



Eloi González-Esvertit

PhD in Geosciences

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[Google Scholar](#) | [ORCID](#) | [Scopus](#)

Personal webpage: <https://gonzalezesvertit.com/>

MAIN RESEARCH INTERESTS AND EXPERIENCE

Structural Geology

Geological and structural mapping
Lithosphere geodynamics
Folding and fracturing of rocks
Crystal-plastic deformation, strain partitioning

Petrology

Fluid-rock interactions
Fluid flow and heat transport
Mantle rheology
Metasomatism of crystalline rocks and alteration styles

Geoenergy & Databases

Geoscientific data mining
Carbon Capture and Storage
GIS multi-scale analysis
Interoperable front-end design and real-time data integration

EMPLOYMENT AND RESEARCH EXPERIENCE

04/24 – 10/25. Science Assistant - numerical modelling. Geosciences Barcelona (Spanish Research Council)

EMARS project – Evolution of Olivine Crystallographic Preferred Orientation in the mantle. Single- and multiphase numerical simulations (viscoplastic deformation with dynamic recrystallisation).

04/21 – 04/24. PhD Student. University of Barcelona, Faculty of Earth Sciences

Multidisciplinary study of the giant quartz veins and their host rocks in the Pyrenees through a combination of fieldwork, laboratory analyses, and numerical modelling. Contribution to the knowledge of the Pyrenean tectono-thermal evolution as well as to the global understanding of crustal fluid flow, fluid-rock interactions, brittle and ductile deformation, and formation of giant quartz veins. Supervisors: Dr. Enrique Gomez-Rivas, Dr. Àngels Canals, Prof. Josep Maria Casas.

11/2023. International research visitor at the University of Tübingen (Germany)

Research stay at the Department of Geosciences, Tübingen University. Numerical modelling of diffusive fluid transport in crystalline rocks. With Prof- Paul D. Bons.

03/2023. International research visitor at the University of Aberdeen (United Kingdom)

Research stay at the School of Geosciences of the University of Aberdeen. SEM-EBSD investigations on brittle and ductile deformation microstructures. With Dr. Joyce Neilson, Dr. Alexander Brasier and Dr John Still.

09/22 – 11/22. International research visitor at the RWTH Aachen University (Germany)

Research stay at the Institute of Applied Mineralogy and Economic Geology of the RWTH Aachen University. Comprehensive study of fluid inclusions: microthermometry, Raman spectroscopy and LA-ICPMS microanalysis. With Prof. Thomas Wagner and Dr. Tobias Fusswinkel.

09/20 – 03/21. Assistant Research Scientist. University of Barcelona, Faculty of Earth Sciences

Development of the Iberian Evaporite Structures Database (IESDB) (<https://iesdb.eu>)
Data mining, filtering, and curation. Webpage design and implementation. Image creation.
Overall assessment of evaporite structures in the Iberia Peninsula for earth science, academic research, and resource exploration and appraisal (CO₂ and Energy storage, nuclear waste management).

09/18 – 06/19. Internship Student. Spanish National Research Council (GEO3BCN-CSIC)

Practical introduction to geochronology (360h). Description of igneous rocks from the Pyrenees. Sample management, sample preparation and zircon extraction for U-Pb dating.

EDUCATION

2022 – 2025. PhD in Geosciences, University of Barcelona (Cum Laude, highest possible degree).

Thesis entitled “Fluid migration, rock deformation, and mineral alteration in the Earth’s crust: Insights from giant quartz veins and their host rocks in the Pyrenees”.

Supervisors: Prof. Àngels Canals, Prof. Enrique Gomez-Rivas, Prof. Josep Maria Cass.

Examination panel: Prof. Fernando Tornos, Prof. Sandra Piazzolo, Prof. Melanie Finch, Prof. Eulàlia Massana.

2019 – 2020. MSc Mineral Resources and Geological Hazards, University of Barcelona (Honours).

