

PERSONAL INFORMATION

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WORK EXPERIENCE

CURRENT POSITION

December 2022
Present

Head of SOCIB Research Area

Balearic Islands Coastal Observing and forecasting System (SOCIB)

- Coordination of the multidisciplinary research activities of the scientific program.
- Management of the staff involved in scientific activities.
- Establishment and management of scientific priorities.
- Representation of the Scientific Area in national and international meetings.
- Optimization of available resources, both financial and human, related to the scientific activity.
- Detection in time of any issues and implementation of mitigation strategies.
- Coordination of scientific activities with other members of the consortia.
- Coordination of the participation in several scientific steering committees.
- Support the knowledge transfer activities.
- Alignment of the scientific program of SOCIB with regional, national and international initiatives and strategies.
- Project manager of SOCIB's Digital Twins initiative

February 2016
December 2022

Head of Coastal High-Frequency radar facility, SOCIB

Balearic Islands Coastal Observing and forecasting System (SOCIB)

- Calibration and operation of the HF radar system from the Ibiza Channel (daily remote check, data flow and backup; near-real time and delay-mode validation; development and implementation of added-value HFR data products).
- Preparation and participation in validation experiments in the Ibiza Channel.
- Identification of surface circulation patterns and its variability in the Ibiza Channel.
- Coordination and writing of research grant proposals.
- Work jointly with other scientists in the context of the HF radar networks (at European and Global level) and in the scope of international funded projects.
- Coordination of public-private partnership projects.
- Representation of SOCIB-HF radar Facility at local, national and international scene.
- Representation of SOCIB-HF radar Facility at outreach events organized by other members of the Outreach and Education Facility.

July 2015
February 2016

Post-doctoral researcher position (MEGAN project)

Applied Physics Department, Physical Oceanography: Dynamics (ref. RNM-2015) research group, University of Cadiz, Cadiz, Spain.

- Improvement and maintenance of the met-ocean forecast.
- Data acquisition, processing and analysis.
- Design and technical support for research oceanographic cruises.
- Creation of bash-scripts to automate routine tasks within the scope of the operational oceanography system.
- Assisting in the development and preparation of continuing funding opportunities.

October 2014
June 2015

Early-Career Researcher position (ARCOPOL platform project)

Applied Physics Department, Physical Oceanography: Dynamics (ref. RNM-2015) research group, University of Cadiz, Cadiz, Spain.

- Implementation of data storage optimization routines.
- Maintenance of the web-based GIS Operational Oceanography System.

- Upgrading of OceanUCA-Maps by the addition of WMS, GIS and new met-ocean layers.
- Inter-comparison of oil spills drift models.
- Participation and presentation of results in workshops.
- Communication and dissemination project activities.
- Edition of technical reports.
- Participation on modelling exercises involving main end-users.

March 2014
October 2014

Researcher position (MAGALLANES project)

Applied Physics Department, Physical Oceanography: Dynamics (ref. RNM-2015) research group, University of Cadiz, Cadiz, Spain.

- Hydrodynamic characterization of the North-Atlantic Coast of the Strait of Gibraltar.
- Assessment of tidal energy resource and identification of the best suitable locations for marine renewable energy.

April 2013
February 2014

Researcher position (ARCOPOL plus project)

Applied Physics Department, Physical Oceanography: Dynamics (ref. RNM-2015) research group, University of Cadiz, Cadiz, Spain.

- Improvement and optimization of the automation processes for the model forecasts.
- Met-ocean modelling and performance assessment.
- Oil spill modelling simulations.
- Supervision of the development of user-friendly web decision-support tool.

January 2012
January 2013

Researcher position (TRADE project)

Applied Physics Department, Physical Oceanography: Dynamics (ref. RNM-2015) research group, University of Cadiz, Cadiz, Spain.

- Quality assessment of CODAR SeaSonde HF radar current measurements from the Strait of Gibraltar against ADCPs observations, Lagrangian drifters' trajectories and sea surface temperature as well as ocean colour satellite images.
- Data acquisition, processing and analysis.
- Study the surface current patterns measured by the HF radar, by applying Empirical Orthogonal Functions.
- Ocean model-HFR inter-comparison.
- Study of the subinertial variability of HF radar surface currents related to changes in atmospheric pressure over Ligurian sea.

May 2009
December 2011

Researcher position (MONGACLIMAR project)

Applied Physics Department, Physical Oceanography: Dynamics (ref. RNM-2015) research group, University of Cadiz, Cadiz, Spain.

- Improvement of the local ocean model's results including the effect of wind forcing.
- Meteo-ocean model performance assessment (wind-forced ocean model and the ocean-alone model with tidal forcing).
- Study of the wind induced circulation patterns.
- Participation in fieldwork design for oceanographic surveys.
- Data acquisition and processing.
- Edition of reports.

May 2006
January 2007

Researcher position (ESEOO project)

Applied Physics Department, Physical Oceanography: Dynamics (ref. RNM-2015) research group, University of Cadiz, Cadiz, Spain.

- Implementation of the mesoscale atmospheric model MM5 in the Andalusian region.
- Model performance evaluation against meteorological measurements from automatic weather stations over land and meteo-ocean buoys.
- Development of GrADS scripts for model outputs display through web interfaces.

EDUCATION

2015

European Ph.D. in Marine Sciences

University of Cadiz, Applied Physics Department, Physical Oceanography: Dynamics (ref. RNM-2015) research group, Cadiz, Spain.

PhD Thesis Title: "A high-resolution modelling study of the ocean response to wind forcing within the Strait

of Gibraltar". <https://doi.org/10.13140/RG.2.2.28881.07525> and URI: <http://hdl.handle.net/10498/17501>

Advisors: PhD. Alfredo Izquierdo González and PhD. Miguel Bruno Mejías

2005 Advances Studies Diploma in Marine Sciences

Cadiz University, Cadiz, Spain

2003 B. Sc. Marine Sciences

Cadiz University, Cadiz, Spain

RESEARCH

Publications

1. Chevillard, C., Juza, M., Díaz-Barroso, L., **Reyes, E.**, Escudier, R., and Tintoré, J. (2024). "Capability of the Mediterranean Argo network to monitor sub-regional climate change indicators". *Frontiers in Marine Science - Ocean Observation*, 11, provisionally accepted. <https://doi.org/10.3389/fmars.2024.1416486>
2. Lorente, P., Rubio, A., **Reyes, E.**, Solabarrieta, L., Piedracoba, S., Tintoré, J., & Mader, J. (2023). "High-frequency radar-derived coastal upwelling index". *State of the Planet*, 1-osr7, 8. <https://doi.org/10.5194/sp-1-osr7-8-2023>
3. Mourre, B., **Reyes, E.**, Lorente, P., Santana, A., Hernández-Lasheras, J., Hernández-Carrasco, I., García-Jove, M., & Zarokanellos, N. D. (2023). "Intense wind-driven coastal upwelling in the Balearic Islands in response to Storm Blas (November 2021)". *State of the Planet*, 1-osr7, 15. <https://doi.org/10.5194/sp-1-osr7-15-2023>
4. Álvarez-Fanjul, E., Pérez Gómez, M., Alonso-Muñoyerro, M. de A., Jiménez, P. L., Sotillo, M. G., Lin-Ye, J., Lecoq, A., Serna, M. R. G. de la, Rubio, S. P., Clementi, E., Coppini, G., García-León, M., Muñoz, D. S., Rico, M. Y. L., Mestres, M., Molina, R., Tintoré, J., Mourre, B., Masina, S., Mosso, C., **Reyes, E.**, and Santana, A. (2022). "Western Mediterranean record-breaking storm Gloria: An integrated assessment based on models and observations". In: *Ocean State Report*, issue 6, J. Oper. Oceanogr., 15(sup1), 1–220. <https://doi.org/10.1080/1755876X.2022.2095169>
5. **Reyes, E.**, Aguiar, E., Bondoni, M., Berta, M., Brandini, C., Cáceres-Euse, A., Capodici, F., Cardin, V., Cianelli, D., Ciralo, G., Corgnati, L., Dadić, V., Doronzo, B., Drago, A., Dumas, D., Falco, P., Fattorini, M., Fernandes, M. J., Gauci, A., Gómez, R., Griffo, A., Guérin, C.-A., Hernández-Carrasco, I., Hernández-Lasheras, J., Ličer, M., Lorente, P., Magaldi, M. G., Mantovani, C., Mihanović, H., Molcard, A., Mourre, B., Révelard, A., Reyes-Suárez, C., Saviano, S., Sciascia, R., Taddei, S., Tintoré, J., Toledo, Y., Uttieri, M., Vilibić, I., Zambianchi, E. and Orfila. (2022). "Coastal high-frequency radars in the Mediterranean - Part 2: Applications in support of science priorities and societal needs". *Ocean Sci.* 2022;18(3):797-837. <https://doi.org/10.5194/os-18-797-2022>
6. Lorente, P., Aguiar, E., Bondoni, M., Berta, M., Brandini, C., Cáceres-Euse, A., Capodici, F., Cianelli, D., Ciralo, G., Corgnati, L., Dadić, V., Doronzo, B., Drago, A., Dumas, D., Falco, P., Fattorini, M., Gauci, A., Gómez, R., Griffo, A., Guérin, C.-A., Hernández-Carrasco, I., Hernández-Lasheras, J., Ličer, M., Magaldi, M. G., Mantovani, C., Mihanović, H., Molcard, A., Mourre, B., Orfila, A., Révelard, A., **Reyes, E.**, Sánchez, J., Saviano, S., Sciascia, R., Taddei, S., Tintoré, J., Toledo, Y., Ursella, L., Uttieri, M., Vilibić, I., Zambianchi, E. and Cardin, V. (2022). "Coastal high-frequency radars in the Mediterranean - Part 1: Status of operations and a framework for future development". *Ocean Sci.* 2022;18(3):761-795. <https://doi.org/10.5194/os-18-761-2022>
7. Rubio, A., Solabarrieta, L., Corgnati, L., Mantovani, C., **Reyes, E.**, Rotllán-García, P., Novellino, A., Gorringer, P., Griffo, A., and Mader, J. (2021). "Building a reliable and standardized long-term data set of surface coastal ocean currents from the European HF Radars". In: Fernandez Vicente, Lara-Lopez Ana, Eparkhina Dina, Cocquempot Lucie, Lochet Corine, Lips Inga (eds.). *Advances in operational oceanography : expanding Europe's ocean observing and forecasting capacity. Proceedings of the 9th EuroGOOS International Conference. 3 – 5 May 2021, Online Event 2021, EuroGOOS. Brussels, Belgium. 574 pp.* <https://archimer.ifremer.fr/doc/00720/83160/>
8. Corgnati, L., Mantovani, C., Rubio, A., **Reyes, E.**, Rotllán, P., Novellino, A., Gorringer, P., Solabarrieta, L., Griffo, A., and Mader, J. (2021). "The EuroGOOS High Frequency Radar Task Team: a success story of collaboration. To be kept alive and made growing". In: Fernandez Vicente, Lara-Lopez Ana, Eparkhina Dina, Cocquempot Lucie, Lochet Corine, Lips Inga (eds.). *Advances in operational oceanography : expanding Europe's ocean observing and forecasting capacity. Proceedings of the 9th EuroGOOS International Conference. 3 – 5 May 2021, Online Event 2021, EuroGOOS. Brussels, Belgium. 574 pp.* <https://archimer.ifremer.fr/doc/00720/83160/>
9. Hernández-Lasheras, J., Mourre, B., Orfila, A., Santana, A., **Reyes, E.**, & Tintoré, J. (2021). "Evaluating High-Frequency radar data assimilation impact in coastal ocean operational modelling". *Ocean Science Discussions*, 2021, 1–29. <https://doi.org/10.5194/os-2021-34>
10. Révelard, A., **Reyes, E.**, Mourre, B., Hernández-Carrasco, I., Rubio, A., Lorente, P., Fernández, C. D. L., Mader, J., Álvarez-Fanjul, E., & Tintoré, J. (2021). "Sensitivity of Skill Score Metric to Validate Lagrangian Simulations in Coastal Areas: Recommendations for Search and Rescue Applications". In *Frontiers in Marine Science* (Vol. 8, p. 191). <https://doi.org/10.3389/fmars.2021.630388>

