

PERSONAL INFORMATION



Anna Rubio (PhD)

AZTI - Tecnalia / Unidad de Investigación Marina
 Herrera Kaia, Portualdea z/g. 20110 Pasaia (SPAIN)
 0034 667 174 424
arubio@azti.es @arubio_ocean
 Research Gate: www.researchgate.net/profile/Anna_Rubio
 LinkedIn: www.linkedin.com/in/anna-rubio-physicalocean
 Sex female | Date of birth 15/04/1977 | Nationality Spanish | Driver License B1

CURRENT POSITION

Since October 2008 I work at AZTI Marine Research (Pasaia, Spain) as researcher in physical oceanography, I am presently the head of the Operational Oceanography group. My work is mainly focused on the Bay of Biscay shelf-slope circulation and mesoscale activity. My current research is based on different source in-situ and remote sensing data and on high frequency observations of ocean surface currents from HF radar. I have contributed to the development and implementation of the Operational Oceanography system of the Basque Country (EuskOOS) and I am leading the development of the Bay of Biscay Integrational Regional Site in the framework of JERICO-S3 H2020 project. I have authored/co-authored >70 peer-reviewed papers (H-22 Web of Science), authored/co-authored numerous contributions to international conferences, supervised 3 successful PhDs (1 ongoing), several successful MSc candidates, participated in >10 PhD committees and to the review of several scientific projects, articles and book chapters. I have participated in several European projects, as JERICO-NEXT, INCREASE, COMBAT, IBISAR, EUROSEA, FORCOAST (Leader of WP2 - User's engagement), MYCOAST and LIFE-LEMA. Currently, I am mostly involved in the projects OSTREOBILA, PASAIA SMART BAY-OARSOALDEA BLUE HUB, LAMARCA, CMEMS-IN Situ TAC-phase II, and JERICO-s3 (leading WP1 on the Scientific Strategy) and tasks related to operational oceanography and HF radar technology and its applications. including, the monitoring and forecast of marine litter hotspots. I am involved in European and international networking initiatives (Member of EuroGOOS HFR Task Team, the EuroGOOS Coastal Working Group and ICES WGOOFE).

WORK EXPERIENCE

- Today **PRINCIPAL RESEARCHER, HEAD OF MARINE TECHNOLOGIES**
 AZTI Marine Research. Researcher in physical oceanography at AZTI since October 2008.
- Oct. 2007 – Oct. 2008 **POSTDOCTORAL FELLOWSHIP**
 Laboratoire de Physique des Océans (UMR: UBO-IFREMER-CNRS-IRD), Brest, France; under the supervision of Dr. Bruno Blanke. Study of mesoscale activity in the Southern Benguela eastern boundary upwelling system (South Africa).
- Sep. 2006 – Sep. 2007 **POSTDOCTORAL FELLOWSHIP**
 French research institute IFREMER (September 2006 - September 2007) at the Laboratoire Environnement et Ressources Provence-Azur-Corse (LER/PAC), under the supervision of Dr. Pierre Garreau.
- Jan. 2001 – Jul. 2006 **PREDOCTORAL FELLOWSHIPS**
 Laboratori d'Enginyeria Marítima of the Universitat Politècnica de Catalunya, LIM-UPC (Barcelona, Spain), under the supervision of Dr. Manuel Espino. PhD grant from the SPANISH SCIENCE AND EDUCATION MINISTRY (Jan. 2001 – Dec 2015) and PhD grant from the Universitat Politècnica de Catalunya (Jan 2006 – Jul.2006).

 - PhD research stay (June – Dec. 2004) , LEGI - Université Joseph Fourier, Grenoble (France). Numerical modelling of the mesoscale variability in the NW Mediterranean. Supervisor: Dr. Bernard Barnier.
 - PhD research stay (Oct. – Dec. 2002), CEFREM, Université de Perpignan, Perpignan (France). Hydrographic and ADCP data processing, geostrophic circulation inferring and analysis. Supervisor: Dr. Xavier Durrieu de Madron

EDUCATION AND TRAINING

- Sep. 2001 - Jun. 2006 **PhD in Physical Oceanography**
 LIM-Universitat Politècnica de Catalunya (Barcelona, Spain). Supervisor: Dr. Manuel Espino Infantes.
- Sep. 2001 - Sep. 2003 **DEA in Physical Oceanography**
 Laboratori d'Enginyeria Marítima of the Universitat Politècnica de Catalunya (Barcelona, Spain).
- Sep. 1995 – June 2000 **MSc Marine Sciences**
 Universitat de Alcant (Alacant, Spain)

PERSONAL SKILLS

Mother tongue(s)	SPANISH, CATALAN				
Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
ENGLISH	C2	C2	C2	C2	C2
FRENCH	C2	C2	C2	C2	C2
Digital competence	<small>Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user (Common European Framework of Reference for Languages)</small> Programming skills: MATLAB, Fortran, LINUX environment; others: Office environment, TEAMS				

