

The 52nd International Liège colloquium on ocean dynamics

ONLINE event (ZOOM), May 17th -21st 2021

PROGRAM

Monday, May 17th, 2021

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| 13:30 - 13:40 | Marilaure Grégoire | Welcome note | Uliège | Belgium |
| 13:40 - 13:55 | Keynote: Soetaert K. | Anthropogenic and natural impacts on North Sea sediments | NIOZ | The Netherlands |
| Session 1 – Assessing the impact of sedimentary changes on the coastal ocean physics, biodiversity and biogeochemistry. | | | | |
| Chairs: Braeckman U. , Soetaert K. | | | | |
| 13:55 - 14:10 | Keynote: Emil de Borger | Unraveling links between functional biodiversity, sediment structure, and nutrient cycling to manage marine ecosystem functions | Royal Netherlands Institute of Sea Research | The Netherlands |
| 14:10 - 14:20 | Annabelle Dairain, Olivier Maire, Guillaume Meynard, Anaïs Richard, Tiffany RodolfoDamiano, Carl Van Colen, Francis Orvain | Sediment dynamics: can we dismantle the effect of bioturbating species on sediment erodibility from their impact on sediment roughness? | University of Caen Normandie | France |
| 14:20 - 14:30 | Xiaoyu Fang, Cozzoli Francesco, Antony Knights, Tom Moens, Karline Soetaert, Carl Van Colen | Upscaling benthos-mediated ecosystem functioning to assess anthropogenic change in the Westerschelde estuary | Ghent University - Marine Biology Research Group | Belgium |
| 14:30 - 14:40 | Agustin Sanchez-Arcilla, Manuel Espino, Vicente Gracia, Marc Mestres, Marta FernandezPedrera | Morphodynamic control on water renovation and quality. Modelling and observations | Laboratori d'Enginyeria Marítima (LIM/UPC- BarcelonaTech) | Spain |
| 14:40 - 14:50 | Daniel Thewes, Emil Stanev, Oliver Zielinski | Long term analysis of the North Sea light climate, using a 3D coupled ecosystem model | Carl-von-Ossietzky-Universität Oldenburg/ICBM | Germany |
| 15:00 - 15:10 | Panel Discussion: Q&A, selected topics discussion | | | |
| 15:10 - 15:30 | Break | | | |
| Session 2 – Science base for marine spatial planning. | | | | |
| Chairs: Steven Degraer, Vanessa Stelzenmüller | | | | |
| 15:30 - 15:45 | Keynote: Vanessa Stelzenmüller | Integrated marine spatial planning and the need to consider socio-ecological trade-offs | Thünen Institute | Germany |
| 15:45 - 15:55 | Lancelot Blondeel, Van Hoey G., Ellen Pecceu | Supporting tools for the Belgian fishery sector towards EBM | Flanders Research Institute for Agriculture, Fisheries and Food | Belgium |
| 15:55 - 16:05 | Kolyuchkina G., Bykhalova O., Syomin V., Simakova U., Mokievsky V., Sergeeva N., Lyubimov I., Podymov O., Basin A., Ostrovskii A. | Plan of National Reserve Utrish expansion in the NE Black Sea | Shirshov Institute of Oceanology Russian Academy of Sciences | Russia |
| 16:05 - 16:15 | Withoutck I., Kafas A., Watret R., Shucksmith R., Mouat B., Doran J., Tett P. | Exploring spatial decision support techniques for siting offshore energy developments | NAFC Marine Centre UHI | United Kingdom |
| 16:15 - 16:25 | De Klerck P. | A holistic framework for ecosystem services using the quintuple helix approach | Flemish Gov. / Territorial Development Program for the Flemish Coastal Region | Belgium |
| 16:25 - 16:45 | Panel Discussion: Q&A, selected topics discussion | | | |
| 16:45 | End of the day | | | |