11. Lorente, P., Lin-Ye, J., García-León, M., **Reyes, E.**, Fernandes, M., Sotillo, M. G., Espino, M., Ruiz, M. I., Gracia, V., Perez, S., Aznar, R., Alonso-Martirena, A., & Álvarez-Fanjul, E. (2021). "On the Performance of High Frequency Radar in the Western Mediterranean During the Record-Breaking Storm Gloria". *Frontiers in Marine Science* 8, (p. 205). <https://doi.org/10.3389/fmars.2021.645762>
12. Barth, A., Troupin, C., **Reyes, E.**, Alvera-Azcarate, A. and Beckers, J.-M., Tintoré, J. (2021). "Variational interpolation of high-frequency radar surface currents using DIVAnd". *Ocean Dynamics*, Vol. 71, Issue 2. <https://doi.org/10.1007/s10236-020-01432-x>
13. Berta, M., Corgnati, L., Magaldi, M. G., Griffa, A., Mantovani, C., Rubio, A., **Reyes, E.** and Mader, J. (2020). "Small scale ocean weather during an extreme wind event in the Ligurian Sea". In: Copernicus Marine Service Ocean State Report, Issue 4, *Journal of Operational Oceanography*, 13:sup1, s149—s155; <https://doi.org/10.1080/1755876X.2020.1785097>
14. **Reyes, E.**, Hernández-Carrasco, I., Révelard, A., Moure, B., Rotllán, P., Comerma, E., Tajalli Bakhsh, T., Rubio, A., Mader, J., Ferrer, L., De Lera Fernández, C., Álvarez-Fanjul, E. and Tintoré, J. (2020). "IBISAR service for real-time data ranking in the IBI area for emergency responders and SAR operators". In: Copernicus Marine Service Ocean State Report, Issue 4, *Journal of Operational Oceanography*, 13:sup1, s92—s99; <https://doi.org/10.1080/1755876X.2020.1785097>
15. Rubio, A., Hernández-Carrasco, I., Orfila, A., González, M., **Reyes, E.**, Corgnati, L., Berta, M., Griffa, A., and Mader, J. (2020). "A Lagrangian approach to monitor local particle retention conditions in coastal areas". In: Copernicus Marine Service Ocean State Report, Issue 4, *Journal of Operational Oceanography*, 13:sup1, s54—s59; <https://doi.org/10.1080/1755876X.2020.1785097>
16. Ruiz-Parrado, I., Genua-Olmedo, A., **Reyes, E.**, Moure, B., Rotllán, P., Lorente, P., García-Sotillo, M. and Tintoré, J. (2020). "Coastal ocean variability related to the most extreme Ebro River discharge over the last 15 years". In: Copernicus Marine Service Ocean State Report, Issue 4, *Journal of Operational Oceanography*, 13:sup1, s160—s165; <http://doi.org/10.1080/1755876X.2020.1785097>
17. Mantovani, C., Corgnati, L., Horstmann, J., Rubio, A., **Reyes, E.**, Quentin, C., Cosoli, S., Asensio, J. L., Mader, J. and Griffa, A. (2020). "Best Practices on High Frequency Radar Deployment and Operation for Ocean Current Measurement" *Front. Mar. Sci.*, 7, :210, <https://doi.org/10.3389/fmars.2020.00210>.
18. Aguiar, E., Moure, B., Juza, M., **Reyes, E.**, Hernández-Lasheras, J., Cutolo, E., Mason, E., Tintoré, J. (2020). "Multi-platform model assessment in the Western Mediterranean Sea: impact of downscaling on the surface circulation and mesoscale activity". *Ocean Dynamics* 70, 273–28, <https://doi.org/10.1007/s10236-019-01317-8>
19. Tintoré, J., N. Pinardi, E. Álvarez-Fanjul, E. Aguiar, D. Álvarez-Berastegui, M. Bajo, R. Balbin, R. Bozzano, B. B. Nardelli, V. Cardin, B. Casas, M. Charcos-Llorens, J. Chiggiato, E. Clementi, G. Coppini, L. Coppola, G. Cossarini, A. Deidun, S. Deudero, F. D'Ortenzio, A. Drago, M. Drudi, G. El Serafy, R. Escudier, P. Farcy, I. Federico, J. G. Fernández, C. Ferrarin, C. Fossi, C. Frangoulis, F. Galgani, S. Gana, J. García Lafuente, M. G. Sotillo, P. Garreau, I. Gertman, L. Gómez-Pujol, A. Grandi, D. Hayes, J. Hernández-Lasheras, B. Herut, E. Heslop, K. Hilmi, M. Juza, G. Kallos, G. Korres, R. Lecci, P. Lazzari, P. Lorente, S. Liubartseva, F. Louanchi, V. Malacic, G. Mannarini, D. March, S. Marullo, E. Mauri, L. Meszaros, B. Moure, L. Mortier, C. Muñoz-Mas, A. Novellino, D. Obaton, A. Orfila, A. Pascual, S. Pensieri, B. Pérez Gómez, S. Pérez Rubio, L. Perivoliotis, G. Petihakis, L. P. de la Villéon, J. Pistoia, P.-M. Poulain, S. Pouliquen, L. Prieto, P. Raimbault, P. Reglero, **E. Reyes**, P. Rotllán, S. Ruiz, J. Ruiz, I. Ruiz, L. F. Ruiz-Orejón, B. Salihoglu, S. Salon, S. Sammartino, A. Sánchez Arcilla, A. Sánchez-Román, G. Sannino, R. Santoleri, R. Sardá, K. Schroeder, S. Simoncelli, S. Sofianos, G. Sylaios, D. Tanhua, A. Teruzzi, P. Testor, D. Tezcan, M. Torner, F. Trotta, G. Umgiesser, K. von Schuckmann, G. Verri, I. Vilibic, M. Yucel, M. Zavatarelli and G. Zodiatis (2019). "Challenges for Sustained Observing and Forecasting Systems in the Mediterranean Sea." *Frontiers in Marine Science* 6(568). <https://doi.org/10.3389/fmars.2019.00568>
20. Rubio, A., Manso-Narvarte, I., Caballero, A., Corgnati, L., Mantovani, C., **Reyes, E.**, Griffa, A. and Mader, A. (2019). The seasonal intensification of the slope Iberian Poleward Current. In: "Copernicus Marine Service Ocean State Report, Issue 3." *Journal of Operational Oceanography* 12(sup1): S1-S123. <https://doi.org/10.1080/1755876X.2019.1633075>
21. González, C. J., **E. Reyes**, Ó. Álvarez, A. Izquierdo, M. Bruno and R. Mañanes (2019). "Surface currents and transport processes in the Strait of Gibraltar: Implications for modeling and management of pollutant spills". *Ocean & Coastal Management* 179: 104869. <https://doi.org/10.1016/j.ocecoaman.2019.104869>
22. Roarty, H., T. Cook, L. Hazard, D. George, J. Harlan, S. Cosoli, L. Wyatt, E. Alvarez Fanjul, E. Terrill, M. Otero, J. Largier, S. Glenn, N. Ebuchi, B. Whitehouse, K. Bartlett, J. Mader, A. Rubio, L. Corgnati, C. Mantovani, A. Griffa, **E. Reyes**, P. Lorente, X. Flores-Vidal, K. J. Saavedra-Matta, P. Rogowski, S. Prukpitikul, S.-H. Lee, J.-W. Lai, C.-A. Guérin, J. Sanchez, B. Hansen and S. Grilli (2019). "The Global High Frequency Radar Network." *Frontiers in Marine Science* 6(164). <https://doi.org/10.3389/fmars.2019.00164>
23. Moure, B., E. Aguiar, M. Juza, J. Hernández-Lasheras, **E. Reyes**, E. Heslop, R. Escudier, E. Cutolo, S. Ruiz, E. Mason, A. Pascual and J. Tintoré (2018). Assessment of high-resolution regional ocean prediction systems using multi-platform observations: Illustrations in the Western Mediterranean Sea". *New Frontiers in Operational Oceanography. GODAE OceanView*. E. P. Chassignet, A. Pascual, J. Tintoré and J. Verron. Tallahassee, Florida: 81. <https://doi.org/10.17125/gov2018.ch24>