Awarded by the Spanish Mineralogical Society (SEM). MSc dissertation: *Insights into the structural evolution of the pre-Variscan rocks of the Eastern Pyrenees from metric- and hectometric-sized quartz veins; constraints on chlorite and fluid inclusions thermometry.*

2013 – 2019. Degree in Geology, University of Barcelona.

Awarded by the Spanish Illustrious Official College of Geologists (ICOG). Undergraduate dissertation: *La discordancia del Ordovícico Superior en La Molina (Pirineo): estudio de la deformación y condiciones de formación de las venas de cuarzo asociadas.*

ENROLMENT IN FUNDED PROJECTS

AECT-2024-2-0014 – Unravelling rock deformation history in mantle subduction zones

Funding: Barcelona Supercomputing Center / RES - Red Española de Supercomputación.

Role: Research Team. PI: Maria Gema Llorens.

Project funding: not applicable (1,500,000 HPC hours).

CA23124 – Social, biological and climatic impacts of salt ages

Funding: COST (European Cooperation in Science and Technology) Actions, European Union.

Role: Coordinator [Evaporite Database]. PI: Konstantina Agiadi (University of Vienna).

Project funding: >1M€

PID2022-139943NB-I00 – Geodynamics of Adria microplate, mantle to surface (GeoAdria)

Funding: Min. de Ciencia, Innovación y Universidades (Spanish Government) / European Regional Development Fund.

Role: Research Team. PI: Ivone Iménez Munt (GEO3BCN-CSIC).

Project funding: 131,250.00€

2022PEDC – Millora de pràctiques de geomaterials

Funding: Universitat de Barcelona

Role: Research Team. PI: Prof. Joan Carles Melgarejo (UB).

Project funding: 2,500.00€

2021SGR-00349 – Grup de Recerca Geologia Sedimentària

Funding: Generalitat de Catalunya.

Role: Research Team. PI: Dr. Telm Bover (UB).

Project funding: 40,000.00€

2022GSL-SRG – Unravelling the formation mechanisms of giant quartz veins at the Canigó Massif (Eastern Pyrenees): a structural and geochemical approach

Funding: Geological Society of London

Role: Principal Investigator. PI: Eloi González-Esvertit (UB).

Project funding: 2,400.00€

PID2021-122467NB-C22 – *Fold- and fault-controlled diagenesis in orogenic and rifting systems: implications for geothermal resources and CO₂ storage*

Funding: Min. de Ciencia, Innovación y Universidades (Spanish Government) / European Regional Development Fund.

Role: Research Team. PI: Prof. Anna Travé Herrero (UB) / Dr. Juan Diego Martín Martín (UB).

Project funding: 217,800.00€

Geomodels Research Institute

Funding: Generalitat de Catalunya.

Role: Research Team and Board member [PhD Student representative]. PI: Prof. Eduard Roca (UB).

Project funding: 40,000.00€

PID2020-118999GB-100 – *New evaporite records from the Eastern and Western Mediterranean: contributions to the evolution of the last saline giant and opportunities for the energy transition*

Funding: Min. de Ciencia, Innovación y Universidades (Spanish Government) / European Regional Development Fund.

Role: Research Team. PI: Dr. Lluís Gibert (UB) / Dr. Enrique Gómez-Rivas (UB).

Project funding: 229,900.00€

RyC-2018-026335 – *Understanding the interplay between deformation, dynamic fluid flow and rock alteration in the Earth's crust*

Hired as Assistant Researcher in the framework of the Ramón y Cajal fellowship to Dr. Enrique Gómez Rivas. Funding: Min. de Ciencia, Innovación y Universidades (Spanish Government) / European Regional Development Fund.

Project funding: 208.600.00€

PGC2018-093903-B-C22 – *Unravelling fluid flow during the evolution of inverted basins and orogenic belts: application to CO₂ storage*

Funding: Min. de Ciencia, Innovación y Universidades (Spanish Government) / European Regional Development Fund.

Role: Research Team. PI: Prof. Anna Travé Herrero (UB) / Dr. Juan Diego Martín Martín (UB).

