Local CoNISMa Responsible, Italy
Room: University of Naples "Parthenope" - Aula Magna


Prof. Michele Scardi
Tor Vergata University of Rome, Italy
Vice President of CoNISMa

10:00 - 11:00
General Track - PART II
Chair: Salvatore Gaglione, University of Naples "Parthenope", Italy
Room: University of Naples "Parthenope", Hall n.1

10:00 Vessel attitude estimation by camera sensors
Antonio Angrisano, Giustino Fortunato University, Italy
Silvio Del Pizzo, Parthenope University of Naples, Italy
Salvatore Gaglione, Parthenope University of Naples, Italy
Salvatore Troisi, Parthenope University of Naples, Italy
Mario Vultaggio, Giustino Fortunato University, Italy

10:20 The role of sea surface temperature on extreme meteorological events over Liguria
F. Cassola, University of Genova, Italy
F. Ferrari, University of Genova, INFN, CINFAI Consortium, Italy
A. Mazzino, University of Genova, INFN, CINFAI Consortium, Italy
M. M. Miglietta, CNR-ISAC, Italy
10:40 Enhanced pseudorange weighting scheme using local redundancy
Antonio Angrisano, Giustino Fortunato University, Italy
Silvio Del Pizzo, Parthenope University of Naples, Italy
Salvatore Gaglione, Parthenope University of Naples, Italy
Salvatore Troisi, Parthenope University of Naples, Italy
Mario Vultaggio, Giustino Fortunato University, Italy

10:00 - 11:40
Session on Acquisition, Processing and Interpretation of Marine Geology Data – PART I
Chairs: Claudio Pellegrini, National Research Council, Italy
Elena Romano, Isprambiente, Italy
Room: University of Naples "Parthenope", Hall n. 5

10:00 Gathering different marine geology data (seismics, acoustics, sedimentological) to investigate active fluid seepage (AFS) in the southern region of the central Mediterranean Sea
Daniele Spatola, University of Malta, Malta
Aaron Micallef, University of Malta, Malta
Attilio Sulli, University of Palermo, Italy
Gualtiero Basilone, Institute for Coastal Marine Environment, CNR, Italy

10:20 Morpho-sedimentary setting and evolution of Marettimo Valley (Egadi Islands, Sicily) during middle-late Quaternary: interaction between sea level changes and oceanographic circulation
Mauro Agate, University of Palermo, Italy
Stella Tamburrino, Institute for Coastal Marine Environment, CNR, Italy
Attilio Sulli, University of Palermo, Italy
Francesco Placenti, Institute for Coastal Marine Environment, CNR, Italy
Mario Sprovieri, Institute for Coastal Marine Environment, CNR, Italy
Claudio Lo Iacono, National Oceanographic Centre, UK
Salvatore Passaro, Institute for Coastal Marine Environment, CNR, Italy

10:40 Using marine controlled-source electromagnetics to map the occurrence of offshore groundwater: Canterbury Basin, New Zealand
Bradley Allen Weymer, GEOMAR – Helmholtz Centre for Ocean Research Kiel, Germany
Marion Jegn-Kulcsar, GEOMAR – Helmholtz Centre for Ocean Research Kiel, Germany
Katrin Schwalenberg, Bundesanstalt für Geowissenschaften und Rohstoffe, Germany
Sebastian Hölz, GEOMAR – Helmholtz Centre for Ocean Research Kiel, Germany
Zahra Faghih, GEOMAR – Helmholtz Centre for Ocean Research Kiel, Germany
Shuangmin Duan, GEOMAR – Helmholtz Centre for Ocean Research Kiel, Germany
Aaron Micallef, University of Malta, Malta
Joshu Mountjoy, National Institute of Water and Atmospheric Research Ltd, New Zealand
11:00 Measuring growth structure of reef frameworks in Mediterranean deep-water coral-topped mounds
Alessandra Savini, University of Milano-Bicocca, Italy
Marco Taviani, ISMAR, CNR, Italy
Fabio Marchese, University of Milano-Bicocca, Italy
Agostina Vertino, University of Milano-Bicocca, Italy
Cesare Corselli, University of Milano-Bicocca, Italy
Marie-Claire Fabri, IFREMER, France
Andrè Freiwald, Forschungsinstitut Senckenberg, Germany
Joëze Sarrazin, IFREMER, France