Tuesday, May 18th, 2021

WinMon.BE side event : Environmental impact of offshore wind farms

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|---------------|--|---|---|---------|
| 9:00 - 9:05 | Vincent Van Quickenborne, Minister of North Sea | Welcome | | |
| 9:05 - 9:15 | Brigitte Lauwaert | Introduction : Setting the Scene | Royal Belgian Institute of Natural Sciences | Belgium |
| 9:15 - 9:40 | Introduction Keynote: Steven Degraer | Using a decade of WinMon.BE results to plan for the future | Royal Belgian Institute of Natural Sciences | Belgium |
| 9:40 - 9:50 | Mirta Zupan, Francis Kerckhof, Bob Rumes & Steven Degraer | The importance of long-term monitoring for environmental impact assessment: epifaunal communities in Belgian OWFs | Royal Belgian Institute of Natural Sciences | Belgium |
| 9:50 - 10:00 | Bob Rumes, Elisabeth Debusschere, Jan Haelters & Alain Norro | Evolution of piling activities because of increasing insights in associated effects | Royal Belgian Institute of Natural Sciences | Belgium |
| 10:00 - 10:10 | Nicolas Vanermen, Wouter Courtens, Marc Van de Walle, Hilbran Verstraete & Eric Stienen | Adaptive survey strategies to assess the impact of OWFs on seabirds | Research Institute for Nature and Forest | Belgium |
| 10:10 - 10:25 | Q & A | | | |
| 10:25 - 10:35 | Break | | | |
| 10:35 - 10:45 | Ulrike Braeckman, Nene Lefaible, Tom Moens, Jan Vanaverbeke & Steven Degraer | Functioning of the benthic ecosystem in OWFs: food webs and biogeochemical cycling | Flanders Research Institute for Agriculture, Fisheries and Food | Belgium |
| 10:45 - 10:55 | Annelies De Backer, Jolien Buyse & Kris Hostens | Accounting for opportunities and threats of offshore wind farms for nature conservation | University of Ghent | Belgium |
| 10:55 - 11:10 | Q & A | | | |
| 11:10 - 11:55 | Panel Discussion: 'WinMon.BE: ready for accommodating the future of OWFs?' Panelists: Ghada El Serafy (Deltares), Annemie Vermeylen (Belgian Offshore Platform), Jesse Verhalle (FPS Health, Food Chain Safety and Environment), Brigitte Lauwaert (RBINS/MUMM) & Steven Degraer (RBINS/MARECO) | | | |
| 11:55 - 12:00 | Steven Degraer | Closing remarks | Royal Belgian Institute of Natural Sciences | Belgium |

Session 3 - Assessing the impact of marine structures on the coastal ocean physics, biodiversity and biogeochemistry

Chairs: Jan Vanaverbeke, Johan Van der Molen

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|---------------|--|--|--|---------------|
| 13:30 - 13:45 | Keynote: Drew Carey | Dynamics of Changing Interfaces from Human Uses in the Coastal Ocean | Inspire Environmental | United States |
| 13:45 - 13:55 | Michela De Dominicis, Judith Wolf, Dina Sadykova, Beth Scott, Alexander Sadykov, Rory O'Hara Murray | Effects of Climate Change and Tidal Stream Energy Extraction on the ecosystem of a shelf sea. | National Oceanography Centre | |
| 13:55 - 14:05 | Geneviève Lacroix, Francis Kerckhof, Léo Barbut, Laurence Vigin, Ilse De Mesel, Steven Degraer | How is connectivity pattern of hard substrate species impacted by artificial structures in the North Sea? | Royal Belgian Institute of Natural Sciences | Belgium |
| 14:05 - 14:15 | Jessica Salaün, Baptiste Vivier, Maxime Navon, Pascal Claquin, Aurore Raoux, Jean-Philippe Pezy, Aurélie Foveau, Sylvain Pioch, Jean-Claude Dauvin | Multidisciplinary and multi-scale assessment of artificial reefs in tidal system | University Paul Valéry, Montpellier 3, CNRS UMR 5172, Laboratoire CEFE | France |
| 14:15 - 14:25 | Anna Ebeling, Nathalie Voigt, Debora Obergfäll, Tristan Zimmermann, Hans-Burkhard Erbslöh, Torben Kirchgeorg, Ingo Weinberg, Johanna Irrgeher, Daniel Pröfrock | Corrosion protection of offshore wind farms: An emerging contamination source for the marine environment? | 1 Helmholtz-Zentrum Geesthacht 2 Universität Hamburg | Germany |
| 14:25 - 14:35 | Evgeny Ivanov, Arthur Capet, Ninon Mavraki, Jan Vanaverbeke, Steven Degraer, Alexander Barth, Eric Delhez, Karlina Soetaert, Marilaure Grégoire | Impact assessment of biofouling communities of Belgian offshore wind farms on the sediment bed using a coupled model | MAST, University of Liège | Belgium |
| 14:35 - 14:55 | Panel Discussion: Q&A, selected topics discussion | | | |

Lighting Talks and Poster session (Gather)

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| 15:15 - 18:00 | | | | |
| 18:00 | | | | |

Wednesday, May 19th, 2021

Session 4 - Indicators definition for ocean health assessment in connection with SDG14 and GES assessment.

