# 9th FerryBox Workshop
# 24-26 April 2019
# Genoa Aquarium

# Agenda & Logistics

**Thanks to our sponsors!!!**

# Day 1: Wednesday 24 April 2019

**14:00-14:45 Opening remarks and updates from EuroGOOS, EEA, JERICO-RI, and EMODnet Physics**

*EEA and EuroGOOS update*
G. Nolan / European Global Ocean Observing System (EuroGOOS)

*JERICO-NEXT/JERICO-S3 update*
L. Delauney / French Research Institute for Exploitation of the Sea (IFREMER)

*Short update on EMODnet Physics and Ingestion*
A. Novellino / ETT/EMODnet Physics

**14:45-15:45 Session 1: Status of FerryBoxes in different regions** (Chairs: tbd)

*Common use of new FerryBox-line data in the North Sea as a contribution to the next MSFD reporting on eutrophication – Experiences from JMP EUNOSAT and the NorSOOP project*
K. Borst, P. Jaccard, and K. Sørensen / Rijkswaterstaat (RWS)

*Experiences with a FerryBox operating in the Wadden Sea*
D. Daehne and A. Ritzmann / Coastal Research Station – NLWKN

*Experience from the Norwegian FerryBox network in national monitoring*
K Sørensen, M. Norli, A. King, P. Jaccard, S. Marty, A. Ledang, D. Hjermann, T. Kristiansen, and W. Eikrem / Norwegian Institute for Water Research (NIVA)

*FerryBox for continuous observations: launching a new route in the Antarctic*
K. Tuholukova, V. Komorin, and E. Dykyi / National Antarctic Scientific Centre of Ukraine (NASC)

**15:45-16:15 Coffee break**

**16:15-17:00 Session 2: FerryBox techniques and sensors** (Chairs: tbd)

*Advances in chemical sensor developments*
S. Aßmann / Kongsberg Maritime Contros GmbH

*Application and experiences with automated carbon sensors in FerryBox systems*
M. Gehrung / Helmholtz-Zentrum Geesthacht (HZG)

*Field test of a reliable and Easy to use microLFA based nutrient sensor package for Ferrybox On-line monitoring applications*
L. Sanfilippo, P. Jaccard, A. King, S. Marty, T. BlaksethP. Moscetta, E. Savino, and K. Sorensen / SYSTEA SpA

**19:00 Icebreaker – light dinner (provided courtesy of sponsors listed on page 1!)**

# Day 2: Thursday 25 April 2019

**9:00-10:45 Session 2: FerryBox techniques and sensors** (cont'd) (Chairs: tbd)

*NuLAB wet chemistry nutrient analyser*
V. Dauben, A. Davidov, and V. Kelly / MacArtney Germany GmbH

*Determination of nutrients in seawater via NuLab Nutrient Analyser*
H. Thomas and D. Blandfort / Helmholtz-Zentrum Geesthacht (HZG)

*Oil spill detection in the Baltic Sea using FerryBox system equipped with UV-fluorometer*

S. Pärt, T. Kõuts, and K. Vahter / Tallinn University of Technology (TTU)

*4H-FerryBox – Past, present, and future*
M. Grunwald / -4H-JENA engineering GmbH

*Applying novel, cross-disciplinary technology to improve measurements at sea on ships of opportunity*
S. Kirby / Chelsea Technologies Group

*Advanced Phytoplankton Monitoring in Ocean Research*
T. Boehme / bbe moldaenke GmbH

Measuring Current from commercial vessels with Nortek Speed Log
O. Myklebust and M. Brien / Nortek Group

**10:45-11:15 Coffee break**

**11:15-13:15 Session 3: Modelling and data handling** (Chairs: tbd)
*EMODnet Physics*
A. Novellino, P. Gorringe / ETT/EMODnet Physics

*European FerryBox Database: Moving on*
G. Breitbach and W. Petersen / Helmholtz-Zentrum Geesthacht (HZG)

*Data management and quality control procedures within ICOS Ocean Thematic Centre*
B. Pfeil / ICOS, University of Bergen (UiB)

*FerryBox data for ecosystem modelling*
A. Ritzmann and D. Daehne / Coastal Research Station - NLWKN

*A new approach to automatic quality control and API access to FerryBox data; application usage by assimilating data into ocean models*
T. Kristiansen / Norwegian Institute for Water Research (NIVA)

*Identification of spatial hydro-biological structures by spectral clustering. Towards implementation of machine learning for FerryBox data processing*
A. Lefebvre, K. Grassi, and E. Poisson-Caillaut / French Research Institute for Exploitation of the Sea (IFREMER)

*A multiplatform intercomparison of FerryBox Data*
C. Frangoulis, A. Kalampokis, M. Sotiropoulou, M. Ntoumas, M. Pettas, S. Christodoulaki, G. Korres, L. Perivoliotis, and G. Petihakis / Hellenic Centre for Marine Research (HCMR)

