

CURRICULUM VITAE ABREVIADO (CVA)

AVISO IMPORTANTE – El *Curriculum Vitae* abreviado **no podrá exceder de 5 páginas**. Para rellenar correctamente este documento, lea detenidamente las instrucciones disponibles en la web de la convocatoria.

IMPORTANT – The *Curriculum Vitae* **cannot exceed 5 pages**. Instructions to fill this document are available in the website.

Date of the CVA 21 / 05 / 2026

Part A. Personal information

Given name	Asunción		
Surname	Baquerizo Azofra		
Sex (*)	Mujer	Birth date (dd/mm/yyyy)	
DNI, NIE, passport			
Email address		URL Web	
Open Researcher and Contributor ID (ORCID) (*)	G-9767-2015	0000-0002-3339-0653	

A.1. Current Professional Situation

Position	Full professor		
Start date	18/12/2009		
Organization/Institution	University of Granada (UGR)		
Departament/ Centre	Structural Mechanics and Hydraulic Engineering Andalusian Institute for Earth System Research		
Country	Granada	Teléfono	
Key words	Coastal hydromorphodynamics, reliability and risk in maritime engineering		

A.2. Previous Professional and Scientific Activities

Dates	Position/ Institution/ Country
2003-2009	Associate Professor. UGR
2000-2003	Full-time Associate Lecturer. UGR
2000	Research Associate. Marie Curie Fellowship of the European Commission, Human Potential Program, Directorate-General XII. <i>UGR</i>
1999	Research Associate. Fellowship of the Reintegration of Doctors Abroad Program, Ministry of Education and Science
1999	Research Associate. Fellowship of the Reintegration of Doctors Abroad Program, University of Granada Internal Program
1997-1999	Research Associate. Marie Curie Fellow of the European Commission, TMR Program. Delft University of Technology.
1991-1997	Several doctoral fellowships at the UC (Associated to a EU research Project, Torres Quevedo Foundation, UC program)
1990-1991	Incoming internship student. <i>Labein</i>

A.3. Academic education

Grado/Master/Tesis	Universidad/Pais	Año
Lic. en Ciencias Matemáticas	University of the Basque Country	1991
Dra. en Ciencias del Mar	University of Cantabria	1995

Part B. CV SUMMARY (max. 5,000 characters, including spaces): VERY IMPORTANT: the content of this section has been modified to bring it into line with DORA principles.

A. Baquerizo has a background in Mathematics with a specialization in numerical analysis. She completed her PhD in Marine Sciences at the University of Cantabria (UC, Spain), which was recognized with an *Outstanding Doctorate Award*. She carried out a postdoctoral stay (1997–1999) at Delft University of Technology with a Marie Curie grant under the Training and Mobility of Researchers programme. She later received several fellowships to return to Spain, among them another Marie Curie grant (Human Potential programme, 2000). She is currently a Full Professor at the University of Granada, where she conducts research in the Environmental Fluid Dynamics Group (EFDG). She holds five six-year research assessment periods.

After her PhD, her research focused on coastal hydro-morphodynamics and risk and reliability in coastal and maritime engineering. Her participation in the EU project HUMOR (EVK3-CT-2000-00037; PI: M. A. Losada; 2001–2003), involving 15 institutions coordinated by UGR, was a milestone in her career. Within that project, she led one of the work packages, focusing on the assessment of uncertainty in coastal morphological evolution. This work contributed, among other outcomes, to the doctoral thesis of A. Payo (2004).