24. Hernández-Carrasco, I., Solabarrieta, L., Rubio, A., Esnaola, G., **Reyes, E.**, and Orfila, A. (2018). Impact of HF radar currents gap-filling methodologies on the Lagrangian assessment of coastal dynamics. *Ocean Sci. Discuss.* <https://doi.org/10.5194/os-2018-26>
25. Dastis, C., Izquierdo, A., Bruno, M., **Reyes, E.**, Sofina, E., and Plink, N. L. (2018). "Influence of the atmospheric pressure fluctuations over the Mediterranean Sea on the mesoscale water dynamics of the Strait of Gibraltar and the Alboran Sea." *Fundamentalnaya i Prikladnaya Gifrofizika* 11(1): 29-39. <https://doi.org/10.7868/S2073667318010033>
26. Chioua, J., Dastis, C., González, C. J., **Reyes, E.**, Mañanes, R., Ruiz, M. I., Álvarez, E., Yanguas, F., Romero, J., Álvarez, O. and Bruno, M. (2017). "Water exchange between Algeciras Bay and the Strait of Gibraltar: A study based on HF coastal radar". *Estuarine, Coastal and Shelf Science*. Volume 196, 5 September 2017, Pages 109-122. <https://doi.org/10.1016/j.ecss.2017.06.030>
27. Chioua, J., Bruno, M., Vázquez, A., **Reyes, M.**, Gomiz, J. J., Mañanes, R., Álvarez, O., González, C. J., López, L., Gómez-Enri, J. (2013). "Internal waves in the Strait of Gibraltar and their role in the vertical mixing processes within the Bay of Algeciras". *Estuarine, Coastal and Shelf Science*, 126, 70-86 pp. <https://doi.org/10.1016/j.ecss.2013.04.010>
28. Ramirez-Romero, E., Macias, D., Bruno, M., **Reyes, E.**, Navarro, G., and García, C.M. (2012). "Submesoscale, tidally-induced biogeochemical patterns in the Strait of Gibraltar". *Estuarine, Coastal and Shelf Science*, 101,24-32 pp. <https://doi.org/10.1016/j.ecss.2012.02.010>
29. Plomaritis, T., Benavente, J., del Rio, L., **Reyes, E.**, Dastis, C., Gomez, M., and Bruno, M. (2012). "Storm Early warning system as a last plug-in of a regional operational oceanography system: the case of the Gulf of Cadiz". *Coastal Engineering Proceedings*, 1(33), management.54. <http://dx.doi.org/10.9753/icce.v33.management.54>
30. A. Álvarez and **E. Reyes** (2010). "Volumetric estimation of thermal fields inferred from glider-like and remote sensing measurements in under-sampled coastal regions". *Journal of Geophysical Research*, 115, C11006. <https://doi.org/10.1029/2009JC005791>.

Reports, manuals,
guidelines,
best practices, case
studies

1. Alvarez-Berastegui, D., Tugores, M., Melanie, J., Hernández-Carrasco, I., Sanz-Martín, M., Reglero, P., Macías, D., Balbín, R., Lázaro, G., Antoine, L., Mavruk, S., Cuttitta, A., Russo, S., Patti, B., Torri, M., Reyes, E., Moure, B., Orfila, A., Gordo, A., & Cardin, V. (2023). *TERMS OF REFERENCE FOR THE MEDITERRANEAN TUNA HABITAT OBSERVATORY INITIATIVE*.
2. Pascual, A., Mourre, B., Balaguer, P., Barceló-Llull, B., Calafat, N., Casas, B., Combes, V., Cutolo, E., Díaz-Barroso, L., Fernández, J. G., Gómez-Navarro, L., Juza, M., Lizarán, I., Miralles, A., **Reyes, E.**, Rivera, P., Rodríguez-Tarry, D., Rosselló, P., Rubio, M., ... Zarokanellos, N. (2023). CRUISE PLAN Fine-Scale ocean currents from integrated multi-platform experiments and numerical simulations: contribution to the new SWOT satellite mission (FaSt-SWOT, PID2021-122417NB-I00) 4 MAY 2023. <https://doi.org/10.20350/digitalCSIC/15276>
3. Mantovani, C., Pearlman, J. and Simpson, P. Corgnati, K., Ntoumas, M., Zarokanellos, N., Voynova, Y., Möller, K., Bastianini, M., Bourrin, F., Breitbach, G., Brix, H., Brunetti, F., Cantoni, C., Charcos, M., Delauney, L., Fischer, P., Honkanen, M., Horstmann, J., King, A., Laakso, L., Mader, J., Martins, I., Pagonis, P., **Reyes, E.**, Rubio, A., Seppälä, J., (2023) JERICO-S3 Deliverable 5.2. Electronic Handbook for Mature Platforms: Mooring - HF Radar - FerryBox - Glider. Version 1.1. IFREMER for JERICO-S3, 195pp. (JERICO-S3-WP5-D5.2-310123-V1.1). DOI: <https://doi.org/10.25607/OBP-1945>
4. Mantovani, C., Charcos, M., Corgnati, L., Fernández, J.G., Frontera, B., Notario, X., Pearlman, J., **Reyes, E.**, Solabarrieta, L., Zarokanellos, N. (2023) JERICO-S3 D.5.5 - WP5 - Report on the functional homogenization tools that will support the implementation of best practices within the JERICO-RI. Brest, France, IFREMER for JERICO S3, 28pp. (JERICO-S3-WP5-D5.5-30032023-V1.0). DOI: <https://doi.org/10.25607/OBP-1953>
5. Solabarrieta, L., Corgnati, L., **Reyes, E.**, Lorente, P., Mantovani, C., Rubio, A., Mader, K., Petihakis, G (2023) HF-Radar tools. D3.14 EuroSea Deliverable. 22 pp., https://doi.org/10.3289/eurosea_d3.14.
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2. López, G., **Reyes, E.**, Frontera, B., Notario, X., Fernández, J. G., Corgnati, L., Mantovani, C., Solabarrieta, L., Rubio, A., Mader, J., Lorente, P., Ruiz, M., Updyke, T., Roarty, H., Smith, M., & Tintoré, J. Analysing High Frequency Radar Outages in the Ibiza Channel via HOORT: A Case Study. MARTECH Conference, June 2024, Palma, Spain.
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12. **Reyes, E.** Stakeholder perspectives - Coastal tourism (panelist). EMODnet Open Conference 2023, November 2023, Brussels, Belgium.
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22. **Reyes E.**, "IBISAR service: Supporting operations and emergency response at sea". European Maritime Day, 19-20 May, 2022, Ravenna (Italy).
23. Lorente, P., **Reyes, E.**, et al., "Coastal HF radars in the Mediterranean: status of operations and multidisciplinary science-based applications". 10th MONGOOS workshop. 26-28 Oct, 2021, virtual.
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25. **Reyes E.** "IBISAR: helping SAR operators and emergency responders to select the most accurate ocean forecast". SICOMAR-Plus HF Radar Summer School, 26-28 May, 2021, virtual.
26. **Reyes, E.**, Lorente, P. et al., 2021. "Mediterranean High-Frequency radar network: regional coordinated efforts meeting end users and science-driven requirements". Ninth International Conference of EuroGOOS, 3-5 May, virtual.
27. Corgnati, L., Mantovani, C., Rubio, A., **Reyes, E.**, Rotllán, P., Novellino, A., Gorringer, P., Solabarrieta, L., Griffo, A., Mader, J., 2021. "The EuroGOOS High Frequency Radar Task Team: a success story of collaboration. To be kept alive and made growing". Ninth International Conference of EuroGOOS, 3-5 May, virtual.
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34. **Emma Reyes**. "IBISAR: one year of supporting emergency response at sea". Copernicus Marine Service – General Assembly, 26-28 January, 2021, virtual.
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51. **Emma Reyes**, Baptiste Mourre, Paz Rotllán, Ismael Hernández, Eric Comerma, Tayebah Tajalli Bakhsh, Anna Rubio, Julien Mader, Luis Ferrer, Christian De Lera Fernandez, Enrique Álvarez-Fanjul, Alejandro Orfila and Joaquín Tintoré. "IBISAR: Skill Assessment service for real-time ranking of met-ocean data products in the IBI area for emergency and SAR operators". Bollettino di Geofisica, Vol.59 - Supplement 1 (2018): 299-301. IMDIS Conference, Barcelona (Spain), 5-7- November 2018.
52. Anna Rubio, Julien Mader, Lorenzo Corgnati, Carlo Mantovani, Annalisa Griffa, Antonio Novellino, **Emma Reyes** and Patrick Gorringe. "Present and future of the European HF radar network: outcomes of the INCREASE project". The 4th Ocean Radar Conference for Asia-Pacific (ORCA), Naha, Okinawa (Japan), 2-4, June 2018.