11:20 Signal denoising using the Stationary Wavelet Decomposition
Eleonora Stefanutti, Università degli Studi Roma Tre, Italy
Fabio Bruni, Università degli Studi Roma Tre, Italy

11:40 - 13:15 POSTER SESSION
Chairs: Fabio Leccese, Università degli Studi Roma Tre, Italy
Giannetta Fusco, University of Naples "Parthenope", Italy
Place: University of Naples "Parthenope"

PS1 A High Accuracy Navigation System for a Tailless Underwater Glider
Enrico Petritoli, Università degli Studi Roma Tre, Italy
Fabio Leccese, Università degli Studi Roma Tre, Italy

PS2 Instrumentation and Geotechnical Measurements on Submarine Contaminated Sediments
Francesco Adamo, Polytechnic University of Bari, Italy
Gregorio Andria, Polytechnic University of Bari, Italy
Federica Cotecchia, Polytechnic University of Bari, Italy
Attilio Di Nisio, Polytechnic University of Bari, Italy
Anna Maria Lucia Lanzolla, Polytechnic University of Bari, Italy
Daniela Miccoli, Polytechnic University of Bari, Italy
Francesca Sollecito, Polytechnic University of Bari, Italy
Maurizio Spadavecchia, Polytechnic University of Bari, Italy
Francesco Todaro, Polytechnic University of Bari, Italy
Claudia Vitone, Polytechnic University of Bari, Italy

PS3 Exploring and monitoring deep-sea using underwater video system
Gianfranco D’Onghia, Università degli Studi di Bari Aldo Moro, Italy
Francesca Capezzuto, Università degli Studi di Bari Aldo Moro, Italy
Roberto Carlucci, Università degli Studi di Bari Aldo Moro, Italy
PS4  The nothern Adriatic sea: a long term ecological site and an ecological observatory – structure and perspectives
Mauro Bastianini, Istituto di Scienze Marine, CNR-ISMAR, Italy
Francesco Acri, Istituto di Scienze Marine, CNR-ISMAR, Italy
Sonia Albertazzi, Istituto di Scienze Marine, CNR-ISMAR, Italy
Caterina Bergami, Istituto di Scienze Marine, Istituto di Biologia Agro-ambientale e Forestale, Italy
Fabrizio Bernardi Aubry, Istituto di Scienze Marine, CNR-ISMAR, Italy
Elisa Camatti, Istituto di Scienze Marine, CNR-ISMAR, Italy
Lucilla Capotondi, Istituto di Scienze Marine, CNR-ISMAR, Italy
Bruno Cataletto, Istituto Nazionale di Oceanografia e di Geofisica Sperimentale, Italy
Alessandro Coluccelli, Università Politecnica delle Marche, Italy
Paola Del Negro, Istituto Nazionale di Oceanografia e di Geofisica Sperimentale, Italy
Patrizia Giordano, Istituto di Scienze Marine, CNR-ISMAR, Italy
Federica Grilli, Istituto di Scienze Marine, CNR-ISMAR, Italy
Marina Lipizer, Istituto Nazionale di Oceanografia e di Geofisica Sperimentale, Italy
Mauro Marini, Istituto di Scienze Marine, CNR-ISMAR, Italy
Annalisa Minelli, Istituto di Scienze Marine, CNR-ISMAR, Italy
Alessandro Oggioni, Istituto per il Rilevamento Elettromagnetico dell’Ambiente, Italy
Marco Pansera, Istituto di Scienze Marine, CNR-ISMAR, Italy
Pierluigi Penna, Istituto di Scienze Marine, CNR-ISMAR, Italy
Mariangela Ravaioni, Istituto di Scienze Marine, CNR-ISMAR, Italy
Francesco Riminucci, Istituto di Scienze Marine, Consorzio Proambiente, Italy
Alessandro Sarretta, Istituto di Scienze Marine, CNR-ISMAR, Italy
Giuseppe Stanghellini, Istituto di Scienze Marine, CNR-ISMAR, Italy
Cecilia Totti, Università Politecnica delle Marche, Italy
Giorgio Socal, Istituto di Scienze Marine, CNR-ISMAR, Italy
Alessandra Pugnetti, Istituto di Scienze Marine, CNR-ISMAR, Italy