Two research lines were established in the EFDG following this approach. Some of the related projects/contracts (R), publications (P), and theses (T) are listed below:

Integral management of coastal zone infrastructures with probabilistic techniques

- R: *Flooding and erosion studies in coastal areas of Andalusia under a climate change scenario*. Ministry of Agriculture, Livestock, Fisheries, and Sustainable Development. Directorate General for Environmental Quality and Climate Change. File CONTR 2018 66984. 2019–2023. €235,218.86. PI: [A. Baquerizo](#).
- P: Cobos, M., [A. Baquerizo](#), M. Díez-Minguito, and M. A. Losada (2020). *A subtidal box model based on the longitudinal anomaly of potential energy for narrow estuaries: An application to the Guadalquivir river estuary (SW Spain)*. *Journal of Geophysical Research: Oceans*, 125, e2019JC015242.
- T: M. Cobos Budia (2020). *A model to study the consequences of human actions in the Guadalquivir river estuary*. International Doctorate. Recognized with an *Outstanding Doctorate Award* and with the *UNIA Digital Award*

Optimal design of coastal structures

- R: *The combined method of failure probabilities–safety factors with sensitivity analysis. Applications in civil engineering*. DPI2002-04172-C04-04. PI: [A. Baquerizo](#) (Coordinator: E. Castillo, UC). 2002–2005.
- P: Castillo, E., M. A. Losada, R. Mínguez, C. Castillo, and [A. Baquerizo](#) (2004). *Optimal Engineering Design Method that Combines Safety Factors and Failure Probabilities: Application to Rubblemound Breakwaters*. *Journal of Waterway, Port, Coastal, and Ocean Engineering* (ASCE), 130(2), 77–88.
- T: L. Jalón (2016). *Optimal design of an OWC system and its management at different time scales*.

These research lines laid the groundwork for the EPICOS project, focused on the prospective assessment at climate scales of the morpho-hydrodynamic state of estuarine systems in search of opportunities for sustainability (P21_00375, PIs: [A. Baquerizo](#) and M. Díez-Minguito), and for the AQUACLEW-UGR project (PCIN-2017-116, PI: [A. Baquerizo](#)), where climate projections were used to study coastal impacts in a deltaic system. Around the same time, she led a team that won three public contracts from the Andalusian government (ICCOAST I and II, and REICCA). These projects funded several researchers at different stages of their academic careers, including postdoctoral researchers, doctoral researchers, and graduate students. All this research is application-oriented and has been developed within the framework of MSc and PhD theses. The students she supervised now hold academic and non-academic positions where they continue to work on topics related to their research, including institutions such as the East Anglia Hub, PROES, the British Geological Survey, the University of Genoa, and the University of Granada.

She is also deeply involved in teaching, mainly at the postgraduate level, within the Master's programs in Structures and Environmental Hydraulics, which feed into the PhD program in Biogeochemical Fluid Dynamics and its Applications, in which she also participates.

Her commitment to academia is further reflected in her managerial roles, serving from 2013 to 2019 —the last four years as Director for Master's Programs and UGR-specific Degrees at the University of Granada. She is a member of the editorial boards of several JCR-indexed journals, including *Scientific Reports* (Springer), and a regular reviewer for ANEP (National Agency for the Evaluation of Research and Higher Education) as well as for leading journals in her field.

Part C. LIST OF MOST RELEVANT CONTRIBUTIONS

C.1. Most important publications in peer-reviewed books and journals and conferences.