Project funding: 127,050.00€

2017SGR-00824 – *Grup de Recerca Geologia Sedimentària*

Funding: Generalitat de Catalunya.

Role: Research Team. PI: Prof. Anna Travé Herrero (UB).

Project funding: 44,035.34€

COURSES AND FIELDTRIPS

University of Iceland – Reykjanes peninsula, geothermal spots, and Fagradalsfjall eruptions [Fieldtrip]

2023 – Prof. Eniko Bali, Prof. Guðmundur H. Guðfinnsson. Dr. Alberto Caracciolo, Dr. Byron Fabian Pilicita Masabanda, Dr. Araksan Ahmed Aden, Dr. Sigríður María Aðalsteinsdóttir, Dr. Noëmi Löw (University of Iceland).

Fieldtrip to the Reykjanes peninsula and examination of geothermal sites and volcanic products of the Fagradalsfjall 2021 and 2022 eruptions.

University of Iceland – Introduction to fluid inclusions and the composition of geothermal fluids [Course]

2023 – Prof. Robert J. Bodnar (Virginia Tech), Prof. Matthew Steele-MacInnis (University of Alberta), Prof. Pilar Lecumberri-Sánchez (University of Alberta) and Dr. Iwona Gałeczka (Iceland Geosurvey, ÍSOR).

Course including basic and advanced knowledge on fluid inclusion systematics, phase stability, relationship with ore deposits, and implications for geothermal energy.

University of Lausanne / University of Padua – Understanding deep crustal processes [Course]

2023 – Prof. Bernardo Cesare, Prof. Lukas Baumgartner.

Course on petrologic processes in the deep Earth's crust, with emphasis on melting in the lower crust, granitoid magmatism, geochemical differentiation and crustal rheology.

University of Milano-Bicocca – Detrital geochronology and thermochronology [Course]

2023 – Dr Igor M. Villa, Dr Chloé Bouscary, Dr Massimiliano Zattin, Dr Marco G. Malusà.

Course on geo/thermochronological methods (zircon U-Pb, mica Ar-Ar, apatite and zircon fission-track and (U-Th)/He, trapped-charge thermochronology) and the main factors that control the final complexity of the detrital geochronology record in a sedimentary basin.

Marrakech University – High-Atlas of Marrakech, Morocco [Fieldtrip]

2022 – Dr El Hassane Chellai, Dr Mohamed Aquit. Morocco.

Sedimentary, tectonic, and magmatic markers of the Phanerozoic rifting on the northern side of the High-Atlas of Marrakech, Morocco. Cross-section from the Axial zone to the Mesozoic and Cenozoic deposits.

Universitat de Barcelona – Statistics applied to Earth Sciences [Course]

2022 – Dr Cristina Baeza. Barcelona.

Descriptive and inferential statistics, analysis of data matrices, preparation of data for statistical analysis, SPSS package.

University of Catania / INGV – Etna Volcano [Fieldtrip]

2022 – Dr Rosalda Punturo, Dr Giorgio De Guidi, Dr Carmelo Monaco, and Dr Giuseppe Puglisi. Italy.

Volcano-tectonic evidence, dykes, eruptive apparatus and lava flows, active tectonics

University of Catania / INGV – Calabria Crystalline Basement [Fieldtrip]

2022 – Dr Gaetano Ortolano, Dr Eugenio Fazzio, Dr Patrizia Fiannacca, Dr Carmelo Monaco, Dr Giovanni Barreca. Italy.

From ductile to brittle deformation: Palmi Shear Zone – Rovaglioso syn-tectonic granitoids – Messina Strait fault system.

University of Mainz – Microtectonics Masterclass [Course]

2022 – Prof. Cees Passchier and Prof. Virginia Toy. Germany.

Principles of microtectonic analysis, overprinting relations, deformation phases, flow and deformation, intracrystalline deformation, foliations and lineations, shear zones, veins and fringes, metamorphic reaction rims.

University of Edinburg (Online) - Climate Change: Carbon Capture and Storage [Course]

2021 – Prof. Mathieu Lucquiaud, Prof. Mark Wilkinson and Prof. Mennat Allah Labib. Online.