Chairs: Van Hoey G., Angel Borja

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|---------------|--|--|--|-----------------|
| 13:30 - 13:45 | Keynote: Ángel Borja | Assessing the ocean health status, using multiple indicators, under an ecosystem-based approach | AZTI | Spain |
| 13:45 - 13:55 | Anne Goffart, Sylvain Coudray | The challenge of using phytoplankton composition for Mediterranean ecosystem health assessment | University of Liège | Belgium |
| 13:55 - 14:05 | Dimitry Van der Zande, Aida Alvera-Azcárate, Charles Troupin, João Felipe Cardoso dos Santos | Eutrophication monitoring in coastal waters: taking advantage of the synergy in multi-scale satellite products | Royal Belgian Institute of Natural Sciences | Belgium |
| 14:05 - 14:15 | Galina Kolyuchkina, Ivan Lyubimov, Vitaly Syomin, Nelli Sergeeva, Alexander Basin, Alexander Ostrovskii | Functional structure of the Black Sea macrozoobenthos as a key indicator for assessing the marine ecosystem health | Shirshov Institute of Oceanology Russian Academy of Sciences | Russia |
| 14:15 - 14:25 | Felien Festjens, Naomi Breine, Nene Lefaible, Jan Wittoeck, Gert Van Hoey | Biological trait modality responses to different anthropogenic pressures in the Belgian part of the North Sea | ILVO | Belgium |
| 14:25 - 14:35 | Marilaure Grégoire, Arthur Capet, Lei Chou, Nathalie Fagel, Audrey Plante, Karlina Soetaert, Adrian Teaca, Luc Vandenbulcke, Molly Lepoint | From species characteristics to ecosystem functions: a trait-based distribution model for upscaling the macrobenthos role in benthic-pelagic coupling over the Black Sea continental shelf | University of Liège | Belgium |
| 14:35 - 14:45 | Olivier Beauchard | Developing an trait-based indicator of marine benthic vulnerability to bottom trawl disturbance | NIOZ | The Netherlands |
| 14:45 - 14:55 | Alexandra Pavlidou, Eleni Rousselaki, Nikolaos Katsiaras, Nomiki Simboura | Assessment of the ecological and eutrophication status of the coastal waters in Aegean Sea, Eastern Mediterranean Sea, in relation to anthropogenic pressures | Hellenic Centre for Marine Research | Greece |
| 14:55 - 15:05 | Laure Van den Bulcke, Annelies Debacker, Kris Hostens, Willem Waegeman, Sara Maes, Sofie Derycke | Implementation of DNA metabarcoding in environmental impact assessments | ILVO | Belgium |
| 15:05 - 15:25 | Panel Discussion: Q&A, selected topics discussion | | | |
| 15:25 - 15:45 | Break | | | |

Session 5 - Multiple stressors, multi-use, cumulative effect assessment, including climate change

Chairs: Breitburg D., Arico S.

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|---------------|--|--|---|----------------|
| 15:45 - 16:00 | Keynote: Rashid Sumaila | Overfishing and the mitigation of climate change and its impacts on marine life | Fisheries Economics Research Unit, University of British Columbia | Canada |
| 16:00 - 16:10 | Jesper Andersen | Relative impacts of multiple stressors in Danish marine waters | NIVA Denmark Water Research | Denmark |
| 16:10 - 16:20 | Alberto Borges, Colin Royer, Jon Lapeyra Martin, Willy Champenois, Mary Scranton, Nathalie Gypens | Productivity and temperature as drivers of seasonal and spatial variations of dissolved methane in the Southern Bight of the North Sea, leading to a response from eutrophication and heatwaves. | University of Liège | Belgium |
| 16:20 - 16:30 | Viviana Otero, Steve Pint, Klaas Deneudt, Jonas Mortelmans, Maarten De Rijcke, Koen Sabbe, Wim Vyverman, Michiel Vandegehuchte and Gert Everaert | Drivers of plankton biomass dynamics at the Belgian Continental Shelf | Flanders Marine Institute (VLIZ) | Belgium |
| 16:30 - 16:40 | Jozef Skakala, David Ford, Jorn Bruggeman, Stefano Ciavatta | Towards a better understanding of the changing North Sea biogeochemistry through the assimilation of multi-platform observations into the ecosystem model | Plymouth Marine Laboratory | United Kingdom |
| 16:40 - 16:50 | Nathalie Niquil, Frida Ben Rais Lasramn, Emma Araignous, Pierre Bourdaud, Ghassen Halouani, Tarek Hattab, François Le Loc'h, Boris Leroy, Quentin Noguès, Aurore Raoux, Georges Safi, Ching-Maria Villanueva, Jean-Claude Dauvin | Promoting an ecosystem approach of marine renewable energy: a set of modelling tools for studying cumulative impacts on ecosystem functioning, based on the bay of Seine case study | CNRS / University Caen Normandy, BOREA | France |
| 16:50 - 17:10 | Panel Discussion: Q&A, selected topics discussion | | | |
| 17:10 | End of the day | | | |