PS5  Coastal monitoring of chemical-physical parameters with fixed platforms: Gulf of Naples and Bagnoli Bay
Fabio Conversano, Stazione Zoologica Anton Dohrn of Naples, Italy
Raffaella Casotti, Stazione Zoologica Anton Dohrn of Naples, Italy
Augusto Passarelli, Stazione Zoologica Anton Dohrn of Naples, Italy
PS6  Precision, accuracy and sources of errors in multibeam data acquisition and processing for a correct interpretation of the backscatter data (both from seafloor and water column)
Sara Innangi, Istituto per l’Ambiente Marino Costiero, IAMC-CNR, Napoli, Italy
Renato Tonielli, Istituto per l’Ambiente Marino Costiero, IAMC-CNR, Napoli, Italy

PS7  Morphometric measures to assess the maturity of the submerged drainage basins. The case of the Taranto Canyon upper reach
A. Meo, University of Sannio, CoNISMa, Benevento, Italy
F.L. Chiocci, University Sapienza, CoNISMa, Rome, Italy
M.R. Senatore, University of Sannio, CoNISMa, Benevento, Italy

PS8  Morphological and morphometric analysis of bed forms in the Bonifacio channel (Mediterranean occidental)
Antonietta Meleddu, University of Cagliari, Italy
Paolo Emanuele Orrù, University of Cagliari, Italy
Giacono Deiana, University of Cagliari, Italy

PS9  Discovery and survey of complex pockmarks, hydrate pingoes, and fluid flow pipes at Nyegga, offshore mid-Norway
Martin Hovland, Tech Team Solutions, Norway

PS10 Uncertainty of Alkalinity Measurement Values
Barbara Velasco Aneses, Universidade de Lisboa, Portugal
Cristina Maria Oliveira, Universidade de Lisboa, Portugal
Ricardo Jorge Silva, Universidade de Lisboa, Portugal
Maria Filomena Camoes, Universidade de Lisboa, Portugal

Elena Romano, Italian Institute for Environmental Protection and Research, Italy
Maria Celia Magno, Italian Institute for Environmental Protection and Research, Italy
Luisa Bergamin, Italian Institute for Environmental Protection and Research, Italy

PS12 Reliable High Resolution Physical Properties Correlation in sediments as a Powerful Tool for Geological Exploitation and Natural Hazar Issues
Marina Iorio, IAMC CNR, Italy
Antimo Angelino, IAMC CNR, Italy
Francesca Budillon, IAMC CNR, Italy
Donatella D. Insinga, IAMC CNR, Italy
Agostino Meo, University of Sannio, Italy
Maria Rosaria Senatore, University of Sannio, Italy
PS13  A Hierarchical Monitoring Program for the Characterization of Terrestrial Discharge into Coastal Water
Claudia Ferrara, University of Naples Parthenope, Italy
Massimiliano Lega, University of Naples Parthenope, Italy
Giannetta Fusco, University of Naples Parthenope, Italy
Paul Bishop, University of Rhode Island, US
Theodore Endreny, College of Environmental Science and Forestry, US

PS14  Multi-parametric Sensor Network for Water Quality Monitoring
Ján Šaliga, Technical University of Kosice, Slovakia
Imrich Andráš, Technical University of Kosice, Slovakia
Linus Michaeli, Technical University of Kosice, Slovakia
Dušan Kocur, Technical University of Kosice, Slovakia
Pavol Galajda, Technical University of Kosice, Slovakia
Miloš Drutarovský, Technical University of Kosice, Slovakia
Ludmila Maceková, Technical University of Kosice, Slovakia

PS15  Monitoring system for the sea: analysis of meteo, wave and current data
Elvira Armenio, Polytechnic University of Bari, Italy
Francesca De Serio, Polytechnic University of Bari, Italy
Michele Mossa, Polytechnic University of Bari, Italy
Diana De Padova, Polytechnic University of Bari, Italy

PS16  High resolution with small budget: the “GeoDive” method for detailed 3D reconstruction of submerged morphologies and related measurements
Giovanni Gaglianone, Sapienza University of Rome, Italy
Jacopo Crognale, Sapienza University of Rome, Italy
Carlo Esposito, Sapienza University of Rome, Italy