53. Carlos J. González, **Emma Reyes**, Óscar Álvarez, Alfredo Izquierdo, Miguel Bruno and Rafael Mañanes, 2018. "Surface currents in the Strait of Gibraltar from field and 3-D model data: impacts on oil-spill modeling and forecasting". VI International Symposium on Marine Sciences. Vigo (Spain), 20-22, June 2018.
54. Eva Aguiar, Baptiste Moure, Mélanie Juza, Jaime Hernández, **Emma Reyes**, Eugenio Cutolo, Evan Mason, Joaquín Tintoré, 2018. "Multi-platform model assessment in the Western Mediterranean Sea". VI International Symposium on Marine Sciences. Vigo (Spain), 20-22 June 2018.
55. **Emma Reyes**, 2018. "Skill assessment service for real-time ranking of met-ocean data products in the IBI area for emergency and SAR operators". 3rd Workshop of Remote Sensing and SAR exercises organized by the Spanish Maritime Safety and Rescue Agency. Madrid (Spain), 12-13 June 2018.
56. Alexander Barth, C. Troupin, **E. Reyes**, A. Alvera Azcárate, J. Tintoré, J. -M. Beckers, 2018. "Variational analysis of high-frequency radar surface currents using DIVA". EGU2018, Viena, Austria, 8-13 April 2018.
57. Jaime Hernandez Lasheras, Baptiste Moure, **Emma Reyes**, Alejandro Orfila, Melanie Juza, Eva Aguiar, and Joaquin Tintoré. "Assimilating Ibiza Channel HF radar currents in a high-resolution model" EGU2018, Viena, Austria, 8-13 April 2018.
58. Eva Aguiar, B. Moure, **E. Reyes**, J. Hernández, E. Heslop, M. Juza, E. Mason, J. Tintoré "Downscaling CMEMS Mediterranean model over the Western basin: impacts on mean flows and mesoscale eddies". EGU2018, Viena, Austria, 8-13 April 2018.
59. Miguel V. Charcos-Lloréns, M. À. Rújula, E. Heslop, A. Novellino, P. Goringe, J. G. Fernández, B. Frontera, C. Muñoz, X. Notario, **E. Reyes**, P. Rotllán, I. Ruiz, and J. Tintoré. "Multi-Platform Data Distribution Challenges from Observing Systems to Data Distribution". EGU2018, Viena, Austria, 8-13 April 2018.
60. **Emma Reyes**, Baptiste Moure, Alejandro Orfila, Eric Comerma, Tayebah Bakhshsh Christian De Lera Fernández, Joaquín Tintoré. "Real-Time Met-Ocean Data Ranking for Emergency Responders (SAR Operators)". Oceanology Internacional, 13 - 15 March 2018, London (UK).
61. Moure B., E. Aguiar, A. Álvarez-Ellacuría, S. Gómara, M. Gomila, J. Hernández, E. Heslop, M. Juza, T. Oguz, **E. Reyes**, M.A. Rújula, M. Torner and J. Tintoré. "SOCIB: observaciones, predicciones y servicios marinos en el Mediterráneo Occidental". Servicios marinos y supercomputación: experiencias y retos futuros, Santiago de Compostela (Spain), 2017.
62. Cristian Muñoz, Charles Troupin, Juan Gabriel Fernández, Biel Frontera, Paz Rotllán, Inmaculada Ruíz, **Emma Reyes**, Miquel Gomila, Sonia Gómara, David March, Emma Heslop, Diego Alvarez, Lluís Gomez-Pujol, Miquel Àngel Rújula, and Joaquín Tintoré. "The Data Lifecycle at SOCIB: responding to science and society needs". EuroGOOS International Conference: Operational Oceanography serving sustainable marine development. 3-5 October 2017, Bergen (Norway).
63. Julien Mader, Anna Rubio, Carlo Mantovani, Lorenzo Corgnati, Antonio Novellino, Guillaume Charria, Louis Marié, **Emma Reyes**, Céline Quentin, Annalisa Griffa, Patrick Goringe, Joaquín Tintoré and Patrick Farcy. "Future scenarios for the growing European HF Radar network". EuroGOOS International Conference: Operational Oceanography serving sustainable marine development. 3-5 October 2017, Bergen (Norway).
64. **E. Reyes**, B. Moure, A. Orfila, E. Comerma, TST. Bakhsh, C. De Lera Fernández, J. Tintoré. "Operational Data Delivery and Forecasting for emergency responders (SAR operators)". Copernicus Marine Week- HF Radar in Europe, 26 September 2017, Brussels (Belgium).
65. J. Mader, A. Rubio, A. Griffa, C. Mantovani, L. Corgnati, A. Novellino, J. Schulz-Stellenfleth, C. Quentin, L. Wyatt, M. Ruiz, P. Lorente, M. Hartnett, **E. Reyes** and P. Goringe. "Joint initiatives towards raising HF radars as a key component of European Coastal Observatories". Copernicus Marine Week- HF Radar in Europe, 26 September 2017, Brussels (Belgium).
66. **E. Reyes**, B. Moure, J. Hernández, E. Aguiar, M. Juza, A. Orfila and J. Tintoré. "HF Radar: a keystone for validating high-resolution ocean models". Radiowave Oceanography Meeting, 19-21 September 2017, Lüneburg (Germany).
67. L. Corgnati, C. Mantovani, S. Cosoli, **E. Reyes**, L. Petersen, T. Updyke, A. Rubio, A. Griffa and J. Mader. "Toward the pan-European High Frequency Radar network: progress on common protocols and QC for HF radar data". Radiowave Oceanography Meeting, 19-21 September 2017, Lüneburg (Germany).
68. J. Hernández Lasheras, B. Moure, **E. Reyes**, J. Marmain, A. Orfila and J. Tintoré. "Model velocities assessment and HF radar data assimilation in the Ibiza Channel". European Geosciences Union (EGU 2017) General Assembly 2017. Vienna (Austria). 23-28 April 2017.
69. Hernández, I., Orfila, A., **Reyes, E.** 2016. "Control of surface Coastal transport by Lagrangian Coherent Structures derived from HF radar". XXXII Trobades científiques de la Mediterrània – Josep Miquel Vidal. Planeta Oceà. Maó (Menorca). October 2016.
70. **Reyes, E.**, Troupin, C., Kriemeyer, A., Frontera, B., Moure, B., Orfila, A. and Tintoré, J. "The importance of an accurate antenna pattern. QA/QC & related practices". INCREASE HF Radar Experts Workshops. CNR-ISMAR, Lerici (La Spezia, Italy). September 2016.
71. Hernández-Carrasco, I., Orfila, A., **Reyes, E.** "Small scale blocking of Chl by HF Radar Lagrangian coherent structures". Non Linear Processes in Atmospheric and oceanic Flows, July 2016, Madrid (Spain).
72. Troupin C., J. Marmain, **E. Reyes**, A. Lana, V. Fernandez, B. Moure, M. Juza, A. Orfila and J. Tintoré. "SOCIB HF Radar: a key contribution to multi-platform ocean observation". JERICO-NEXT HF Radar workshop, March 2016, San Sebastian (Spain).
73. **E. Reyes**, C. González and O. Álvarez. "OceanUCA-Maps: an effective tool to reinforce oil spill

response in Andalusia". Special Session on Application of Numerical Modelling in Oceanography and Meteorology. XXIV Congress on Differential Equations and Applications / XIV Congress on Applied Mathematics. Cadiz (Spain). 8-12 June 2015.

74. Bolado M., J. Jesús Gómiz, **E. Reyes**, A. Vázquez, G. Navarro and M. Bruno. "A methodology to assess the role of the river discharges to the Gulf of Cadiz on the nutrient supply to the Alboran Sea". SWAT Conference. Sardinia (Italy). June 2015.

75. Pérez, P., M. Luisa Fernández, G. Ayensa, P. Montero, L. Navarro, I. Rodríguez, M. Dolores Jiménez, P. Montilla, R. Silva, Y. de Miguel, A. Santiago, C. González, **E. Reyes**, R. Fernandes, M. M. Santos, H. Oliveira, T. Tuohy, P. Shanahan, A. Kibble and D. John. "ARCOPOLplatform. Protecting the Atlantic European coast from maritime pollution". InterSpill2015, Amsterdam (Netherlands), 24 March 2015.

