MINISTERIO DE CIENCIA E INNOVACIÓN

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

CURRICULUM VITAE (CVA)

Part A. PERSONAL INFORMATION

CV date	21/01/2025

First name	Fernando		
Family name	Bohoyo Muñoz		
e-mail	f.bohoyo@igme.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-1044-8816	

(*) Mandatory

A.1. Current position

Position	Jefe de Área (nivel 28) - Escala de Investigadores Científicos***		
Initial date	12/07/2017		
Institution	Centro Nacional Instituto Geológico y Minero de España (CSIC)		
Department/Center	Geología y Subsuelo	Grupo de investigación de Geofísica y Geología del Subsuelo (GEOFSUB)	
Country	Spain	Teleph.	+34917287271
Key words	Geophysics, Tectonics, Marine Geology, Geo-modelling, Basin Analysis, continental fragmentation, Paleoceanography, **Antarctica**.		

A.2. Previous positions (research activity interuptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
1/10/98-1/06/99	Becario de Colaboración M.E.C. Universidad de Granada
1/6/00-1/6/04	Becario Predoctoral F.P.I. – MCYT. IACT (CSIC- UGR)
09/08/04-30/04/05	Assistant geophysical data processing. British Antarctic Survey BAS (NERC) Cambridge, United Kingdom.
01/05/05-27/12/05	Becario Postdoctoral del M.E.C. in BAS (NERC)-UK.
27/12/05-25/12/2008	Titulado Superior de Investigación. IGME. Madrid.
01/10/09-30/09/2010	Profesor Asociado de Universidad. UAM. Madrid
19/11/08-present	Científico Titular OPIs. CN IGME (CSIC). Madrid.
12/07/2017-present	**Jefe de Área Nivel 28. CN IGME (CSIC). Madrid**
21/01/2021-17/07/2021	Director Adjunto Nivel 29. CN IGME (CSIC), Madrid.
01/10/2021-present	**Gestor** del Programa **Polar** Nacional (Coordinador Subárea CTM-POL). Agencia Estatal de Investigación – MICINN
Aprobado el 08/11/2024* **	**Investigador Científico OPIs. CN IGME (CSIC). Madrid**.

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licensed in Geological Sc.	University of Granada-Spain	01/07/1999
PhD in Earth Sciences	University of Granada-Spain	20/07/2004

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

Dr. Fernando Bohoyo Muñoz, PhD in Earth Sciences from the University of Granada (Spain) in 2004, is currently a tenured scientist at the Geological Survey of Spain (CN IGME-CSIC), where he is developing his research work in the fields of Tectonics, Applied Geophysics and Marine Geology. Mainly focused on the integral study of the geodynamic evolution of the Scotia Arc (Antarctica), which includes Tierra del Fuego, Scotia Sea and Antarctic Peninsula and islands, through the planning, acquisition, treatment, modeling and interpretation of geophysical data (multichannel, single-channel and high resolution Seismics, electric methods, Gravity and Magnetics, Bathymetry and Magnetotellurics), petrological and structural geology data. Other areas of research include the study of the Iberian Margin and the Betic Cordillera. He participates in 29 research projects both from the National Plan and from Europe, led 6, in Antarctica: BATDRAKE; TIFUMATE; TASMANDRAKE, TASDRACC and TEMPERATE (until 2027) and in Spanish Continental Margin, SEASTORAGE (2022-26). Participates in 18 technical contracts and IGME projects,

and led 3 of them (SEGYBAS (national multichannel seismic database), 3DCCVC (3D Basque Cantabrian Basin and Range) and GEO2SUB3D (3D Geological Modelling). Accredited experience in the acquisition of different geological and geophysical data through the participation, 16, and led, 5 of them, long-term Marine Geophysics campaigns on different vessels and 23 years of on land geophysical data acquisition and structural geology campaigns (Betic Cordillera, Iberian Massif, Tierra del Fuego, Tasmania and Antarctica). He was co-proponent of the IODP 902-full proposal: “Late Neogene reconstruction of ice-sheet, atmosphere, and ocean dynamics in Iceberg Alley” in the Scotia Sea (Antarctica) (approved 24/05/2017) with successful drilling (03/04-2019).