*Use of FerryBox data to complement environmental monitoring and fisheries surveys on the RV Cefas Endeavour*
K. Collingridge, E. Capuzzo, V. Creach, N. Greenwood, S. Wright, J. van der Kooij, and M. Devlin / Centre for Environment, Fisheries and Aquaculture Science (Cefas)

**13:15-14:30 Lunch (provided)**

**14:30- 16:00 Session 4: Carbon cycle observations** (Chairs: tbd)
  *Invited talk:* *Measuring carbon dioxide in the ocean - an overview over the scientific network and current practices*
  M. Becker / ICOS, University of Bergen (UiB)

  *Invited talk:* *Surface seawater biogeochemical measurements from long transects of the Atlantic by ships of opportunity*
  S. Hartman, V. Macovei, U. Schuster, and R. Sanders / National Oceanography Centre (NOC)

  *The ICOS impact assessment report – the first impact study for a distributed environmental research infrastructure*
  W. Kutsch, J. Van Belle, E. Riikonen, G. van Veen, and J. Rintala / ICOS ERIC head office

  *Sailing meets science - Innovative Ocean Monitoring*
  S. Raimund, S. Marx, S. Gutekunst, P. Landschützer, B. Herrmann, and T. Tanhua / SubCtech GmbH

**16:00-18:00 Exhibit and Poster session (with coffee)**
  **Exhibit booths by**:
  -4H-JENA engineering GmbH
  bbe moldaenke GmbH
  EMODnet
  EuroGOOS
  MacArtney Germany GmbH
  Nortek Group
  SubCtech GmbH
  Systea SpA

  **Posters**:
  *QuinCe: An online tool for processing and quality control of surface ocean $CO_2$ measurements*
  S. Jones and J. Henriksen / ICOS OTC/Bjerknes Climate Data Centre, University of Bergen

  *A FerryBox system equipped with a passive sampling unit for micropollutants: a case study in the Western Mediterranean*
  M. Schintu, A. Marrucci, B. Marras, A. Bettoschi, C. Sanna, and N. Montero / Università di Cagliari

  *Validation of remote sensing algorithms using the Norwegian ship of opportunity network*
  S. Marty, P. Jaccard, M. Norli, A. King, and K. Sørensen / Norwegian Institute for Water Research (NIVA)

  *Phyto-OPS: a tool for visualisation of phytoplankton data from FerryBox, HPLC and flow cytometry*
  K. Collingridge, S. Hare, and V. Creach / Centre for Environment, Fisheries and Aquaculture Science (Cefas)

**18:00 Dinner on your own**

# Day 3: Friday 26 April 2019

**9:00-10:15 Session 4: Carbon cycle observations** (cont'd) (Chairs: tbd)

*Seasonal and spatial variability of $pCO_2$ and total alkalinity in the North Sea – Observations from continuous FerryBox measurements*
W. Petersen, Y. Voynova, and M. Gehrung / Helmholtz-Zentrum Geesthacht (HZG)

*DOM and nutrients from rivers to coast: observations and experimental results*
A. King, H. Frigstad, M. Norli, R., Ø. Kaste, and K. Sørensen / Norwegian Institute for Water Research (NIVA)

*$pCO_2$ measurements in the Baltic Sea*
A. Wranne, B. Karlson, and M. Wenzer / Swedish Meteorological and Hydrographical Institute (SMHI)

*Underway atmospheric monitoring of Southern Ocean carbon uptake*
C. Aiken / Proyecto FOCA, PUC

**10:15-10:45 Coffee break**

**10:45-12:00 Closing session**
Future perspectives on FerryBoxes and Ships of Opportunity with regards to EuroGOOS, JERICO-RI, EMODnet, ICOS; FB Task Team open discussion, 10th FerryBox workshop plans

**12:00 Lunch (provided) and free visit to aquarium**

# Logistics for 9<sup>th</sup> FerryBox workshop

**Emergency contact**: Andrew King +47 982 27 725; Wilhelm Petersen +49 4152 872358; Antonio Novellino +39 010 6519116 (local organiser)

**Dates & times:** 14:00 Wednesday 24 April to 12:00 Friday 26 April 2019

## Location
Acquario du Genova
Area Porto Antico, Ponte Spinola
16128 Genova
https://www.acquariodigenova.it/en/

## Transportation
Air: Fly to Genoa Cristoforo Colombo Airport (GOA)

From airport to meeting venue you can take a taxi or take public transportation:
https://goo.gl/maps/FNMNKtQp1FA2

Hotels - some suggestions that are ~100 Euro per night:
http://www.bblefinestresulportoanticogenova.it/?lang=en
https://www.bestwestern.com/en_US/book/hotels-in-genova/best-western-hotel-porto-antico/propertyCode.98234.html
http://la-superba.com/
https://www.bbgenovaportoantico.it/

Reviews for the above hotels can be read on Tripadvisor.com, as well as many others in the area.