76. **E. Reyes**. "Hydrodynamic modelling systems and decision support tools in Andalusia". ARCOPOLplus Conference in Andalusia. Coastal pollution response: Technology Transfer, Training and Innovation. Puerto Real, Cádiz (Spain). 23-24 January 2014.

77. **E. Reyes**, C. J. González, C. Dastis, O. Álvarez, A. Izquierdo and M. Bruno. "COASTMAP: an effective tool for environmental prediction and management". 3rd Joint Seminar on Environment and Climate Change. Cádiz (Spain). 8-10 July 2013.

78. C. Dastis, **E. Reyes**, M. Bruno, P. Lorente, M. I. Ruiz and E. Álvarez. "Calibration and validation of high frequency radar current measurements in the Strait of Gibraltar". II Encuentro Oceanografía Física Española (Madrid). 14-16 November 2012.

79. González, C. J., **Reyes, E.**, Carmona, A., Megías, B., López, L., Vidal, J., Izquierdo, A., Álvarez, Ó. "Hydrodynamic modelling and operational oceanography for oil-spill events in the Andalusian coast: a real case study during the Fedra accident (October 2008)". Conference Instrumentation Viewpoint (MARTECH11 Workshop), Cádiz (Spain), 22-23 September 2011.

80. Izquierdo, A., Bethencourt, M., Benavente, J., González, C., **Reyes, E.**, Álvarez, O. "Hydrodynamic modelling as a tool for scattered shipwreck sites identification and prospecting: The 'Fougueux' site case". Conference Instrumentation Viewpoint (MARTECH11 Workshop), Cádiz (Spain), 22-23 September 2011.

Posters

1. Chevillard, C., Juza, M., Díaz-Barroso, L., **Reyes, E.**, Escudier, R., & Tintoré, J. Assessment of the ocean state, variability and changes in the Mediterranean Sea in the context of climate change using a decade of Argo data. 8th WMO Workshop, May 2024, Norrköping, Sweden.

2. Fernández-Mora, À., Criado, F. F., Soriano, J., **Reyes, E.**, Tintoré, J., & Sánchez, E. ONA-Toolbox, operational tool to address climate change effects for coastal adaptation plans. 2024 Ocean Decade Conference, April 2024, Barcelona, Spain. 10.25704/qwx-v840

3. Miguel V. Charcos Llorens, Francoise Pearlman, Jay Pearlman, Juan Gabriel Fernández, Lorenzo Corgnati, Milla Johansson, Lauri Laakso, Taavi Liblik, Julien Mader, Carlo Mantovani, Simone Marini, Marc Picheral, **Emma Reyes**, Ana Rubio, Inmaculada Ruiz, Jukka Seppala, Lars Stemmann, Timo Tamminen and Joaquín Tintoré. Data To Product Thematic Services Integration into e-JERICO. Bollettino di Geofisica, Vol.62 (195:196)- Supplement 1 (2021). IMDIS Conference, Online, 12-14 April, 2021.

4. Joaquín Tintoré, **Emma Reyes**, Paz Rotllán, Juan Gabriel Fernández, Baptiste Murre, John Allen, Verónica Ortiz and all SOCIB and IMEDEA team. "SOCIB: Multi-platform Ocean Observing and Forecasting Infrastructure. Scientific excellence with impact on society". OceanObs'19 - An Ocean of Opportunity, University of Hawaii, 16-20 September 2019.

5. Rubio A, Mader J, Corgnati L, Mantovani C, Griffa A, **Reyes E**, Asensio J-L, Álvarez-Fanjul E, Lorente P, Ruiz M-I, Horstmann J, Zambianchi E, Cardin V, Reyes C, Montero P, Vila B, Hartnett M, Barrera C1, Christensen K-H, Goringe P, Novellino A, Ciraolo G, Varela R, Piedracoba S, Zervakis V, Kalampokis A, Dadić V, Fernandes C, Cermelj B, Charria G, Tarot S, Caldeira R, Jousset S, Cariou V, Mando de Jong, Conley D, Drago A, Gauci A. "The European High Frequency Radar Network". OceanObs'19 - An Ocean of Opportunity, University of Hawaii, 16-20 September 2019.

6. **Emma Reyes** & SOCIB-IMEDEA teams in collaboration with AZTI, CNR-ISMAR, RPS Ocean Science, the Spanish Port System and Spanish Maritime Safety Agency. (2019). "SOCIB HF Radar system: Enhancing HF radar data discovery and use". Summer School on HF and X-band radars ISSOR'19. Ocean Networks Canada (Victoria, BC, Canada), 25-28 August 2019.

7. Adèle Révelard, **Emma Reyes**, Baptiste Murre, Paz Rotllán, Eric Comerma, Tayebah Tajalli Bakhsh, Anna Rubio, Julien Mader, Luis Ferrer, Christian de Lera Fernández, Enrique Álvarez-Fanjul and Joaquín Tintoré. "IBISAR downstream service: helping SAR operators and emergency responders to select the most accurate ocean forecast". CMEMS General Assembly 2019. Brussels (Belgium), 20-24 May 2019.

8. Murre B., J. Hernández Lasheras, M. Juza, E. Aguiar, A. Révelard, M. À. Fernández Mora, J. M. García-Valdecasas, A. Buils, P. Rotllán, J. G. Fernández, D. Álvarez Berastegui, D. March, **E. Reyes**, E. Heslop and J. Tintoré (2019). SOCIB ocean prediction systems and applications in the Western Mediterranean Sea. Ocean Predict'2019, GODAE OceanView Symposium, Halifax, Canada, 6-10 May 2019.

9. J. Tintoré, **E. Reyes**, P. Rotllán, J.G. Fernandez, B. Murre, J. Allen, E. Ortiz, and all SOCIB and IMEDEA team. 2018 "SOCIB, a Regional Ocean observing and forecasting infrastructure contributing to a long term sustained EOOS". EOOS Conference, Brussels (Toulouse) 21-23, November 2018.

10. Ismael Hernández, **Emma Reyes**, Baptiste Murre, Paz Rotllán, Eric Comerma, Tayebah Tajalli Bakhsh, Anna Rubio, Julien Mader, Luis Ferrer, Christian De Lera Fernández, Enrique Álvarez-Fanjul,

Alejandro Orfila, Joaquín Tintoré. 2018 "IBISAR: service for real-time ranking of met-ocean data products for emergency and SAR operators". EOOS Conference, Brussels (Toulouse) 21-23, November 2018.

11. Lorenzo Corgnati, Carlo Mantovani, Anna Rubio, Jose Luis Asensio Igoa, **Emma Reyes**, Antonio Novellino, Patrick Gorringe, Annalisa Griffa and Julien Mader. Building strong foundations towards the pan-European High Frequency Radar network. Session 3: Marine Environmental infrastructures for observation data. IMDIS Conference, Barcelona (Spain), 5-7- November 2018.

12. **Emma Reyes**, Baptiste Mourre, Paz Rotllán, Ismael Hernández, Eric Comerma, Tayebheh TajalliBakhsh, Anna Rubio, Julien Mader, Luis Ferrer, Christian De Lera Fernández, Enrique Álvarez-Fanjul, Alejandro Orfila, Joaquín Tintoré. 2018 "IBISAR: service for real-time ranking of met-ocean data products for emergency and SAR operators". 4th GEO Blue Planet. Toulouse, (France), 4-6 July 2018.

13. Lorenzo Corgnati, C. Mantovani, A. Rubio, **E. Reyes**, C. Quentin, S. Cosoli, A. Novellino, J. Mader, A. Griffa. "The European common data and metadata model for real-time High Frequency Radar surface current data". EGU2018, Viena, (Austria).

14. Ismael Hernández-Carrasco, L. Solabarrieta, G. Esnaola, **E. Reyes**, A. Rubio, A. Orfila, 2018. "Skill assessment of gap filling methodologies for HF-radar currents". EGU2018, Viena, (Austria).

15. Joaquín Tintoré, Heslop, E; Casas, B; Pascual, A; Allen, J; Orfila, A; Ruiz, S; Torner, M; Gomez-Pujol, L; Mourre, B; Alvarez, D; March, D; Castilla, C; Fernandez, EA; Hernández, J; Canellas, T; Álvarez, A; Fontera, B; Carrasco, MA; Pitarch, S; Alemany, F; Reglero, P; Velez-Belchi, P; Ruiz, J; Oguz, T; Gomez, M; Gomara, S; Miralles, A; Balaguer, P; Juza, M; Lizaran, I; Alou, E; Muñoz, C; Rùjula, A; Wirth, N; Simonet, M; Ruiz, I; **Reyes, E**; Fernández, JG; Revuelta, O. 2017. Paradigm change in ocean studies: multi-platform observing and forecasting integrated approach in response to science and society needs. Copernicus Marine Week, 25-29 September. Brussels (Belgium)

16. E. Aguiar, B. Mourre, M. Juza, J. Hernández, E. Heslop, **E. Reyes**, R. Escudier and J. Tintoré (2017). Multi-platform model validation in the Western Mediterranean Sea: impact of downscaling. Copernicus Marine Week, 25-29 September. Brussels (Belgium).