PS17  Dielectric constant determination using bistatic ground-penetrating radar: a case study at the Colombaia marine archeological area, Trapani, Italy
Vincenzo Di Fiore, Institute for Coastal Marine Environment, CNR, Italy
Elena Coppola, Università di Napoli Federico II, Italy
Giuseppe Cavuoto, Institute for Coastal Marine Environment, CNR, Italy
Nicola Pelosi, Institute for Coastal Marine Environment, CNR, Italy
Michele Punzo, Institute for Coastal Marine Environment, CNR, Italy
Daniela Tarallo, Institute for Coastal Marine Environment, CNR, Italy
Giorgio Tranchida, Institute for Coastal Marine Environment, CNR, Italy
PS18  Predictability of sea wave anomalous (microtsunamis modeling) by submarine landslides applied to Cirò Marina coast along the Calabro Ionian margin
Vincenzo Di Fiore, Institute for Coastal Marine Environment, URT open Marina Lab, CNR, Italy
Lucio Amato, Tecno In SpA, URT open Marina Lab, CNR, Italy
Giuseppe Cavuoto, Institute for Coastal Marine Environment, CNR, Italy
Ennio Marsella, Institute for Coastal Marine Environment, URT open Marina Lab, CNR, Italy
Michele Punzo, Institute for Coastal Marine Environment, CNR, Italy
Daniela Tarallo, Institute for Coastal Marine Environment, CNR, Italy

PS19  Application of X-Band Wave Radar for coastal dynamic analysis: case test of Bagnara Calabra (south Tyrrhenian Sea, Italy)
Michele Punzo, Institute for Coastal Marine Environment, CNR, Italy
Giuseppe Cavuoto, Institute for Coastal Marine Environment, CNR, Italy
Vincenzo Di Fiore, Institute for Coastal Marine Environment, CNR, Italy
Daniela Tarallo, Institute for Coastal Marine Environment, CNR, Italy
Giovanni Ludeno, Institute for Electromagnetic Sensing of the Environment, CNR, Italy
Rosanna De Rosa, University of Calabria, Italy
Giuseppe Cianflone, University of Calabria, Italy
Rocco Dominici, University of Calabria, Italy
Michele Iavarone, Institute for Coastal Marine Environment, CNR, Italy
Fabrizio Lirer, Institute for Coastal Marine Environment, CNR, Italy
Nicola Pelosi, Institute for Coastal Marine Environment, CNR, Italy
Laura Giordano, Institute for Electromagnetic Sensing of the Environment, CNR, Italy
Antonio Natale, Institute for Electromagnetic Sensing of the Environment, CNR, Italy
Ennio Marsella, Institute for Coastal Marine Environment, CNR, Italy

11:40 - 13:15  DEMO SESSION
Place: University of Naples "Parthenope"

DEMO1  Real-time view of oceanographic data from continuous monitoring systems
Fabio Conversano, Stazione Zoologica Anton Dohrn of Naples, Italy
Augusto Passarelli, Stazione Zoologica Anton Dohrn of Naples, Italy
Cosimo Vestito, Stazione Zoologica Anton Dohrn of Naples, Italy