Explore the technology that can provide a long-term solution to protect our atmosphere from an excess of carbon dioxide, in the context of global energy, our use of fossil fuels, and climate change.

University of Kyoto (Online) – Introduction to Geochemistry [Course]

2021 – Prof. Yoji Kobayashi. Online

How the Earth's elements are formed. What determines the elements' abundances and distribution on Earth. Rock classification and geochemical diversity. Environmental/technological problem solving.

Stanford University (Online) – Reservoir Geomechanics [Course]

2021 – Prof. Mark Zoback. Online.

Rock mechanics, structural geology, earthquake seismology and petroleum engineering to address a wide range of geomechanical problems that arise during the exploitation of oil and gas reservoirs.

TEACHING

Universitat de Barcelona (F. Ciències de la Terra) – Training programme for university members

Science and Social Networks – Outreach and science communication.

15 November 2023. Institute for Professional Development (University of Barcelona). Number of teaching hours: 4 hours.

Universitat de Barcelona (F. Ciències de la Terra) – MSc Science and Integrated Management of Water

1st MSc year. Field practical – The Water Cycle and its management. Leading: Dr Jofre Herrero.

11 October 2023 (University of Barcelona). Number of field days: 1 full day (8 hours).

Universitat de Barcelona (F. Ciències de la Terra) – MSc Science and Integrated Management of Water

2nd MSc year. Field practical – Hydrogeology. Leading: Dr Jofre Herrero.

26-29 September 2023 (University of Barcelona). Number of field days: 4 full days (32 hours).

Universitat de Barcelona (F. Ciències de la Terra) – MSc Science and Integrated Management of Water
2nd MSc year. Theoretical and field practical – Biology and Geology for the study of hydrosystems. Leading: Dr Enrique Gómez Rivas.
26-29 September 2023 (University of Barcelona). Number of teaching hours: 8 hours. Number of field days: 1 full day (8 hours).

Universitat de Barcelona (F. Ciències de la Terra) – BSc Environmental Sciences
1st BSc year – Geochemistry. Leading: Dr Irene Cantarero Abad.
11-16 May 2023 (practical sessions) (University of Barcelona). Number of teaching hours: 18 hours.

Universitat de Barcelona (F. Ciències de la Terra) – BSc Environmental Sciences
1st BSc year – Geochemistry. Leading: Dr Irene Cantarero Abad.
11-16 May 2022 (practical sessions) (University of Barcelona). Number of teaching hours: 24 hours.

Tübingen University (Mathematisch-Naturwissenschaftliche Fakultät) – MSc Geosciences
Structural Geology Field Course at Cap de Creus (Spain). Leading: Prof. Paul D. Bons.
2-10 April 2022 (Tübingen University). Number of field days: 7 full days (70 hours).

Universitat de Barcelona (F. Ciències de la Terra) – MSc Science and Integrated Management of Water
2nd MSc year. Field practical – Hydrogeology. Leading: Dr Jofre Herrero.
4-8 October 2021 (University of Barcelona). Number of field days: 5 full days (40 hours).

Total amount of teaching hours at the Universitat de Barcelona: 142.

Total amount of teaching hours at other institutions: 70 hours.

PEER- REVIEWED PUBLICATIONS

15. Prieto-Torrell, C., Albert, H., Aulinas, M., **González-Esvertit, E.**, Arienzo, I., Gisbert, G., Troll, V.R., Fernandez-Turiel, J.L., Rodriguez-Gonzalez, A., Perez-Torrado, F.J. Mush system heterogeneities control magma composition and eruptive style on the Ocean Island of El Hierro, Canary Islands. *Contributions to Mineralogy and Petrology*, 180(32).