Thursday, May 20th, 2021

Session 5 - Multiple stressors, multi-use, cumulative effect assessment, including climate change

Chairs: Denise Breitburg, Salvatore Arico

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| 13:30 – 13:40 | Karen Wild-allen, SIMA Team | Synthesis of multiple environmental and social economic stressors in a decision support tool to improve sustainable deployment of coastal aquaculture in Chile. | CSIRO Oceans & Atmosphere | Australia |
| 13:40 – 13:50 | Carl Van Colen, Ee Zin Ong, Mark Briffa, David Wethey, Emmanuel Abath, Tom Moens, Sarah Woodin | Clam feeding plasticity alleviates herbivore vulnerability to ocean warming and acidification | Ghent University - Marine Biology Research Group | Belgium |
| 13:50 – 14:00 | Ellen Vlamincx, Carl Van Colen, Jan Vanaverbeke, Tom Moens | Burrowing macrofauna modifies climate change effects on sediment metabolism | Ghent University | Belgium |
| 14:00 – 14:10 | Xavier Desmit, Anja Nohe, Alberto Borges, Theo Prins, Dmitry Van der Zande, Koen Sabbe | Changes in chlorophyll concentration and phenology in the North Sea in relation to de-eutrophication and sea surface warming | Royal Belgian Institute of Natural Sciences | Belgium |
| 14:10 – 14:20 | Roobaert Alizée, Goulven G. Laruelle, Enhui Liao, Peter Landschützer, Nicolas Gruber, Laure Resplandy, Lei Chou, Pierre Regnier | The spatiotemporal dynamics of the sources and sinks of CO2 in the global coastal ocean | ULB | Belgium |
| 14:20 – 14:30 | Larissa K. Schultze, Lucas M. Merckelbach, Nils Christiansen, Ute Daewel, Jochen Horstmann, Siegfried Raasch, Corinna Schrum, Burkard Baschek, Jeffrey R. Carpenter | Changes in stratification and mixing in the wake of offshore wind farm foundations and possible effects on the marine environment | Helmholtz-Zentrum Geesthacht | Germany |
| 14:30 – 14:40 | Justin Tiano, Emil de Borger, Sarah O'Flynn, Chiu Cheng, Karline Soetaert | Disentangling the biogeochemical effects of marine electro-fisheries | NIOZ | The Netherlands |
| 14:40 – 14:50 | Agnieszka Indiana Olbert, Jennifer Kirkpatrick | Mechanisms and impacts of multiple flood drivers on future coastal urban flooding | National University of Ireland Galway | Ireland |
| 14:50 – 15:10 | Panel Discussion: Q&A, selected topics discussion | | | |
| 15:10 – 15:30 | Break | | | |

Session 6 - Ecosystem services

Chairs: Arthur Capet, Farid Dahdouh-Guebas, Steven Degraer

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| 15:30 – 15:45 | Keynote: Helen Ding | The path of using ecosystem services to inform decision making: the current progress, challenges and gaps | World Resources Institute | United States |
| 15:45 - 15:55 | Katrien Van der Biest, Patrick Meire, Annelies Boerema | Assessing co-benefits of marine ecosystem-based measures – methodology for the Belgian coastal ecosystem | Universiteit Antwerpen | Belgium |
| 15:55 – 16:05 | Bryce Van Dam, Helmuth Thomas, Ashley Smyth, Christian Lopes, Mona Norbistrath, Nele Treblin | Blue carbon and alkalinity in contrasting coastal environments | Helmholtz-Zentrum Geesthacht | Germany |
| 16:05 – 16:15 | Leduc M., Fontaine Q., Gobert S., Monnier B., Abadie A., Lejeune P. | Posidonia oceanica meadows: A unique Blue Carbon sink | STARESO | France |
| 16:15 – 16:25 | Jules Pecquet, Maud Mouchet, Sylvie Campagne, François Gevaert, Frida Ben Rais Lasram | A new methodological framework for assessing future Ecosystem Services provided by kelps along the French coasts in a context of climate change | 8187, LOG, Laboratoire d'Océanologie et de Géoscience | France |
| 16:25 – 16:45 | Panel Discussion: Q&A, selected topics discussion | | | |