- Otiñar P, Cobos M, Santana M and Baquerizo A (2025). Statistical characterization of projected flooding and erosion processes for coastal management. *Front. Mar. Sci.* 12:1631047. doi: 10.3389/fmars.2025.1631047
- Otiñar P, Cobos M, Santana M, Millares A and Baquerizo A (2025). A probabilistic methodology for the projection of flooding and erosion processes in the coastal zones of Andalusia (Spain) throughout the 21st century. *Front. Mar. Sci.* 12:1631041. doi: 10.3389/fmars.2025.1631041
- Cantalejo M, Cobos M, Millares A, Baquerizo A. (2024). A non-stationary bias adjustment method for improving the inter-annual variability and persistence of projected precipitation. *Sci Rep.* 2024 Oct 29;14(1):25923. doi: 10.1038/s41598-024-76848-2.
- Lira Loarca, A., P. Berg, A. Baquerizo and G. Besio (2023). On the role of wave climate temporal variability in bias correction of GCM-RCM wave simulations. *Clim Dyn.* <https://doi.org/10.1007/s00382-023-06756-0>
- Cobos, M., P. Otiñar, P. Magaña & A. Baquerizo (2022). A Method to Characterize Climate, Earth or Environmental Vector Random Processes. *Stochastic Environmental Research and Risk Assessment.* <https://doi.org/10.1007/s00477-022-02260-9>.
- Cobos, M., P. Otiñar, P. Magaña, A. Lira-Loarca & A. Baquerizo (2022). *MarineTools.temporal: A Python package to simulate Earth and environmental time series, Environmental Modelling & Software, Volume 150, 2022,105359.*
- Lira-Loarca, M. Cobos, G. Besio, A. Baquerizo (2021). Projected wave climate temporal variability due to climate change. *Stochastic Environmental Research and Risk Assessment.* <https://doi.org/10.1007/s00477-020-01946-2>.
- Cobos, M., A. Baquerizo, M. Díez-Minguito and M.A. Losada (2020). A subtidal box model based on the longitudinal anomaly of potential energy for narrow estuaries. An application to the Guadalquivir river estuary (SW Spain). *Journal of Geophysical Research: Oceans*, 125, e2019JC015242.
- Lira-Loarca, M. Cobos, M.A. Losada, A. Baquerizo (2020). Storm characterization and simulation for damage evolution models of maritime structures. *Coastal Engineering* Vol. 156, pp 103620.
- Jalón, M. L., A. Lira-Loarca, A. Baquerizo, M. A. Losada (2019). An analytical model for oblique wave interaction with a partially reflective harbor structure. *Coastal Engineering*.143, 38-49. doi.org/10.1016/j.coastaleng.2018.10.015
- García-Morales R., A. Baquerizo and M.A. Losada (2015). Port management and multiple-criteria decision making under uncertainty. *Ocean Engineering*, Vol. 104,31-39 doi: 10.1016/j.oceaneng.2015.05.007.
- Díez-Minguito, M., A. Baquerizo, H. E. de Swart, and M. A. Losada (2014). Structure of the turbidity field in the Guadalquivir estuary: Analysis of observations and a box model approach. *J. Geophys. Res. Oceans*, 119, 7190–7204, doi:10.1002/2014JC010210.
- López-Ruiz A, M. Ortega-Sánchez M, A. Baquerizo and M.A. Losada (2014). A note on alongshore sediment transport on weakly curvilinear coasts and its implications. *Coastal Engineering*, 88 (2014) 143–153. doi: 10.1016/j.coastaleng.2014.03.001.

- Reyes, M. A., M. Díez-Minguito, M. Ortega-Sánchez, A. Baquerizo and M. A. Losada (2013). On the relative influence of climate forcing agents on the saline intrusion in a well-mixed estuary: Medium-term Monte Carlo predictions. *Journal of Coastal Research*. Special issue 65, pp. 1200-1205.
- Félix, A., A. Baquerizo, J. M. Santiago and M. A. Losada (2012). Coastal zone management with stochastic multi-criteria analysis. *Journal of Environmental Management* 112, pp. 252-266.
- Díez-Minguito, M., A. Baquerizo, M. Ortega-Sánchez, G. Navarro y M.A. Losada (2011). Tide transformation in the Guadalquivir estuary (SW Spain) and process-based zonation. *J. Geophys. Res.*, Vol. 117, C03019, 14 pp. doi:10.1029/2011JC007344.