DOI: <https://doi.org/10.1007/s00410-025-02216-6>

14. **González-Esvertit, E.**, Canals, A., Prieto-Torrell, C., Bons, P.D., Llorens, M.-G., Casas, J.M., Aguilar, C., Neilson J., Elburg, M.A., Gomez-Rivas, E. Granitoid metasomatism and giant quartz vein formation by mineral replacement: insights from the Canigó Massif, Eastern Pyrenees. *Journal of Petrology*, 66(2), egaf007.

DOI: <https://doi.org/10.1093/petrology/egaf007>

13. **González-Esvertit, E.**, Fusswinkel, T., Canals, A., Casas, J.M., Neilson J., Wagner, T., Gomez-Rivas, E. Fluid evolution and halogen fractionation in orogenic belts: a comparative fluid inclusion appraisal in the Eastern Pyrenees. *Chemical Geology*, 674, 122578.

DOI: <https://doi.org/10.1016/j.chemgeo.2024.122578>

12. **González-Esvertit, E.**, Prieto-Torrell, C., Bons, P.D., Canals, A., Casas, J. M., Elburg, M. A., & Gomez-Rivas E. (2025). A review of the granite concept through time. *Earth-science Reviews*, 261, 105008.

DOI: <https://doi.org/10.1016/j.earscirev.2024.105008>

11. Hu, Y., Bons, P.D., de Riese, T., Liu, S., Llorens, M.-G., **González-Esvertit, E.**, Gómez-Rivas, E., Li, D., Fu, Y., Cai, X. (2024). Folding of a single layer in an anisotropic viscous matrix under layer-parallel shortening. *Journal of Structural Geology*, 188, 105246.

DOI: <https://doi.org/10.1016/j.jsq.2024.105246>

10. **González-Esvertit, E.**, Canals, A., Bons, P.D., Casas, J. M., Nieto, F., & Gomez-Rivas, E. (2024). Chlorite chemical refinement during giant quartz vein formation. *GSA Bulletin*, 136 (11-12): 5208–5216.

DOI: <https://doi.org/10.1130/B37510.1>

- 9. González-Esvertit, E., Casas, J. M.,** Canals, A., Bons, Paul D., Prieto-Torrell, C., Cofrade, G., Gomez-Rivas, E. (2024). Multi-scale Analysis of the Mylonitized Giant Quartz Veins of the Cap de Creus and Canigó Massifs (Pyrenees). In: Çiner, A., et al. Recent Research on Sedimentology, Stratigraphy, Paleontology, Geochemistry, Volcanology, Tectonics, and Petroleum Geology. MedGU 2022. Advances in Science, Technology & Innovation. Springer, Cham.
DOI: https://doi.org/10.1007/978-3-031-48758-3_45
- 8. González-Esvertit, E.,** Alcalde, J., Gomez-Rivas, E. (2024). The Iberian Evaporite Structure Database (IESDB): An Evaporite Radar for Energy, Carbon, and Nuclear Waste Storage Facilities. In: Çiner, A., et al. Recent Research on Sedimentology, Stratigraphy, Paleontology, Geochemistry, Volcanology, Tectonics, and Petroleum Geology. MedGU 2022. Advances in Science, Technology & Innovation. Springer, Cham.
DOI: https://doi.org/10.1007/978-3-031-48758-3_17
- 7. González-Esvertit, E.,** Alcalde, J., Gómez-Rivas, E. (2023). IESDB – The Iberian Evaporite Structure Database. *Earth System Science Data*, 15, 3131–3145. JIF 2022: 11.4 (Q1)
DOI: <https://doi.org/10.5194/essd-15-3131-2023>
- 6. González-Esvertit, E.,** Molins-Vigatà, J., Canals, A., & Casas, J. M. (2023). The geology of the Gréixer area (La Cerdanya, Eastern Pyrenees): Sardic, Variscan, and Alpine imprints. *Trabajos de Geología*, 37, 81-95.
DOI: <https://doi.org/10.17811/tdg.37.2023.81-95>
- 5. González-Esvertit, E.,** Canals, A., Gómez-Rivas, E., Bons, Paul D., Murta, H., Casas, J. M. (2022). Geology of giant quartz veins and their host rocks from the Eastern Pyrenees (Southwest Europe). *Journal of Maps*, 19(1), 2133642. JIF 2022: 2.2 (Q2)
DOI: <https://doi.org/10.1080/17445647.2022.2133642>
- 4. Bons, Paul D.,** Cao, D., de Riese, T., Gómez-Rivas, E., **González-Esvertit, E.,** Koehn, D., Naaman, I., Sachau, T. & Tian, H (2022). A review of natural hydrofractures in rocks. *Geological Magazine*, 159, 1952-1977. JIF 2022: 2.3 (Q3)
DOI: <https://doi.org/10.1017/S0016756822001042>
- 3. González-Esvertit, E.,** Canals, A., Bons, Paul D., Casas, J. M. & Gómez-Rivas, E. (2022). Compiling regional structures in geological databases: the Giant Quartz Veins of the Pyrenees as a case study. *Journal of Structural Geology*, 163(1–4):104705. JIF 2022: 3.1 (Q2)
DOI: <https://doi.org/10.1016/j.jsg.2022.104705>
- 2. González-Esvertit, E.,** Canals, A., Casas, J. M., & Nieto, F. (2021). Chlorite chemical adjustment in the Gréixer vein: effects on thermometry. *Macla*, 24, 32-33.
URL: <https://dialnet.unirioja.es/servlet/articulo?codigo=8231752>
- 1. González-Esvertit, E.,** Canals, A., Casas, J. M., & Nieto, F. (2020). Insights into the structural evolution of the pre-Variscan rocks of the Eastern Pyrenees from La Molina quartz veins; constraints on chlorite and fluid inclusion thermometry. *Geologica Acta*, 18(1), 1-20, I-XVIII. JIF 2019: 1.370 (Q2)
DOI: <https://doi.org/10.1344/GeologicaActa2020.18.18>