Session 7 - Assessing the impact of land-based pressures on the coastal environment, river-estuary-coastal ocean coupling.

Chairs: Diego Macias, Marilaure Grégoire

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| 16:45 – 17:00 | Keynote: Marjorie A.M. Friedrichs | Anthropogenic causes of long-term change in the Chesapeake Bay estuary: regional vs. global stressors | Virginia Institute of Marine Science | United States |
| 17:00 – 17:10 | Jianping Gan, Minhan Dai | On hypoxia along the coastal transition zone off Pearl River Estuary and Hong Kong | Hong Kong University of Science and Technology | Hong Kong |
| 17:10 – 17:20 | Aida Alvera-Azcárate, Charles Troupin, Alexander Barth, Jean-Marie Beckers, Dmitry Van der Zande | Synergistic use of Sentinel-2 and Sentinel-3 data in the North Sea using DINEOF: multiscale analysis and cloud shadow detection | University of Liège | Belgium |
| 17:20 – 17:30 | Chiara Lapucci, Massimo Perna, Fabio Maselli, Valentina Vannucchi, Alberto Ortolani, Carlo Brandini | OLCI and MODIS data as a proxy for Ostreopsis ovata harmful bloom favorable conditions occurrence in Ligurian and North Tyrrhenian sea | CNR | Italy |
| 17:30 – 17:40 | Francisco Campuzano, Manuela Juliano, Ramiro Neves | Coupling watersheds, estuaries and regional seas through numerical modelling for western Iberia: regional sea surface salinity patterns. | CoLAB +ATLANTIC | Portugal |
| 17:40 | End of the Day | | | |

Friday, May 21st, 2021

Session 7 - Assessing the impact of land-based pressures on the coastal environment, river-estuary-coastal ocean coupling.