17. J. Hernández, B. Mourre, **E. Reyes**, J. Marmain, J. Orfila, J. Tintoré (2017). First steps towards HF radar data assimilation in the Ibiza Channel. Copernicus Marine Week, 25-29 September. Brussels (Belgium).

18. **E. Reyes** & SOCIB team. 2017. SOCIB HF Radar system: keeps the coast in focus. Summer School on HF and X-band radars ISSOR'17. University of Caen (France), August 21-25.

19. Hernández, J., B. Mourre, **E. Reyes**, J. Marmain, A. Orfila and J. Tintoré (2017). Model velocities assessment and HF radar data assimilation in the Ibiza Channel. EGU General Assembly, Vienna (Austria), 23-28 April 2017.

20. Mourre B., J. Vitorino, S. Ciliberti, L. Ferrer, G. Korres, L. Laakso, H. Wedhe, J. Hernandez, M. Juza, E. Aguiar, **E. Reyes**, E. Heslop, E. Jansen, L. Perivoliotis, J. Mader, A. Rubio, J. Tintoré and I. Puillat (2017). "Operational oceanography and coastal forecasting" Joint Research Activity Project in JERICO-NEXT, the European Coastal Observatory Network. 5th GODAE Ocean View Coastal Ocean and Shelf Seas Task Team International Meeting. Cape Town, South Africa, 3-7 April 2017.

21. Aguiar, E., M. Juza, J. Hernández, B. Mourre, E. Heslop, **E. Reyes**, R. Escudier and J. Tintoré (2017). Multi-platform coastal model assessment and impact of downscaling in the Western Mediterranean Sea. 5th GODAE Ocean View Coastal Ocean and Shelf Seas Task Team International Meeting. Cape Town, South Africa, 3-7 April 2017.

22. Hernandez J., B. Mourre, **E. Reyes**, J. Marmain, A. Orfila and J. Tintoré (2017). Model velocities assessment and HF radar data assimilation in the Ibiza Channel. EGU General Assembly 2017, Vienna (Austria), 23-28 April 2017.

23. Hernández, I., Orfila, A., **Reyes, E**. 2016. Submesoscale blocking of Chl-a by HF radar LCSs. Nonlinear processes in oceanic and atmospheric flows (NLOA), Madrid (Spain). 6-8, July 2016.

National Projects

- **MEGAN** (Mesoscale and submesoscale processes in the Strait of Gibraltar: The Trafalgar-Alborán connection). Funded by: Spanish Ministry of Economy and Competitiveness (CTM2013-40048-C2-2-R). Duration: 2013-2016. PI: Prof. Miguel Bruno Mejías (University of Cadiz).
- **MAGALLANES** (Scientific and technical assessment to the project MAGALLANES Renovables). PI: Prof. Miguel Bruno Mejías (University of Cadiz).
- **MONGACLIMAR** (Numerical modelling of the hydrodynamics and associated biological response in the strait of Gibraltar and Alboran Sea. A retrospective and prospective analysis of relevant climatic scenarios". Funded by: Spanish Science and Innovation Ministry (CTM-2008-06124). Duration: 2008-2012. PI: Prof. Miguel Bruno Mejías (University of Cadiz).
- **ESEOO** (Establishment of a Spanish Operational Oceanography System, Andalusian Region Coast). Funded by: Spanish Science and Technology Ministry (VEM2003-20577-C14-07). Duration: 2004-2006. PI: Dr. Alfredo Izquierdo González (University of Cadiz).

European Projects

- **FOCCUS** (Forecasting and observing the open-to-coastal ocean for Copernicus users). Coordinator: Joana Staneva (HEREON). Duration: 01/01/2024-31/12/2026. Role: WP leader on coastal observations.
- **FaSt-SWOT** (Small-scale Ocean currents from cross-platform integrated experiments and numerical simulations: contribution to the new SWOT satellite). Coordinator: Ananda Pascual IMEDEA (CSIC-UIB). Duration: 01/09/2022 - 31/08/2026. Role: Member of the research team responsible of the analysis of hourly HF radar surface currents to analyze the dominant temporal and spatial scales in the NW-Mediterranean.

- **JERICO-S3** (Joint European Research Infrastructure of Coastal Observatories: Science - Service - Sustainability). Programme: H2020-INFRAIA-01-2018-2019. Duration: 02/2020-01/2024. Coordinator: IFREMER (France). Role: Researcher member of the HF radar task team contributing to the integration of HFR BPs into a homogenized handbook for the coastal observing platforms in the OBPS repository; the implementation of functional tools for HFR community; the definition of KPPIs for HFR network.
- **EuroSea** (Improving and Integrating European Ocean Observing and Forecasting Systems for Sustainable use of the Oceans). Programme: H2020-EU.3.2.5.1 - Climate change impact on marine ecosystems and maritime economy (project Grant agreement ID: 862626). Duration: 1/11/2019-31/12/2023. Coordinator: Helmholtz Zentrum Für Ozeanforschung Kiel (Germany). Role: Researcher member of the HF radar task team in charge of developing tools for supporting the HFR community (outage reporting, historical data reprocessing, model assessment).
- **COPERNICUS MARINE – Production**. Programme: Copernicus Marine Environmental Monitoring Service – Provision of In Situ Ocean Observation Products (82-CMEMS-TAC-INSITU), European Commission. Main Contractor: Mercator Ocean International. Duration: 01/2022-12/2024. Coordinator: IFREMER. Role: member of the HF radar task team contributing to the UV REP product for HFR and to the Service evolution task for the enhancement of UV procedure for HFR.
- **COPERNICUS IN SITU TAC- Phase II**. Programme: Copernicus Marine Environmental Monitoring Service In Situ TAC - Phase II (Thematic Assembly Centre), European Commission. Main Contractor: Mercator Ocean International. Duration: 01/2018-03/2021. Coordinator: IFREMER. Role: member of the HF radar task team in charge of task 6.4- Service evolution task for the improvement of the monitoring tools and services for users.
- **67-UU-DO-CMEMS-DEM4 - IBISAR** (Skill assessment service for real-time met-ocean data product ranking in the IBI area for emergency and SAR operators). Programme: Copernicus Marine Environmental Monitoring Service - User Uptake, European Commission. Main Contractor: Mercator Ocean International. Duration: 05/2018-03/2021. Coordinator: SOCIB. **Role: Principal Investigator.**
- **JERICO-NEXT** (Joint European Research Infrastructure network for Coastal Observatory – Novel European eXpertise for coastal observatories). Programme: H2020. Project number 654.410. Duration: 09/2015-08/2019. Coordinator: IFREMER. Role: Researcher (participation in the main HF Radar activities are: Harmonization, Networking, Added-value products developments, Data management, Virtual access).
- **CMEMS-SE INCREASE** (Innovation and Networking for the integration of Coastal Radars into European mArine SErviceS). Programme: CMEMS- Service Evolution 21-SE-CALL1. Duration: 04/2016-04/2018. Coordinator: AZTI (Julien Mader). Role: Researcher (subcontractor of ETT S.p.A.). Consultancy in data harmonization, data distribution and access, evaluation of the developed standardization tools, development of HFR added-value products, networking, promotion activities and user engagement.
- **ARCOPOLplatform** (Platform for improving maritime coastal pollution preparedness and response in Atlantic regions). Programme: Atlantic Area Transnational Programme, EU Commission / ERDF (2013-1/252). Duration: 01/2014-06/2015 (18 months). PI: Dr. Óscar Álvarez Esteban (University of Cadiz). Atlantic project award in the Atlantic Marine & coastal environment category in September 2016. Role: Researcher in charge of the implementation of data storage optimization routines; maintenance and upgrade of the web-based GIS Operational Oceanography System.
- **ARCOPOLplus** (Improving maritime safety and pollution response through technology transfer, training and innovation). Programme: Atlantic Area Transnational Programme, EU Commission / ERDF (2011-1/150). Duration: 01/2012-12/2013 (24 months) PI: Dr. Óscar Álvarez Esteban (University of Cadiz). Role: Researcher in charge of improving and optimizing the automation processes for the met-ocean model forecasts and model skill assessment.
- **TRADE** (Trans-regional RADards for Environmental applications). Programme: EU/INTERREG (0419_TRADE_5_E). Duration: 2011-2013. PI: Dr. Miguel Bruno Mejías (University of Cadiz). Role: Researcher in charge of HF radar surface current Quality Assessment and scientific data exploitation.