C.2. Conferences

- Otiñar, P., M. Silva, M. Cobos, P. Magaña, A. Millares, D. Gutiérrez, J. Martín, A. Lira-Loarca, A. Baquerizo (2024). Projections of flooding and erosion in coastal zones of Andalucía (Spain) for the XXI Century: a probabilistic approach. ICCE'2024, Roma, 8-14/09/2024.
- Silva, M., P. Otiñar, M. Cobos, P. Magaña, A. Millares, D. Gutiérrez, J. Martín, A. Lira-Loarca, A. Baquerizo (2024). Probabilistic study of flooding and erosion processes in coastal zones of Andalucía (Spain) for the XXI century. IAHR Europe 2024, Lisboa, 4-7/07/2024
- Otiñar, P., M. Cobos, M. Silva, P. Magaña, A. Millares, A. Lira-Loarca, A. Baquerizo (2022). Floods uncertainty assessment in Mediterranean coastal areas of Andalucía (Spain). V Congreso Transfronterizo sobre Cambio Climático y Litoral (UHINAK), Noviembre de 2022.
- Cobos, M., A. Payo, D. Favis-Mortlock, H. F. Burke, D. Morgan, G. Jenkins, H. Smith, T. J. Fletcher, P. Otiñar, P. Magaña, A. Baquerizo (2022). Importance of Shallow Subsurface and Built Environment Characterization on Assessing Coastal Landscape Morphological Evolution from Hours to Decadal Time Scales: Application to Complex Landforms along Andalucía (Spain) Coastline. IAHR World Congress, Junio de 2022, Granada.
- Cobos, M., P. Magaña, P. Otiñar, A. Baquerizo (2022). Parametric characterization of wave climate along the Andalusian coast for non-stationary stochastic simulation. IAHR World Congress, Junio de 2022, Granada.
- Baquerizo, A., P. Otiñar, P. Magaña, A. Millares, A. Lira-Loarca and M. Cobos (2022). Floods uncertainty assessment in Mediterranean coastal areas of Andalucía (Spain). IAHR World Congress, Junio de 2022, Granada.
- Lira-Loarca, A., M. Cobos, A. Millares, G. Besio, A. Baquerizo. *Integrated extreme sea level events in the Mediterranean coast of Spain*. EGU General Assembly. 2020. Austria.
- Cantalejo, M., M. Cobos, A. Millares, J. A. Pérez Luque, R.M. Mateos & A. Baquerizo (2022). Regionalization of Meteorological Forcings from Climate Change Scenarios in a Semi-Arid High Mountainous Basin. Impacts on Hydrological Modelling. 39th IAHR World Congress. Granada. 19-20 de junio de 2022.
- Otiñar, P., M. Silva, M. Cobos, P. Magaña & A. Baquerizo (2022). Spatio-temporal dynamics assessment of coastlines based on remote sensing data. 39th IAHR World Congress. Granada. 19-20 de junio de 2022.

C.3. Research projects

- EPICOS. P21_00375. Evaluación prospectiva a escalas climáticas del estado morfo-hidrodinámico de sistemas estuarinos: oportunidades de sostenibilidad (EPICOS). Proyectos I+D+i Junta de Andalucía 2021. IPs: M. Díez Minguito, A. Baquerizo. 02/12/2022- 31/12/2025. 139.380 €
- BARRIER. PID2023-148298OA-I00. Building analysis capacity to improve resilience of the Guadalquivir River Estuary. Proyectos de Generación de Conocimiento. Ministerio de Ciencia, Innovación y Universidades. Convocatoria 2023. IP: M. Cobos. 01/09/2024-31/08/2027. 153.750,00 €.