| Chairs: Diego Macias, Marilaure Grégoire | | | | |
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| 13:30 – 13:40 | Breitburg Denise, Grégoire Marilaure, Oschlies Andreas, Isensee Kirsten and the GO2NE IOC network | GO2NE: the IOC Global Oxygen Network | Smithsonian | United States |
| 13:40 – 13:50 | Pam O., Daewel U., Friedland R., Garcia-Gorriz E., Macias Moy D., Maljutenko I., Miladinove-Marinova S., Muller-Karulis B., Neumann T., Piroddi C., Stips A. | Ensemble modelling of the Baltic Sea ecosystem to assess scenarios for management | European Commission, Joint Research Centre | Belgium |
| 13:50 – 14:00 | De Dominicis M., Wolf J., Jevrejeva S., Zheng P., Hu Z., Li M. | Future coastal flooding scenarios and ecosystem-based coastal defence solutions in the world's largest urban area | National Oceanography Centre | |
| 14:00 – 14:10 | Jana Friedrich, Adrian Stanica, DANUBIUS-PP Consortium | DANUBIUS-RI: An ESFRI research infrastructure for healthy River-Sea Systems | Helmholtz-Zentrum Geesthacht | Germany |
| 14:10 – 14:20 | Christoph Stegert, Onur Kerimoglu, Hermann Joseph Lenhart, Wera Leujak, Annika Grage, René Friedland | Implementation of the Marine Strategy Framework Directive for the North Sea: defining threshold levels for the OSPAR common indicators for eutrophication based on a biogeochemical model framework | Helmholtz-Zentrum Geesthacht | Germany |
| 14:20 – 14:30 | Goulven Laruelle, Audrey Marescaux, Vincent Thieu, Josette Garnier | Coupled modeling approach for carbon and nutrients cycling along the river/estuarine transition: case study of the Seine | Université Libre de Bruxelles | Germany |
| 14:30 – 14:40 | Claudio Cardoso, Alexandra Rosa, Rui Vieira, Ana Oliveira, Jesus Reis, Ricardo Faria, Cátia Azevedo, José Alves, Ramiro Neves, Rui Caldeira | Air-sea-land modelling framework to assess the impacts of river runoff in the transport and retention of marine litter around Madeira island | ARDITI – Agência Regional para o Desenvolvimento da Investigação Tecnologia e Inovação | |
| 14:40 – 14:50 | Johannes Pein, Ute Daewel, Emil Stanev, Corinna Schrum | Response of Elbe estuary ecosystem to changed riverine nitrogen loads | Helmholtz-Zentrum Geesthacht | Germany |
| 14:50 – 15:05 | Break | | | |
| 15:05 – 15:15 | Lisa Lucas, Jian Shen, Eric Deleersnijder | Timescale methods for assessing biophysical interactions in aquatic ecosystems: an attempt at bringing order to the chaos | United States Geological Survey | United States |
| 15:15 – 15:25 | Anne Vallette, Fatimatou Coulibaly, Stephen Emsley | Marine Litter tracking and forecast of stranding in the English Channel, the North Sea, and the North Atlantic Shelf of the European Union and United Kingdom | ARGANS | France |
| 15:25 – 15:35 | Xavier Desmit, Vincent Thieu, Francisco Campuzano, Valérie Dulière, Luis Lassaletta, Alain Ménesguen, Marie Silvestre, Josette Garnier, Ligia Pinto, João Sobrinho, Ramiro Neves, Gilles Billen, Geneviève Lacroix | Social, economic and cultural options to recover from eutrophication | DO Natural Environment, Royal Belgian Institute of Natural Sciences | Belgium |
| 15:35 – 15:45 | P.K. Sarath, Damien Cardinal, Jean Riotte, Arnaud Dapoigny, Laurent Ruiz, Benjamin Baud, V.V.S.S. Sarma, B.S.K. Kumar, Veronique Vaury, Ramananda Chakrabarti | Seasonal and land use variability of silicon along the land to ocean continuum in groundwater and estuary in India | LOCEAN IPSL – Sorbonne Université | France |
| 15:45 – 15:55 | Jens Terhaar, Ronny Lauerwald, Pierre Regnier, Nicolas Gruber, Laurent Bopp | Delivery of terrigenous nutrients from rivers and coastal erosion sustain up to one third of Arctic Ocean Net Primary Production | ULB | Belgium |
| 15:55 – 16:05 | Joko Sampurno, Valentin Vallaey, Randy Ardianto, Emmanuel Hanert | Modelling the hydrodynamics of the Kapuas river delta and assessing the risk of flooding in the Pontianak City | UCLouvain | Belgium |
| 16:05 – 16:25 | Panel Discussion: Q&A, selected topics discussion | | | |
| 16:25 - 16:30 | Marilaure Grégoire | Closure | | |
| 16:25 | End of the Colloquium | | | |

Posters

Session 1 – Assessing the impact of sedimentary changes on the coastal ocean physics, biodiversity and biogeochemistry.

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| 1 | Sañé E., Ingrassia M., Martorelli E., Chiocci F.L. | Amino acids in surface sediments of the Zannone Island shelf (Western Mediterranean Sea): possible bioindicators of submarine hydrothermal activity Chalmers | University of Technology | Sweden |
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Session 2 – Science base for marine spatial planning.

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|---|---|--|---------------------------|---------|
| 1 | Insaf Draoui, Jonathan Lambrechts, Vincent Legat, Sandra Soares-Fraza, Ton Hoitink, Eric Deleersnijder | Discontinuous Galerkin Method for 1D shallow water model | UCL | Belgium |
| 2 | CAPET A., DABROWSKI T., DELBARE D., FERNANDEZ V., RODRIGUEZ-GALVEZ L., RUBIO A., TWIGT D., WANKE S., EL SERAFY G. | FORCOAST: Earth Observation services for Wild Fisheries, Oystergrounds Restoration and Bivalve Mariculture along European Coasts MAST, University of Liège Belgium | MAST, University of Liège | Belgium |

Session 3 – Assessing the impact of marine structures on the coastal ocean physics, biodiversity and biogeochemistry.