Courses

- **2022/March**. "Protection and Preservation of the marine environment". Lecturers from: ATECMA, 21/03/2022 - 03/04/2022
- **2021/Sep**. "Marine Data Management, Governance and the MEDIN toolset" on OceanTeacher Global Academy (OTGA), 13-17 September 2021.
- **2021/June**. Python – "Introduction and libraries for data analysis". Lecturer: Isaac Lera Castro. 12 hours.
- **2020/July**. "Machine Learning – Data Science in Python". Lecturer: Juan Gabriel Gomila Salas. 48 hours of online video tutorials.
- **2020/March**. Copernicus MOOC (Massive Open Online Course), University of Luxembourg Competence Centre and PwC for the European Commission. 24 hours along 12 weeks.
- **2019/Aug**. ISSOR'19. "Summer School on HF and X-band radars". Ocean Networks Canada", Victoria - BC (Canada)
- **2018/Oct**. HFR Work-camp "The EU standard: make it your own" (3 days). Organized by AZTI and CNR-ISMAR. Held in Bilbao (Spain), 22-24 October 2018.
- **2018/Sep**. COSMO Lagrangian model (<http://doi.org/10.5281/zenodo.3522268>) training workshop (1 day). Organized by ICM-CSIC. Held in Barcelona (Spain), 18 September 2018. Educator: Joaquim Ballabrera Poi (COSMO project PI)

- **2018/Jul.** Course "Python for Scientists: Introduction and basic libraries for data analysis" (25 hours). Held in University of Balearic Islands, Palma (Spain), 9-13 July 2018. Educators: Isaac Lera Castro, Gabriel Moyà Alcover and Joan Huguet Garcia.
- **2017/Aug.** ISSOR'17. "Summer School on HF and X-band radars". University of Caen (France)
- **2016/Oct.** Online course "Monitoring the Oceans from Space" (5 weeks, 3hours per week). 24.Oct-25. Nov.2016. Created by EUMETSAT. Educators: Mark Higgins, Helen Czerski and Hayley Evers-King.
- **2016/Jan.** Course "Python applied to Oceanography". (12 hours). 27-29. Jan.2016. University of Cadiz, provided by SOCIB. Educators: Charles Troupin and Evan Mason.
- **2015/Jul.** Webinar "Introduction to metadata standard for data catalogue service". Pedro Montero. (1 hour). Organized by PROTECMA.
- **2013/Oct.** "Supercomputing: parallel programming and optimization using available software development tools " course (15 hours). University of Cádiz provided by CESGA and Hewlett Packard.
- **2009/Dec.** "Optical Physical and Ecosystem Regional Assessment (OPERA)" workshop. NATO Undersea Research Centre, La Spezia, Italy.
- **2009/Jul.** Intensive course on "free software for Science and Engineering: Elmer" (20 hours). University of Cadiz.
- **2008/Oct.** "3rd European Gliding Observatories Workshop and Glider School". NATO Undersea Research Centre, La Spezia, Italy.
- **2007/Dec.** "Introduction to the usage and programming of supercomputer resources" (12 hours). University of Cadiz, Spain
- **2006/Sep.** "Coastal Dynamics Modelling" summer school (22.5 hours). Organised by CNRS in Toulon, France.
- **2006/Aug.** "Climate Change impacts on marine ecosystems" summer school. Middle East Technical University Ankara, Turkey.
- **2006/March.** "Pedagogical Aptitude Certificate". Complutense University of Madrid, Spain.

Scholarships

- **2008.** Assistant project manager (3 months) of "ICZM curriculum adaptation to the two-level system (EU-COMET2)". Funded by: TEMPUS-TACIS III, EU-COMET II, Joint European Project (CD_JEP-25236-2004).
- **2007.** Research scholarship (6 months). Title of the work: "Characterization of coastal ocean dynamics and its effects on off-shore aquaculture fish cages from PIAGUA (Piscifactoría de Aguadulce) in Almería". Funded by: Andalusia Agency for agriculture and fisheries development.
- **2007.** Student-collaboration Scholarship at the App. Phys. Dept., University of Cádiz (Spain).
- **2005-06.** Mapfre Foundation Research scholarship (1 year). Title of the work: Development of an operative oil spill dispersion model in the marine environment: the case of the Strait of Gibraltar"
- **2005.** Research scholarship (2 months). Title of the work: "Hydrodynamic characterization of the coastal strip in front of Roche Cape (Conil)". Funded by: Andalusia Agency for agriculture and fisheries development
- **2004-05.** Graduate Assistantship at the Office of the Vice-rector for International Relations at the University of Cádiz (6 months).

Research stays

- **2010.** Max Plank Institute für Meteorologie. Ozean im Erdsystem Department, Hamburg, Germany (3 months). Duties: Implementation of atmospheric forcing to a regional ocean model in the Strait of Gibraltar.
- **2008.** NATO Underwater Research Center (NURC), Environmental Processes and Prediction Branch. La Spezia, Italy (4 months). Duties: Adaptive sampling during the sea trial TSS-08 and validation of COAMPS with meteo-buoy data in the Black and Marmara Seas.
- **2006.** MeteoGalicia (3 weeks), Santiago de Compostela, Spain. Duties: learning the use of state-of-the art meteorological models and analysis of their results.
- **2003-04.** Carl Von Ossietzky Universität in Oldenburg, Institute for Chemistry and Biology of the Marine Environment (ICBM), Marine Physics Department, Germany (6 months). Student assistant of the project "EU-CRAFT-Projects Fluosense". Duties: detection of oil spills on the ocean surface using LiDAR system.
- **2002-03.** Carl Von Ossietzky Universität in Oldenburg, Institute for Chemistry and Biology of the Marine Environment (ICBM), Marine Physics Department, Germany (8 months). Erasmus Mundus Scholarship. Duties: programming and data evaluation in the scope of the project "Estimation of remote-sensing reflectance from above-surface measurements".
- **2002.** University of San Carlos of Guatemala, Aquaculture and Marine Studies Centre, Guatemala (2 months). MAEC-AECID grant of the Spanish Ministry of Foreign Affairs and Cooperation (MAEC) and the Spanish Agency for International Development Cooperation (AECID) Spain-Latin America. Duties: monitoring of harmful algae bloom on the Pacific coast of Guatemala.

Sea expeditions

- **FaSt-SWOT 2** (Fine-Scale ocean currents from integrated multi-platform experiments and numerical simulations: contribution to the new SWOT satellite mission)
On board of the RV SOCIB – Balearic Sea, May/2023. Drifter acquisition and deployment strategy.
- **ALOMEx15** (Atlantic LiDAR Optical Measurements Experiment 2015)

On board of the NRV Alliance – Alboran Sea, Nov/2015. Model performance assessment; detection of internal waves with LiDAR; support of real-time met-ocean forecast and MODIS-Aqua and VIIRS satellite images.

- **MEGAN2015** (Mesoscale and submesoscale processes in the Strait of Gibraltar: The Trafalgar-Alboran connection) – Gulf of Cadiz-Strait of Gibraltar-Alboran Sea, Sep-Oct/2015. Near-real time on-land support.
- **ALBORAN2011**
On board BH Malaspina – Algeciras Bay and Alboran Sea, Oct/2011. HF radar current measurement validation against ADCP records and Lagrangian buoy trajectories; analysis of the changing vertical density structure over the entire water column due to internal waves.
- **ZEE-09** (Exclusive Economic Zone-EEZ)
On board BIO Hesperides – North-western Iberia Peninsula, Jul-Aug/2009. Data acquisition and analysis for describing the surface current patterns and assessing the physical and biogeochemical properties of surface water in the Western Cantabrian Sea during summer.
- **TSS-08** (Turkish Strait System)
On board NRV Alliance – Aegean, Marmara and Black Seas, Aug-Oct/2008. Adapting Sampling and validation of COAMPS model.
- **TRAFALGAR**
On board BH Malaspina – Coastal strip of Trafalgar Cape, Apr/2006. Data acquisition and analysis for environmental impact assessment of the offshore wind farm in the area.
- **ESTRECHO**
On board BH Malaspina – Gibraltar Strait and Trafalgar Cape, Nov/2005. CTD casts analysis.
- **BFU04** (Baltic Floating University)
On board Centaurus II – Finland Gulf and Baltic Sea, Jul-Aug/2004. Training on board: shipboard data collection, processing and analysis; daily lectures.
- **GEMA III** (Strait of Gibraltar- Alboran Sea)
On board BH Tofiño – Alboran Sea and strait of Gibraltar, Nov-Dec/2001. Acquisition of tide-gauge data to assess the ocean model's forecasts reliability.

Professional Memberships

- **2021 – present.** Member of the Steering Committee of the Educational Coordination Agreement between SOCIB and the University of Cádiz.
- **2020 – 2022.** Member of [EuroGOOS Data-MEQ Working Group](#).
- **2019 – 2022.** Co-chair of the HF Radar Task Team in [MONGOOS](#) (Mediterranean Operational Network for the Global Ocean Observing System).
- **2018 –present.** Member of [EuroGOOS HF Radar Task Team](#) (leader of three tasks: edition and distribution of the biannual newsletter; searching for new opportunities for joint proposals and promoting partnership; boosting of HFR community interaction and collaboration).
- **2018 – present.** Coordinator of the collaborations between SOCIB and the Spanish Port System.
- **2017 – present.** Member of the Steering Committee of the Agreement between SOCIB and the Spanish Maritime Safety and Rescue Agency.