Head of the Subsurface Geology and 3D Geological Modeling of the IGME (07/2017 to 2022) manages the scientific activities and projects of a group of up to 14. He was Deputy Director of the Department of Geological Resources from 01/2021 to 08/2021 developing scientific management tasks and the transition to CSIC. Recently, he formed and led the new Subsurface Geophysics and Geology Research Group with 20 researches and technicians since the beginning, 29/11/2021 to 22/04/2024. He co-lead the international team on Antarctic research TASMANDRAKE (@tasmandrake).

The research experience, availed by 3 six-year and 4 five-year merit period, is summarized in more than 410 scientific contributions: 59 indexed international articles (60 SCI journal (38 Q1 and 12 Q2) and 11 book chapters); 1 book; 2 book chapters, 170 international meetings; 33 national publications; 68 national meetings; 45 bathymetric, geophysical and geological maps and 21 scientific-technical reports (Continental shelf extension, Evaluation of CO2 storage sites, oceanographic reports, Castor seismicity crisis, among others). Lectures at UPM Madrid, MNCN-CSIC, CADIC-Argentine, BAS-UK, REPSOL and the Ministry of Infrastructure of Aruba among others. Senior delegate in Spain of the Antarctic Seismic Data Library System (SDLS) SCAR since 2008. Member of the Editorial Board of the International Bathymetric Chart of the Southern Ocean (IBCSO) SCAR and member of the Southern Ocean Regional Mapping Committee (SO-RMC) (GEBCO). Member of the Standing Scientific Group on Geosciences of the Spanish National SCAR Committee (07/2021-07/2022). **President of the Applied Geophysics Section of the National Geodesy and Geophysics Commission** since December 2024 (member since march 2021). Member of the IGME Scientific Advisory Committee from 2020 to 2021, participating in the Strategic Plan 2021-2024 drafting. Reviewer of prestigious scientific journals such as The Geological Society of America Bulletin (since 2005), Geological Society of London (since 2012), Global and Planetary Change (since 2013), Journal of South American Earth Sciences (since 2016) and International Journal of Earth Sciences (since 2016) among others. He enjoyed predoctoral and postdoctoral research stays abroad (3 years): British Antarctic Survey-UK (24 months 2000 and 2004-2006); Free University of Amsterdam 2002 and CADIC-Ushuaia, Argentina 2012. He has University teaching experience at University of Granada (2002-03 and 2003-04) and as Associated Professor at Autonomous University of Madrid (2009-2010). Training of students in UCM-Madrid internships since 2010, 1 supervised TFM (2020) and 2 supervised Doctoral Thesis (march-2024 and 1 in progress). Supervision of 3 technicians I+D since 2016.

At present, **Scientific manager of the National Polar Program of the AEI** (Gestor del Subárea Polar CTM-POL de la Agencia Estatal de Investigación) since October 2021 with evaluation, coordination and justification tasks of research projects and HR calls, national and international representation in different committees (Spanish Polar Committee, COCSABO, European Polar Board as alternative national representing, among others), as well as the coordination and scientific preparation of the National Antarctic Campaigns: 2021-22/2022-23/2023-24/2024-25. He is evaluator of the ANEP and panels of the National Research Agency since 2018 (National Plan, JdC Grants, PTAs, Infrastructure etc) more

than 80 evaluations. Internationally he evaluated for Perú, Argentina, Uruguay and Europe Antarctic programs.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications *-(International selection in Antarctica)*

1). C. Morales, **F. Bohoyo** (2/8), C. Escutia, C. Marin-Lechado, C. Rey-Moral, M. Druet, J. Galindo-Zaldívar, A. Maestro (2023). 3D Geophysical and Geological Modeling of the South Orkney Microcontinent (Antarctica): Tectonic Implications for the Scotia Arc Development. *Tectonics.* V.42(4).DOI: https://doi.org/10.1029/2022TC007602. IF: 5.261 Quartile: Q1

2). L. F. Pérez, Y. M. Martos, M. García, M. E. Weber, M. E. Raymo, T. Williams, **F. Bohoyo (7/24)**,… X. Zheng (2020) Miocene to present oceanographic variability in the Scotia Sea and Antarctic ice sheets dynamics: Insight from revised seismic-stratigraphy following IODP Expedition 382. *Earth and Planetary Science Letters*. V.553. DOI: 10.1016/j.epsl.2020.116657. IF: 5.255 Quartile: Q1