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| 1 | Cristin Mayes | Coastal ocean management: the development and application of ecosystem-based delay-difference models for bluefish, striped bass, and menhaden | Rosenstiel School for Marine and Atmospheric Science | United States |
| 2 | Emil De Borger, Evgeny Ivanov, Ulrike Braeckman, Arthur Capet, Marilaure Grégoire, Karline Soetaert | Exploring the biogeochemical footprint of offshore windfarms | Ghent University | Belgium |
| 3 | Johan van der Molen, Thodoris Karpouzoglou, Brigitte Vlaswinkel | Using a water-column model to assess the potential effects of large scale floating platforms for solar energy generation on hydrodynamics and primary production in a coastal sea | NIOZ | The Netherlands |
| 4 | Evgeny Ivanov, Arthur Capet, Ninon Mavraki, Jan Vanaverbeke, Steven Degraer, Alexander Barth, Eric Delhez, Karline Soetaert, Marilaure Grégoire | Impact assessment of biofouling communities of Belgian offshore wind farms on the sediment bed using a coupled model | MAST, University of Liège | Belgium |
| 5 | Alexandra Chava, Vadim Mokievsky, Philipp Sapozhnikov, Vyacheslav Kremenetsky | At the interface of sciences: ADCP as a potential platform for monitoring deep-water fouling of hard substrates | P.P. Shirshov Institute of Oceanology RAS | Russia |
| 6 | RHOMAD H.1, KHALIL K.1, NEVES R.2, SOBRINHO J.2, MIGUEL DIAS J.3, ELKALAY K.1 | Hydrodynamic and biogeochemical functioning of the Agadir Bay (Moroccan Atlantic coast): a numerical modeling approach | Cadi Ayyad University | Morocco |

Session 4 – Indicators definition for ocean health assessment in connection with SDG14 and GES assessment.

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|---|---|--|---|---------|
| 1 | Gianluca Franceschini, Marina Pulcini, Sasa Raicevich, Luisa Nicoletti, Marina Penna, Benedetta Trabucco, Paola La Valle, Daniela Paganelli, Raffaele Proietti, Laura Sinapi, Filippo D'Ascola, Rossella Di Mento | Towards the quantitative assessment of trawling impact on the seabed and benthic ecosystem in Italy within the Marine Strategy Framework Directive | ISPRA | Italy |
| 2 | Michele Bendoni, Carlo Brandini, Maria Fattorini, Chiara Lapucci, Carlo Pretti | Hydrodynamic connectivity between port and Marine Protected Area in the Tuscany Archipelago (Italy) | CNR-IBE – LaMMA Consortium | Italy |
| 3 | Steven Pint, Gert Everaert, Thanos Gkritzalis, Michiel Vandegehuchte and Theetaert H. | Air-sea carbon flux at the Belgian Continental Shelf | Flanders Marine Institute | Belgium |
| 4 | Chulin Jiang, Mariana Dotcheva, Isabel De Schrijver, Hom Dhakal, Michiel Vandegehuchte, Gert Everaert | Assessment of the microplastic formation and toxicity of biobased composites | Flanders Marine Institute | Belgium |
| 5 | Stephie Seghers, Charles Lefranc, Gert Van Hoey, Jan Wittoeck | The sensitivity of soft-sediment habitat types to dredging activities | Research Institute for Agriculture, Fisheries and Food, Aquatic Environment and Quality | Belgium |
| 6 | Carsten Lemmen, Wirtz Kai W | Vertical positioning as a key functional trait of macrobenthic communities Helmholtz-Zentrum Geesthacht Germany | | |

Session 5 – Multiple stressors, multi-use, cumulative effect assessment, including climate change

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| 1 | Helena Voet, Carl Van Colen, Jan Vanaverbeke | Investigating the combined effects of climate change on offshore wind farm fouling fauna: disrupted ecophysiology of Blue mussel (<i>Mytilus edulis</i>). | Royal Belgian Institute of Natural Sciences | Belgium |
| 2 | Jonathan Richir, Adrien Luyckx, Willy Champenois, Lei Chou, Amélie Corato, Jean-Pierre Descy, Sylvie Gobert, Michèle Leduc, Stanley Lutts, Erhard Pfündel, Steffen Walz, Alberto Borges | Experimental assessment of light decrease on the biology of <i>Posidonia oceanica</i> | University of Liège | Belgium |
| 3 | Matteo Zucchetto, Rossella Boscolo Brusà, Alessandra Feola, Andrea Bonometto, Emanuele Ponis, Sara Dastoli, Laura Sinapi, Raffaele Proietti, Debora Bellafiore, Maria Letizia Vitelletti, Davide Bonaldo, Luisa Nicoletti | Effects of climate changes on the distribution of reed beds in coastal lagoons: the case of the Po Delta (Adriatic Sea) within the Change We Care Project. | ISPRA | Italy |
| 4 | Nikolai Maximenko, Gregory Ruiz, Linsey Haram, Luca Centurioni, Andrey Shcherbina, Mary Crowley, James Carlton, Cathryn Murray, Jan Hafner | Physical and biological processes controlling floating ecosystem and changes due to introduction of artificial marine debris IPRC/SOEST | University of Hawaii | United States |
| 5 | Coline Poppeschi, Maximilian Unterberger, Guillaume Charria, Peggy Rimmelin-Maury, Eric Goberville, Nicolas Barrier, Emilie Grossteffan, Michel Repecaud, Loïc Quemener, Sébastien Theetten, Sébastien Petton, Jean-François Le Roux, Paul Tréguer | Hydrological extreme event occurrences and impacts linked with climate variations in coastal waters of western Europe | Ifremer, Univ. Brest, CNRS, IRD, LOPS, IUEM | France |