ADDITIONAL INFORMATION

Selected publications (last 3 years)

See complete list at:

<https://orcid.org/0000-0002-6284-2639>

1. Bertin, S., **Rubio, A.**, Hernández-Carrasco, I., Solabarrieta, L., Ruiz, I., Orfila, A., Sentchev, A., 2024a. Coastal current convergence structures in the Bay of Biscay from optimized high-frequency radar and satellite data. *Science of The Total Environment*, 2024. <https://doi.org/10.1016/j.scitotenv.2024.174372>
2. Mantovani C., Pearlman J., **Rubio A.**, Przeslawski R., Bushnell M., Simpson P., Corgnati L., Alvarez E. Cosoli S., Roarty H. An ocean practices maturity model: from good to best practices. *Frontiers in Marine Science*, 11, 2024. DOI=10.3389/fmars.2024.1415374
3. Solabarrieta L., Fernandes M., Ruiz I., Ferrer M., Liria P., de Santiago I., Sánchez J., Aranda J.A., **Rubio A.** Waves from compact SeaSonde® High Frequency radars in the southeastern Bay of Biscay: measurement performance under different noise and wind conditions. *Frontiers in Marine Science*, 11, 2024, doi=10.3389/fmars.2024.1250815
4. Manso-Narvarte, I., Ainhoa Caballero, Ismael Hernández-Carrasco, Alejandro Orfila, María Santos Mocoora, Unai Cotano, Gabriel Jordà, Amandine Declerck, Matthias Delpey, **Anna Rubio**, Effect of circulation at early life stages of European anchovy in the Bay of Biscay from observational data and a Lagrangian approach, *Journal of Marine Systems*, 242, 2024, doi.org/10.1016/j.jmarsys.2023.103938.
5. El Serafy Ghada, Mészáros Lőrinc, Fernández Vicente, Capet Arthur, She Jun, Sotillo Marcos Garcia, Melet Angelique, Legrand Sebastien, Mourre Baptiste, Campuzano Francisco, Federico Ivan, Guarneri Antonio, **Rubio Anna**, et al. EuroGOOS roadmap for operational coastal downstream services. *Frontiers in Marine Science*, 10, 2023, doi=10.3389/fmars.2023.1177615.
6. Lorente, P., **Rubio, A.**, Reyes, E., Solabarrieta, L., Piedracoba, S., Tintoré, J., and Mader, J.: High-frequency radar-derived coastal upwelling index, in: 7th edition of the Copernicus Ocean State Report (OSR7), edited by: von Schuckmann, K., Moreira, L., Le Traon, P.-Y., Grégoire, M., Marcos, M., Staneva, J., Brasseur, P., Garric, G., Lionello, P., Karstensen, J., and Neukermans, G., Copernicus Publications, State Planet, 1-osr7, 8, <https://doi.org/10.5194/sp-1-osr7-8-2023>, 2023.
7. L. Solabarrieta, del Campo, Andrea, Alvarez, D., Abalia, A., Nieto, A., Epelde, I., de Santiago, I., Zubiaur, I., Ferrer, L., Manso, I., Saez, I., Garnier, R., González, M., **Rubio, A.** et al. Revamping data system and portal in the Basque Operational Oceanography, 2022 IEEE International Workshop on Metrology for the Sea; Learning to Measure Sea Health Parameters (MetroSea), Milazzo, Italy, 2022, pp. 193-197, doi: 10.1109/MetroSea55331.2022.9950947.
8. García-Barón, I., Igor Granado, Amaia Astarloa, Guillermo Boyra, **Anna Rubio**, et al. Ecological risk assessment of a pelagic seabird species in artisanal tuna fisheries, *ICES Journal of Marine Science*, Volume 80, Issue 9, November 2023, Pages 2441–2454, <https://doi.org/10.1093/icesjms/fsac136>