3). **Bohoyo, F. (1/18)**, Larter, R.D., Galindo-Zaldívar, …, Riley, T.R. (2019) Morphological and geological features of Drake Passage, Antarctica, from a new digital bathymetric model. Journal of Maps, 15 (2), pp. 49-59. >9600 downloads and 324 Geotiff downloads. Top 9 of Journal of Maps. IF: 2.365 Quartile: Q2

4). L. González-Castillo, **F. Bohoyo (2/11)**, .., P. Ruano. (2019)Mantle flow and deep electrical anisotropy in a main gateway: MT study in Tierra del Fuego. *Scientific reports (Nature Publishing Group)* V.: 9 (1) 1-6 10.1038/s41598-019-43763-w IF: 3.998.Quartile: Q1

5). L. F. Pérez, F. J. Hernández-Molina, E. Lodolo, **F. Bohoyo**, J. Galindo-Zaldívar, A. Maldonado (2019) Oceanographic and climatic consequences of the tectonic evolution of the southern scotia sea basins, Antarctica. *Earth-Science Reviews*. DOI: 10.1016/j.earscirev.2019.102922. IF= 9.724 (JCR2019) Quartile: Q1 (rank: 2/200)

6). Golynsky, A.V., Ferraccioli, F., Hong, … **Bohoyo, F. (27/32)**, …, Roberts, J.L. (2018).New Magnetic Anomaly Map of the Antarctic. *Geophysical Research Letters*, 45 (13), pp. 6437-6449. IF: 4.339 Quartile: Q1

7). Pérez, L., **Bohoyo, F.**, Hernández-Molina, F.J., Casas, D., Galindo-Zaldívar, J., Ruano, P., Maldonado, A. (2016) Tectonic activity evolution of the Scotia–Antarctic Plate boundary from mass transport deposit analysis.Journal of Geophysical Research: Solid Earth.121, 2216-2234 DOI:10.1002/2015JB012622. IF: 3.35 Quartile: Q1

8). Torres-Carbonell, P.J., Dimieri, L.V., Olivero, E.B., **Bohoyo, F**., Galindo-Zaldívar, J. (2014). Structure and tectonic evolution of the Fuegian Andes (southernmost South America) in the framework of the Scotia Arc development. *Global and Planetary Change*.123, pp. 174-188. IF: 2.766 Quartile: Q1.

9). Arndt, J.E., H. W. Schenke, M. Jakobsson, … **F. Bohoyo (8/16)**,…, R. Wigley. (2013) The International Bathymetric Chart of the Southern Ocean (IBCSO) Version 1.0—A new bathymetric compilation covering circum-Antarctic waters. *Geophysical Research Letters*. 40(12) 3111-3117. IF: 4.456 Quartile: Q1. Most cited paper: 299

10). **F. Bohoyo**, J. Galindo-Zaldívar, A. Jabaloy, A. Maldonado, J. Rodríguez-Fernandez, A. Schreider, E. Suriñach.(1/7) (2007) Extensional deformations and development of deep basins associated to the sinistral transcurrent fault zone of the Scotia-Antarctica plate boundary. Geological Society of London 290 (203-217) Sp. Pub. First author most cited.

C.2. Congress *-(International selection in Antarctica from 170 congress participation)*

1. **F. Bohoyo**, J.E. Arndt, Ó. Bermúdez, B. Dorschel, C. Escutia, J. GalindoZaldívar, L. Hehemann, K. Hogan, R. Larter, P. Leat, J. López-Martínez, A. Maestro, A. Maldonado, C.Morales, F. Nitsche, T. Riley, A.Tate. Title: Central Scotia Sea bathymetry compilation and geological map international initiative (BATCESSEA). **In:** SCAR2020 ONLINE Open Science Conference. 3-7 August 2020. Poster and additional material.

2. **Bohoyo, F.,** Maestro, A., Rey, C., Druet, M., Pérez, L., Galindo-Zaldivar, J., Catalán, M.,López-Quirós, A., Escutia, C. Title: Deep structure and tectonic evolution of the South Orkney microcontinent (Northern Weddel Sea, Antarctica). **In:** XIII International Symposium on Antarctic Earth Sciences. July 2019, Incheon (Korea). Poster and abstracts book.