- MAPHRE2025. From DANA to Decision: Integrating Local Data and Models for Flood Cost Estimation and Public Strategic Decision-Making. Ayudas a la Investigación Ignacio H. de Larramendi. IP: M. Cobos Budia. 15/01/2026-15/01/2026. 15.000,00 €.
- ARCA. B-TEP-110-UGR20. *Predicción y variabilidad estocástica del dominio público marítimo terrestre para la evaluación de riesgos de inundación y erosión del litoral andaluz ante el cambio climático*. Junta de Andalucía. Proyectos I+D+i del Programa Operativo FEDER 2020. IPs: A. Baquerizo, M Bermúdez. 01/07/2021-30/06/2023. 45.000,00 €
- AQUACLEW. PCIN-2017-116, *Advancing quality of climate services for fluvial & coastal processes in Europe/Advancing QUALity of CLimate services for European Water*, ERA-NET (ERA4CS) - APCIN. IP: A. Baquerizo. 2017-2020. 96.000€.
- RISKCOAST. *Desarrollo de herramientas para prevenir y gestionar los riesgos geológicos en la costa ligados al cambio climático*. Ref. SOE3/P4/E0868. Fondo de Desarrollo Regional (FEDER) de la Unión Europea. Programa Interreg SUDOE. IP: Jorge Pedro Galve Arnedo. Entidades participantes: Universidad de Granada, CTTC, BRGM (Francia), CEREMA (Francia), Asitec, IGOT (Lisboa), IGME (España). 01/10/2019–30/09/2022. 240.000 €.

C.4. Participation in technology/knowledge transfer activities and exploitation of results

- Trabajos para el estudio de inundación y erosión en zonas costeras de Andalucía en un escenario de cambio climático. Provincias de Granada y Almería. Consejería de Agricultura, Ganadería, Pesca y Desarrollo Sostenible. DG de Calidad Ambiental y Cambio Climático. Exp. CONTR 2020/687686. IP: A. Baquerizo. 13/07/2021-31/10/2023. 244.280,20 €
- Gestión del riesgo asociado a la erosión e inundación en un escenario de cambio climático y la toma de decisiones sobre concesiones en el dominio público marítimo-terrestre. Fase I. Consejería de Agricultura, Ganadería, Pesca y Desarrollo Sostenible. DG de Calidad Ambiental y Cambio Climático. Expediente CONTR. 2020/194906. IP: A. Baquerizo. 05/03/2021-31/10/2023. 146.550,02 €
- Trabajos de inundación y erosión en zonas costeras de Andalucía en un escenario de cambio climático. Consejería de Agricultura, Ganadería, Pesca y Desarrollo Sostenible. DG de Calidad Ambiental y Cambio Climático. Expediente CONTR 2018 66984. IP: A. Baquerizo. 16/12/2019-31/10/2023. 235.218,86 €.
- Desarrollo de una herramienta de simulación integral de la actividad portuaria basada en métodos probabilísticos Empresa adjudicataria: Proes Consultores SA y FCC Industrial e Infraestructuras Energéticas, SAU en UTE. Autoridad Portuaria de Bahía de Algeciras. IP (UGR): IP: A. Baquerizo. Desde 06/04/2015. 125.000 €.

C.5. Intellectual property

- Cobos, M, P Otíñar, P Magaña, A Lira, A. Baquerizo (2021). *Marinetools.temporal* <https://github.com/gdfa-ugr/marin>. Propiedad industrial Github. Titular: GDFA. 26/07/2021.
- Millares, A, A Baquerizo, P Magaña, M Ortega, M. Díez Minguito, A. Moñino. GR-00068-2018. *HEMINGS*. Herramienta para el modelado de procesos erosivos en laderas. 16/02/2018.
- M. Clavero, P. Magaña, M. Cobos, A. Baquerizo, M. Ortega. GR-284-17. *FLUME*: Formación y evoLUción de forMas de IEcho España. 26/07/2017.
- C. Zarzuelo, A. López Ruiz, P. Magaña, M. Díez Minguito, A. Baquerizo, M. Ortega. GR-210-16. *HADIO*: Herramienta para el análisis de datos de instrumentos España. 01/06/2016.
- A. Lira Loarca, P. Magaña, M. Cobos, A. Baquerizo, M. Losada. GR-119-16. *CORPORA*: Herramientas para el Cálculo de OpeRatividad PORtuariA España. 25/05/2016.