DEMO2  Drones for Metrology for the Sea
Pasquale Daponte, University of Sannio, Italy
Francesco Picariello, University of Sannio, Italy
Maria Riccio, University of Sannio, Italy
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<td>13.15 - 14:20</td>
<td>LUNCH</td>
<td>Place: University of Naples &quot;Parthenope&quot;</td>
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<td>14.20 - 14:40</td>
<td>AWARD CEREMONY</td>
<td>Place: University of Naples &quot;Parthenope&quot;, Hall n. 5</td>
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<tr>
<td>14:40 - 16:20</td>
<td>Session on Metrological Traceability of Oceanic Parameters - PART I</td>
<td>University of Naples &quot;Parthenope&quot;, Hall 1</td>
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<tr>
<td>14:40</td>
<td>JPI Oceans and the European Marine Sensor Calibration Action - Keynote Lecture</td>
<td>George Petihakis, Institute of Oceanography, Hellenic Centre for Marine Research, Greece Anastasios M. Lekkas, Norwegian University of Science and Technology, Norway</td>
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<td>15:00</td>
<td>Carbon Dioxide Determination in Atmosphere and Seawater: Approaches for the Comparability of Measurement Results</td>
<td>Francesca Rolle, Istituto Nazionale di Ricerca Metrologica – INRIM, Italy Michela Sega, Istituto Nazionale di Ricerca Metrologica – INRIM, Italy</td>
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<td>15:20</td>
<td>Ocean acidification: an emerging metrological challenge</td>
<td>Daniela Stoica, Laboratoire National de Métrologie et d’Essais, France Florence Salvetat, Institut Français de Recherche pour l’exploitation de la Mer, France Paola Fisicaro, Laboratoire National de Métrologie et d’Essais, France</td>
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<td>15:40</td>
<td>Uncertainty evaluation of CTD measurements: a metrological approach to water-column coastal parameters in the Gulf of La Spezia area</td>
<td>G. Raiteri, ENEA - Marine Environment Research Centre, Italy A. Bordone, ENEA - Marine Environment Research Centre, Italy T. Ciuffardi, ENEA - Marine Environment Research Centre, Italy F. Pennecchi, INRiM - Istituto Nazionale di Ricerca Metrologica, Italy</td>
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<td>16:00</td>
<td>Calibration of compass and tilt sensors of currentmeters and currents profilers</td>
<td>M. Le Menn, Service Hydrographique et Océanographique de la Marine, France A. Lusven, Service Hydrographique et Océanographique de la Marine, France E. Bongiovanni, Service Hydrographique et Océanographique de la Marine, France P. Le Du, Service Hydrographique et Océanographique de la Marine, France D. Rouxel, Service Hydrographique et Océanographique de la Marine, France L. Pacaud, Service Hydrographique et Océanographique de la Marine, France</td>
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<td>14:40</td>
<td><strong>Grain Size Analysis: A Comparison Between Laser Granulometer and Sedigraph</strong>&lt;br&gt;Maria Celia Magno, <em>Italian Institute for Environmental Protection and Research, Italy</em>&lt;br&gt;Francesco Venti, <em>Italian Institute for Environmental Protection and Research, Italy</em>&lt;br&gt;Giovanni Gaglianone, <em>Sapienza University of Rome, Italy</em>&lt;br&gt;Giancarlo Pierfranceschi, <em>Italian Institute for Environmental Protection and Research, Italy</em>&lt;br&gt;Elena Romano, <em>Italian Institute for Environmental Protection and Research, Italy</em></td>
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<td>15:00</td>
<td><strong>Seismotectonics in the North-Western Sicily Continental Margin: implications for Geohazard assessment</strong>&lt;br&gt;Attilio Sulli, <em>University of Palermo, Italy</em>&lt;br&gt;Elisabetta Zizzo, <em>University of Palermo, Italy</em>&lt;br&gt;Maurizio Gasparo Morticelli, <em>University of Palermo, Italy</em></td>
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<td>15:20</td>
<td><strong>Integrated geophysical techniques to image short- to very short-term ground deformation associated with unrest at coastal calderas: a case study from the Pozzuoli Bay, Campi Flegrei, South Italy</strong>&lt;br&gt;Marco Sacchi, <em>Institute for Coastal and Marine Environment, CNR, Italy</em>&lt;br&gt;Fabio Matano, <em>Institute for Coastal and Marine Environment, CNR, Italy</em>&lt;br&gt;Salvatore Passaro, <em>Institute for Coastal and Marine Environment, CNR, Italy</em></td>
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<td>15:40</td>
<td><strong>Comparison of Gravity and Vibro Corer for Acquisition of Environmental Data in Highly Impacted Areas. The Case of Augusta Harbor (Eastern Sicily, Italy)</strong>&lt;br&gt;Elena Romano, <em>Italian Institute for Environmental Protection and Research, Italy</em>&lt;br&gt;Maria Celia Magno, <em>Italian Institute for Environmental Protection and Research, Italy</em>&lt;br&gt;Luisa Bergamin, <em>Italian Institute for Environmental Protection and Research, Italy</em>&lt;br&gt;Antonella Ausili, <em>Italian Institute for Environmental Protection and Research, Italy</em></td>
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<td>16:20</td>
<td><strong>Coffee Break</strong>&lt;br&gt;<strong>Place:</strong> <em>University of Naples &quot;Parthenope&quot;</em></td>
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<td>16:40</td>
<td><strong>BIPM, EURAMET and MeteoMet Initiatives - Keynote Lecture</strong></td>
<td>Andrea Merlone, <em>Istituto Nazionale di Ricerca Metrologica</em>, Italy</td>
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<td>17:00</td>
<td><strong>Verification of the metrological Reliability of Standard Seawater Calibration</strong></td>
<td>Steffen Seitz, <em>Physikalisch-Technische Bundesanstalt</em>, Germany</td>
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<td>17:20</td>
<td><strong>Metrological Approach to Seawater pH</strong></td>
<td>Maria Filomena Camões, <em>Universidade de Lisboa</em>, Portugal</td>
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<td>Barbara V. Anes, <em>Universidade de Lisboa</em>, Portugal</td>
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<td>Cristina M. Oliveira, <em>Universidade de Lisboa</em>, Portugal</td>
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<td>Ricardo B. Silva, <em>Universidade de Lisboa</em>, Portugal</td>
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<td>17:40</td>
<td><strong>Traceability of pH values of equimolal TRIS buffered artificial seawater solutions in brackish waters</strong></td>
<td>Frank Bastkowski, <em>Physikalisch-Technische Bundesanstalt</em>, Germany</td>
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<td>Beatrice Sander, <em>Physikalisch-Technische Bundesanstalt</em>, Germany</td>
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<td>Steffen Seitz, <em>Physikalisch-Technische Bundesanstalt</em>, Germany</td>
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<td>Jens Daniel Müller, <em>Leibniz Institute for Baltic Sea Research Warnemünde</em>, Germany</td>
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<td>18:00</td>
<td><strong>Traceable Sea Temperature measurements performed by Optical fibers</strong></td>
<td>C. García Izquierdo, <em>Centro Español de Metrología</em>, Spain</td>
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<td>A. García-Benadi, <em>Research group SARTI, UPC</em>, Spain</td>
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<td>P. Corredera, <em>Instituto de Óptica</em>, Spain</td>
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<td>D. del Campo, <em>Centro Español de Metrología</em>, Spain</td>
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<td>S. Hernandez, <em>Centro Español de Metrología</em>, Spain</td>
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<td>J. del Río Fernandez, <em>Research group SARTI, UPC</em>, Spain</td>
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<td>M. Nogueres-Cervera, <em>Research group SARTI, UPC</em>, Spain</td>
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<td>C. Pulido de Torres, <em>Instituto de Estructura de la Materia</em>, Spain</td>
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16:40 Using geomorphometric techniques to assess spatial distribution and volume of coralligenous bioconstructions (Mediterranean Sea)
Fabio Marchese, University of Milano - Bicocca, Italy
Valentina Alice Bracchi, University of Milano - Bicocca, Italy
Daniela Basso, University of Milano - Bicocca, Italy
Cesare Corselli, University of Milano - Bicocca, Italy
Alessandra Savini, University of Milano - Bicocca, Italy