9. Ruiz, I., **Rubio, A.**, Abascal, A. J., and Basurko, O. C.: Modelling floating riverine litter in the south-eastern Bay of Biscay: a regional distribution from a seasonal perspective, *Ocean Sci.*, 18, 1703–1724, <https://doi.org/10.5194/os-18-1703-2022>, 2022.
10. Ruiz I., Abascal, A., Basurko, O.C., **Rubio, A.** Modelling the distribution of fishing-related floating marine litter within the Bay of Biscay and its marine protected areas, *Environmental Pollution*, 292, Part A, 2022, 118216, doi:10.1016/j.envpol.2021.118216.
11. Davila, X., **Rubio, A.**, Artigas, L. F., Puillat, I., Manso-Narvarte, I., Lazure, P., and Caballero, A.: Coastal submesoscale processes and their effect on phytoplankton distribution in the southeastern Bay of Biscay, *Ocean Sci.*, 17, 849–870, <https://doi.org/10.5194/os-17-849-2021>, 2021.
12. Solabarrieta, L., Hernández-Carrasco, I., **Rubio, A.**, Campbell, M., Esnaola, G., Mader, J., Jones, B. H., and Orfila, A.: A new Lagrangian-based short-term prediction methodology for high-frequency (HF) radar currents, *Ocean Sci.*, 17, 755–768, <https://doi.org/10.5194/os-17-755-2021>, 2021
13. Révelard A., Reyes E., Mourre B., Hernández-Carrasco I., **Rubio A.**, Lorente P., Fernández C.D.L., Mader J., Álvarez-Fanjul E., Tintoré J. Sensitivity of Skill Score Metric to Validate Lagrangian Simulations in Coastal Areas: Recommendations for Search and Rescue Applications, *Frontiers in Marine Science*, 8, 2021, doi:10.3389/fmars.2021.630388
14. Caballero A., Mulet S., Ayoub N., Manso-Narvarte I., Davila X., Boone C., Toubanc F., **Rubio A.** Integration of HF Radar Observations for an Enhanced Coastal Mean Dynamic Topography. *Frontiers in Marine Science*, 7, 2020, doi : 10.3389/fmars.2020.588713
15. Cózar, A., Stefano, A., Basurko, O. C., Arias, M., Isobe, A., Topouzelis, K., **Rubio, A.**, Morales-Caselles, C. Marine Litter Windrows: A Strategic Target to Understand and Manage the Ocean Plastic Pollution, *Frontiers in Marine Science*, 8, 2021, doi:10.3389/fmars.2021.571796
16. Manso-Narvarte, I.; **Rubio, A.**; Jordà, G.; Carpenter, J.; Merkelbach, L.; Caballero, A. Three-Dimensional Characterization of a Coastal Mode-Water Eddy from Multiplatform Observations and a Data Reconstruction Method. *Remote Sens.* 2021, 13, 674. <https://doi.org/10.3390/rs13040674>
17. **Rubio, A.**, Hernández-Carrasco, I., Orfila, A., González, M., Reyes, E., Corgnati, L., Berta, M., Griffa, A., and Mader, J.: 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, S1-S172, DOI: 10.1080/1755876X.2020.1785097
18. Emma Reyes, Ismael Hernández-Carrasco, Adèle Révelard, Baptiste Mourre, Paz Rotllán, Eric Comerma, Tayebeh Tajalli Bakhsh, **Anna Rubio**, Julien Mader, Luis Ferrer, Christian De Lera Fernández, Enrique Álvarez-Fanjul and Joaquín Tintoré. 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, S1-S172, DOI: 10.1080/1755876X.2020.1785097