Workshop Organization

- **2024.** Half-day expert-led workshop on data management, FAIRness and interoperability with Dr. Simona Simoncelli, researcher at Istituto Nazionale di Geofisica e Vulcanologia (INGV), Bologna, Italy, 28 June 2024. Topics: open science, data management, FAIRness of digital assets.
- **2023.** Expert-led 1-day workshop on Digital Twin of the Ocean with Dr. Alain Araud, Head of Digital ocean Department (Mercator Ocean International). SOCIB, Palma (Spain), 7 September 2023. Topics: what is a DTO, how it works, who are the main users and which are the main applications and “what-if scenarios” proposed, the core data infrastructures and ocean services as well as relevant existing European projects.
- **2021.** 10th MONGOOS workshop “MONGOOS: 10 Years of Operational Oceanography in the Mediterranean Sea – Towards a Full Ocean Data Integration”. 26-27 October 2021, virtual event. Topic: integration of science-based knowledge and promotion of solution-oriented research in the Mediterranean Sea. Content: 3 sessions, 25 talks, more than 140 registrations from 19 different countries.
- **2020.** Expert-led 2-day workshop on HFR with Dr. Sun Yong Kim (Environmental Fluid Mechanics Laboratory -EFML-, Department of Mechanical Engineering. School of Mechanical and Aerospace Engineering, Korea Advanced Institute of Science and Technology, -KAIST-, South Korea). SOCIB, Palma (Spain), 23-24 January 2020. Topics: HF radar multiyear data analysis, data assimilation approaches, Lagrangian applications, submesoscale eddies monitoring, quality assessment techniques.
- **2017.** Expert-led 2-day workshop on HFR with Dr. Alexander Barth (GHER -GeoHydrodynamic and Environmental Research – group of the University Liège, Belgium). SOCIB, Palma (Spain), 30-31 October, 2017. Topics: HF radar gap-filling methods, data assimilation and ROMS nesting procedures.

Participation in funding and tender opportunities

- **2023.** Participation in call for grants for the recruitment of technical support staff (PTA) from the Ministry for Science and Innovation.
- **2022.** Participation in call for postdoctoral grants Margalida Comas fellowship for young researchers from the Government of the Balearic Islands.

- **2022.** Submission of a public tender for **equipment procurement** for Unique Scientific and Technical Infrastructures (ICTS) within the framework of the Spanish Recovery, Transformation and Resilience Plan.
- **2022.** Participation in call for grants for the **recruitment of technical support staff** (PTA) from the Ministry for Science and Innovation.
- **2021.** Submission of a public tender to promote the **recruitment of researchers** with a recognised career, in the framework of the Ramón y Cajal grants programme from the Ministry for Science and Innovation.
- **2021.** Submission of a public tender in the framework of the State Subprogram for Research Infrastructures and **Scientific-Technical Equipment**.
- **2018.** Grant to promote **youth employment** in the framework of the implementation of the youth guarantee by the public employment services.

TEACHING AND SUPERVISION EXPERIENCE

MSc Thesis Supervisor 2023

Student Internship Supervisor 2021-22

Final Degree Project Supervisor 2021

Thesis Dissertation Committee 2020

Online seminar 2020

BSc. Lecturer 2011

Postgraduate Lecturer 2010

MSc Thesis Supervisor 2010

- **Ms. Carla Chevillard.** MSc Thesis: "Assessment of the ocean state, variability and changes in the North-Western Mediterranean Sea from multi-platform observations in the context of climate change". IME Atlantique (France). Supervision: Juza, M., Reyes, E., D., Lara (SOCIB)
- **Ms Daisy Pemba Garcia Steinebronn.** Student supervisor at SOCIB (400 hours) -15 Sep 2021 – 14 Jan 2022.
Final report available: https://www.socib.es/files/documents/2_MemoriaPracticas_DaisyPembaGarc%C3%ADa.pdf.
Executive summary available: https://www.socib.es/files/documents/1_ExecutiveSummary_DaisyPembaGarc%C3%ADa.pdf.
Her research awarded "[Modesto Viguera 2022](#)" price second place.
- **Ms Daisy Pemba Garcia Steinebronn.** Final Degree Project "Particle retention at the north-western coastal margin of the strait of Gibraltar with the estimation of residence times using HFR measurements" (University of Cádiz, Spain). <http://hdl.handle.net/10498/25532>
- **Thesis Committee** for Marina Bolado-Penagos. "[Análisis de los procesos hidrodinámicos de meso y submesoescala que condicionan el transporte de propiedades hacia el mar de Alborán a través del estrecho de Gibraltar](#)". University of Cádiz. 20 November, 2020.
- **Lecturer:** delivery of a webinar focused on "Scientific and Societal applications of ocean currents data from high-frequency radars" for Search and Rescue operators and students from the Jovellanos Centre of the Spanish Maritime Safety and Rescue Agency. 30 Jun 2020. [Link to the video](#).
- **Teaching assistant:** practical session of Atmosphere-ocean interaction during one semester in the third year of the Degree in Nautical Sciences and Maritime Transport (University of Cádiz, Spain). Design of teaching materials: ICT integration. Average group size, 20 students. 3 ECTS.
- **Lecturer – Oil Spill Management Postgraduate Course** (08/04/2010-25/02/2011) – theoretical lectures (4 h – Implementation of the Operational Oceanography System at the University of Cádiz; 4 h – numerical models from the Operational Oceanography System) and practical session (2 h). Total ECTS = 0.4 (700 hours, 28 ECTS).
- **Mr Augusto Antonio Sepp Neves.** MSc Thesis: "Use of altimeter data for the improvement and validation of an operational oceanography system in the Strait of Gibraltar- Spain". Erasmus Mundus joint Master Degree in Water and Coastal Management (University of Cádiz, Spain)
- **Ms Josephine Ffion Atkins.** MSc Thesis: "Using MODIS SST and Chl-a to validate a 3D hydrodynamic model of barotropic internal waves in the Strait of Gibraltar- Spain". Erasmus Mundus joint Master Degree in Water and Coastal Management (University of Cádiz, Spain)

SKILLS

Native language

Other language(s) (self-assessment)

English¹

German²

Italian

Spanish

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1
B2	B2	B2	B2	B1
B1	B1	B1	B1	A2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user. ¹ B2 English and ²DSH German level certificates.

Communication skills

- **Effective communication**, both written and verbal, **and good social skills** and active listening abilities gained during the participation at national/international conferences.
- Demonstrated **strong personal presentation skills**, with ease and natural style, during oral and poster presentations at international conferences, meetings, seminars and workshops for both broader audiences (general public, outreach and education).
- Demonstrated **publications** of articles, internal reports, guidelines and submission of proposals in response to several calls.
- Demonstrated **strong English verbal and written** communication and interpersonal skills.
- Demonstrated **skills in other languages** (e.g. Spanish, German, Italian), mostly acquired during different internships and research visits to different countries.
- Participation in **science communication, public engagement and outreach activities** in my current job position.
- Highly **motivated person to communicate marine science** to the general public in the context of different activities ([performance](#), [scientist speed dating](#), [podcast](#), [science storyteller](#), [radio](#) and [tv interviews](#)).

Digital skills

- **Operating systems:** Mac OS X, Linux-based operating systems, Windows.
- **Programming languages:** MatLab (advanced), Fortran (intermediate), Python (basic), LaTeX
- **MS Office Suite** (advance)
- **Software for management, visualization and analysis** of scientific data in **NetCDF format**: CDO, NCVIEW, GrADS, Ferret, and ncBrowse.
- **Scripting languages:** Shell-scripting (Bash scripting advanced)
- **Internet file transfer protocols, web servers** for geo-referenced data and metadata access, **data access protocols**, web map services.
- Experience with **High Performance Computing**, FTP server administration, software for real-time alerts.
- **HFR manufacturer software packages:** Radial and Combine Suites for CODAR SeaSonde

Personal skills

- **Leadership:** head of the HF radar facility at SOCIB; principal investigator of IBISAR public-private-partnership project; leader of three tasks in EuroGOOS HFR Task Team; co-chair of MONGOOS; main author of a collaborative research with an intersectoral group of 42 co-authors, from 22 institutions belonging to 7 countries; membership in three Steering Committees.
- **Ability to plan, organize and manage:** team and subcontractors management, field validation campaigns and strategic planning, project scheduling, management and handling of budget as IBISAR PI and as head of department. Manage paperwork efficiently and effectively. Experience in tender submissions.
- **Teamwork:** as a multidisciplinary person, I love working in open-minded teams, collaborating, integrating different skills and disciplines. I naturally enjoy dealing with people, with good listening and interpretation skills. I value the contribution that each person brings, fostering a respectful workplace, upholding the values of diversity, equity and inclusion.
- **Analytical and synthesis capacity:** as extremely analytical and data-oriented person, I believe that I am well prepared to thrive in a data-driven world. Indeed, I must admit that even in my personal life I use data to make confident decisions.
- **Negotiating capacity:** Ability to handle conflicts and to deal with queries in a friendly, attentive, effectively and helpful manner.
- **Rigorous and orderly work:** I am very orderly and systematic in organizing, attending to my responsibilities and in my ways of doing things.
- **Initiative and autonomy:** Hard strong perseverance, which has allowed me to attain my personal and professional goals. Strong personal commitment to successfully completing all projects and to achieve optimal results on time. Ambitious, hard driving, motivated in life and at work.
- **Performance orientation:** I have demonstrated innovative planning and problem-solving skills and have acquired extensive experience in effectively organize, assemble and arrange resources to meet goals and in preparing for events and activities while dealing with changing priorities and procedures.
- **Proactive in fostering and facilitating women's involvement** in ocean science (member of Platform 11F - <https://11defebrero.org/> - aiming to inspire the future generations for a more inclusive, robust and forward-leading discipline).

FURTHER INFORMATION

Driving licence
Hobbies and interests

- B, International Driver's License.
- I am passionate about oceans, family and friends.
- I enjoy nature and outdoor sports (e.g. biking, hiking, swimming); I love traveling, dancing, music and theatre