17:00 On the use of morphometric indicators to improve and simplify the interpretation of multibeam swath bathymetric data: case studies from volcanic and non-volcanic settings
Salvatore Passaro, Institute for Coastal and Marine Environment, CNR, Italy
Guido Ventura, Institute for Coastal and Marine Environment, CNR, Italy

17:20 Repeated bathymetric surveys as a fundamental tool to measure rapid seafloor variations in geologically-active areas: examples from Southern Italian coastlines
Daniele Casalbore, Sapienza University of Rome, Italy

17:40 The seafloor geomorphology of Boka Kotorska Bay
Giovanni Bortoluzzi, Istituto Scienze Marine, CNR, Italy
Federico Giglio, Istituto Scienze Marine, CNR, Italy
Marco Ligi, Istituto Scienze Marine, CNR, Italy
Fabrizio Del Bianco, Istituto Scienze Marine, CNR; Proambiente Scrl, Italy
Valentina Ferrante, Istituto Scienze Marine, CNR; Proambiente Scrl, Italy
Luca Gasperini, Istituto Scienze Marine, CNR, Italy
Mariangela Ravaioli, Istituto Scienze Marine, CNR, Italy

18:00 A tool for a fast, semi-automatic cleaning of multibeam swath bathymetric records from spikes
Salvatore Passaro, Institute for Coastal and Marine Environment, CNR, Italy
18:20 - 18:30
CLOSING CEREMONY
Room: University of Naples "Parthenope", Aula Magna
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