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| 6 | Raick X., Di Iorio L., Gervaise C., Lossent J., Lecchini D., Parmentier E. | Revealing the acoustic range of the biophony of a coastal reef environment: distances of detection, distances of propagation and human impact | University of Liège | Belgium |
| 7 | De Falco C., Pasquero C., Bracco A. | Climatic and Oceanographic Controls on Coral Bleaching Conditions in the Maldivian Region | University of Milan-Bicocca | Italy |
| Session 7 – Assessing the impact of land-based pressures on the coastal environment, river-estuary-coastal ocean coupling. | | | | |
| 1 | Marilaure Grégoire ¹ , Aida-Alvera-Azcarate ² , Luminita Buga ³ , Arthur Capet ¹ , Sorin Constantin ⁴ , Fabrizio D'ortenzio ⁵ , David Doxaran ⁵ , Yannis Faugeras ⁶ , Cristina Gonzalez ⁷ , Veronica Gonzalez ⁷ , Jean-Paul Kasprzyk ⁸ , Mariana Golumbeanu ³ , Evgeny Ivanov ¹ , Evan Mason ⁹ , Razvan Mateescu ³ , Catherine Meulders ¹ , Estrella Olmedo ⁷ , Marie-Isabelle Pujol ⁶ , George Sarbu ³ , Antonio Turiel ⁷ , Luc Vandenbulcke ¹⁰ , Marie-Hélène Rio ¹¹ . | Earth Observation products for Science and Innovation in the Black Sea | Liège University | Belgium |
| 2 | Elina Miettunen, Laura Tuomi, Kai Myrberg | Evaluating water exchange in a coastal archipelago in the northern Baltic Sea | Finnish Environment Institute, Helsinki, Finland | Finland |
| 3 | Jessica Turner, Carl Friedrichs, Pierre St-Laurent, Marjorie Friedrichs. | Effects of shoreline sediment erosion on estuarine water clarity: results from a Chesapeake Bay modeling study | Virginia Institute of Marine Science | United States |
| 4 | Polina Lepikhina, Daria Portnova, Vadim Mokievsky, Alexey Golikov | Influence of abiotic factors on the distribution of the nematode community in OB bay (Kara Sea) | Kazan Federal University | Russia |
| 5 | Georgia Filippi, Manos Dassenakis, Vasiliki Paraskevopoulou | Sediment Quality Assessment in an industrialized Greek coastal marine area (West Saronikos Gulf) | Laboratory of Environmental Chemistry, National and Kapodistrian University of Athens | Greece |
| 6 | Sarah Robinet, Alice Ofélia Matossian, Arthur Capet, Lei Chou, Audrey Plante, Marilaure Gregoire, Nathalie Fagel | Reconstruction of hypoxic conditions of the Black Sea northwestern shelf over the Holocene based on two sedimentary cores | Liège University | Belgium |
| 7 | Whitney M. and Vlahos P. | Managing Nitrogen Loads to Reduce Hypoxia in a Warming Urban Estuary | University of Connecticut | USA |
| 8 | Dai M., Chai F., Chen M., Chen N., Gan J., Guan D., Leung K.M.Y., Li Y., Lim P.-E., Lin X., Liu X., Luo Y., Sangmanee C., Wan Talaat W.I.A., Wang D., Wang G., Wang S., Wang Y., Williams G.A., Xue X. | Coastal Zones Under Intensifying Human Activities and Changing Climate: A Regional Programme Integrating Science, Management and Society to Support Ocean Sustainability (Coastal-SOS) | State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University | China |