3. **Bohoyo, F.,** Larter, R.D., Galindo-Zaldívar, J., Leat, P.T., Maldonado, A., Tate, A.J., Gowland, E.J.M., Arndt, J.E., Dorschel, B., Kim, Y.D., Hong J.K., Flexas M.; López-Martínez, J., Maestro, A., Bermudez, O., Nitsche, F.O., Livermore, R. A. and Riley, T. R. Title: From Batdrake to Central Scotia Sea. **In**: First Arctic, Antarctic & North Pacific Mapping Meeting – 8/10 October 2018, Estocolmo, Suecia. Nippon Foundation – GEBCO – Seabed2030. Oral

C.3. Research projects (6 Leaded projects of the National Plan)

1) Reference: **PID2021-126495NB-C32** Title: Tectonic evolution framework of the Northern Antarctic Peninsula from Middle Miocene to the present and its influence in the onset, development and migration of the Circumpolar Deep Water (CDW) TEMPERATE. Funding: Ministerio de Ciencia e Innovación / 2022 PI: **Dr. Fernando Bohoyo** / Dr. Adolfo Maestro (IGME) Term: 2022 to 2026 Budget: 181000€ + 2 oceanographic cruises.

2) Reference: **TED2021-129816B-I00** Title: Evaluación del potencial de almacenamiento geológico de CO_2 y energía en las plataformas continentales mediterránea y cantábrica SEASTORAGE. Funding: Proyectos de Transición Ecológica y Digital TED 2021 Ministerio de Ciencia e Innovación / 2022 PI: Dr. Adolfo Maestro/**Co-IP: Dr. Fernando Bohoyo** Term: 2022 to 2024 Budget: 159275€

3) Reference: **CTM2017-89711-C2-2-P** Title: Principales procesos tectónicos involucrados en el inicio y evolución de la Corriente Circumpolar Antártica (ACC): desarrollo de márgenes continentales y cuencas oceánicas. TASDRACC. Funding: Ministerio de Ciencia e Innovación / 2017 PI: **Dr. Fernando Bohoyo** / Dr. Adolfo Maestro (IGME) Term: 2018 to 2021 Budget: 121000€ + 2 oceanographic cruises.

4) Reference: **CTM2014-60451-C2-2-P** Title: Evolución geodinámica de los pasos oceánicos de Tasmania y Drake: Correlación tectónica tierra-mar de los márgenes continentales y las cuencas oceánicas TASMANDRAKE Funding: Ministerio de Ciencia e Innovación / 2014 PI: **Dr. Fernando Bohoyo** / Dr. Adolfo Maestro (IGME) Term: 2015 to 2018 Budget: 169400€ + 1 oceanographic cruises.

5) Reference: **CTM2011-30241-C02-02** Title del proyecto: Conexión Pacifico-Atlántico: correlación tectónica tierra-mar y márgenes continentales TIFUMATE-CONPACA Funding: Ministerio de Ciencia e Innovación / 2011 PI: **Dr. Fernando Bohoyo Muñoz**. Instituto Geológico y Minero de España Term: 2012 to 2014 Budget:175450€ + 1 oceanographic cruises.

6) Reference**: CTM2011-13970-E** (SUBPROGRAMA ANT) Title: Modelización de datos batimétricos de alta resolución internacionales en el paso de Drake (Antártida): BAT-DRAKE Funding/Call: Ministerio de Ciencia e Innovación / 2011 PI: **Dr. Fernando Bohoyo Muñoz.** Instituto Geológico y Minero de España Term: 2012 to 2014 Budget: 12000€

C.4. Contracts, technological or transfer merits (selection of Leaded transfer projects)

1. Title: ***SEGYBAS*** Creación de una base de datos infraestructural de perfiles sísmicos en formato SEG-Y en sectores prioritarios de los márgenes Mediterráneo y Cantábrico Funding: IGME Institutions: IGME Term: 4 years (09/2015 to 03/2019) Budget: 376.652,56€ **PI: Fernando Bohoyo**. Researches: 9 Personnel costs included: 1 Titulado Medio 3 years.

2. Title: ***3DCCVC*** Reconstrucción y modelización 3D de la Cordillera y de la Cuenca Vasco-Cantábrica Funding: IGME-Ente Vasco de Energía. Institutions: IGME- EVE Term: 5 years (06/2017-06/2022). Budget: 588.547,56€ **PI: Fernando Bohoyo**. Researches: 13 Personnel costs included: 1 Titulado Medio/ 3 years - 1 Titulado Superior/ 3 years