<p>Participation in research projects, selected (last 10 years)</p>	<ul style="list-style-type: none"> ➤ OSTREOBILA- Desarrollo de herramientas de ayuda a la decisión para luchar contra las microalgas tóxicas <i>Ostreopsis</i> spp. PI: Communauté d'Agglomération Pays Basque. Responsable de tarea. INTERREG V-A Espagne-France-Andorre POCTEFA (2021-2027). 01/01/2024-31/12/2026. ➤ PASAIA SMART BAY – OARSOALDEA BLUE-HUB – Desarrollo de una Smart Bay para la provisión de servicios de oceanografía operacional innovadores y de valor añadido en el marco de la Economía Azul. Eusko Jaurlaritzza - Gobierno Vasco, Dpto. Agricultura, Pesca y Alimentación, Viceconsejería de Política e Industria Alimentaria, Dirección de Innovación y Desarrollo Tecnológico. PI: AZTI (2022-2024) ➤ EBEGI - Super Observatorio Piloto del Golfo de Vizcaya, un observatorio integral ecosistémico y multiplataforma. 2022-2027. GOBIERNO VASCO - Departamento de Desarrollo Económico, Sostenibilidad y Medio Ambiente - Viceconsejería de Agricultura, Pesca y Políticas Alimentarias. https://ebegi.azti.es/?lang=en ➤ LAMARCA-OMO, Lagrangian transport of marine litter and microplastics in coastal waters: observation and monitoring in the Bay of Biscay and Balearic Sea coastal areas. PI subproyecto coordinado: Anna Rubio. Ministerio de ciencia e innovación, Proyectos de Generación de Conocimiento 2021, 09/2022-09/2026. ➤ FORCOAST, Earth Observation Services for Fishery, Bivalves ariculture and Oysterground Restoration along European Coasts. H2020-SPACE-2019 (Topic DT-SPACE-01-EO-2018-2020). PI: Deltares. Leading WP2: Users requirements and contribute to Bay of Biscay Pilot. 01/11/2019 -30/04/2022 ➤ SUSTUNTECH, Sustainable tuna fisheries through advanced earth observation tools. 2020-2023. H2020-SC5-2019-2. 2020-2023 ➤ JERICO-S3, Joint European Research Infrastructure of Coastal Observatories: Science, Service, Sustainability. H2020- INFRAIA-01-2019. Grant agreement No 871153. Leading Work package (WP1) on Innovative monitoring strategy and Design of the System. 2020-2023. ➤ EUROSEA, Improving and Integrating European Ocean Observing and Forecasting Systems for Sustainable use of the Oceans. H2020 BG-07-2019-[B]. Grant agreement No 862626. 2019-2022. ➤ INSTAC - In-situ Thematic Assembly Center main operations. MERCATOR OCEAN, 01/2018 -10/2021, PI: S. Pouliquen (IFREMER, FRANCE) ➤ INCREASE - Innovation and Networking for the integration of Coastal Radars into EuropeAn marine Services. MERCATOR OCEAN (21-SE-CALL1), 03/2016- 03/2018. PI: J. MADER (AZTI) ➤ COMBAT - COMBination of ATimetry and HFR data into new multiobservation CMEMS products. MERCATOR OCEAN, 03/2018-03/019. PI: A. CABALLERO (AZTI) ➤ IBISAR - Skill assessment service for real-time met-ocean data product ranking in the IBI area for emergency and SAR operators. MERCATOR OCEAN (call 67-UU-DO-CMEMS-DEM4), 05/2018- 12/2019, IP: SOCIB ➤ MyCoast & MyCoast_ext: A Coordinated Atlantic Coastal Operational Oceanographic Observatory. Interreg Atlantic Area, 2017-2023. PI: Julien Mader AZTI ➤ LIFE LEMA: Intelligent marine Litter removal and Management for local Authorities LIFE15 ENV/ES/000252, 2016-2019. PI: Diputación Foral de Gipuzkoa. ➤ JERICO_NEXT: Joint European Research Infrastructure network for Coastal Observatory – Novel European eXpertise for coastal observaTories. H2020 INFRAIA, 09/2015 – 09/2019. A. Rubio leading JRAP4 in WP4. PI: P. Farcy IFREMER ➤ MESOANCHOA: Impacto de remolinos oceánicos MESOescalares en la distribución, abundancia y crecimiento de la ANCHOA europea (<i>Engraulis encrasicolus</i>). Ministerio de Ciencia e Innovación. Plan Nacional I+D+i (CTM2013-45423-R), 01/01/2014- 31/12/2016. PI:
<p>Project evaluation, peer-review and editorial experience</p>	<p>Research project, grants evaluation: Agencia Nacional de Evaluación y Prospectiva, since 2011 (>25 evaluations)</p> <p>Peer-review: Ocean Science (2013), Scientia Marina (2011), Journal of Marine Systems (2008, 2010), Progress in Oceanography (2008), Chapter in ELSEVIER Book: Coastal Ocean Observing Systems: Advances and Syntheses (2014), Continental Shelf Research (2015,2016), Journal of Geophysical Research (2017), Remote Sensing of Environment (2017, 2018), Frontiers in Marine Science (2019,2020), Ocean Dynamics (2020) Chapter in Springer Handbook of Atmospheric Measurements (2019)</p> <p>Topic editor in Ocean Science (since 2019) and Frontiers in Marine Science (since 2020)</p>
<p>Participation in Working Groups</p>	<p>EuroGOOS Coastal Working Group (since 2018, co-chair between 2018-2023)</p> <p>EuroGOOS HFR Task Team (since 2015)</p> <p>GEO Global HF radar Component (Since 2013)</p> <p>IBERORED – HFR (Since 2010)</p>
<p>Participation in oceanographic surveys (selected)</p>	<p>XIXILI glider mission Test deployment July 2022 (Ekocean Explorer, Bay of Biscay)</p> <p>BOBLITO mission Drifters and ADCP deployment May 2022 (Ekocean Explorer, Bay of Biscay)</p> <p>ETOILE survey July-August 2017 (Thetis IFREMER, Bay of Biscay).</p> <p>Macro litter coastal surveys (Itsas Belharra, Pyrénées-Atlantiques, France)</p> <p>BBTRANS and GESSEB glider missions 2018 and 2013 (Ekocean Explorer, Bay of Biscay).</p>
<p>Teaching Tutoring & Participation in PHD committees</p>	<p>Master Courses in MASTER MER since 2010</p> <p>Supervised 7 successful MsC students</p> <p>Supervised 3 successful PhD students, currently supervising 1 PhD students</p> <p>Participated in >10 PhD committees and MsC evaluation panels</p>