CONFERENCE COMMUNICATIONS AND INVITED TALKS

[Underlined author = presenting author]

25. González-Esvertit, E. (2025). Granitic rocks: building and challenging paradigms throughout Earth Science history. Invited lecture, Royal Academy of Exact, Physical and Natural Sciences of Spain. [**Oral** Presentation]. Granada, Spain.

24. González-Esvertit, E., Casas, J. M., Canals, À., Gomez-Rivas, E., Elburg, M.A., Fusswinkel, T., Wagner, T., Prieto-Torrell, C., Nieto, F., Neilson, J., Beranoaguirre, A., Konrad, K., Llorens, M.-G., Bons, P. D. (2025). Sheared rocks, silica stocks: rethinking giant quartz vein formation. GAC MAC IAH-CNC 2025. [**Poster** Presentation]. Ottawa, Canada.

23. Prieto-Torrell, C., Albert, H., Aulinas, M., González-Esvertit, E., Arienzo, I., Gisbert, G., Troll, V.R., Rodriguez-Gonzalez, A., Fernandez-Turiel, J.L., Perez-Torrado, F.J. (2025). Mush system dynamics and architecture on the Ocean Island of El Hierro, Canary Islands. IAVCEI General Assembly 2025. [**Poster** Presentation]. Geneva, Switzerland.

22. Llorens, M.-G., González-Esvertit, E., Qi, C., Prieto-Torrell, C., Gomez-Rivas, E., Yu, Y., Lebensohn, R. (2025). Anisotropy development during dynamic recrystallisation of partially molten olivine. EGU General Assembly 2025. [**Oral** Presentation]. Vienna, Austria.

21. Prieto-Torrell, C., Aulinas, M., Albert, H., Rodriguez-Gonzalez, A., Arienzo, I., Gisbert, G., González-Esvertit, E., Troll, V.R., Fernandez-Turiel, J.L., Perez-Torrado, F.J. (2024). Magma composition and eruptive style heterogeneities in a mush-dominated system (El Hierro, Canary Islands). GEOMARE Speeches 2024. [**Poster** Presentation]. Catania, Italy

20. González-Esvertit, E., Alcalde, J., Gomez-Rivas, E. (2024). Unlocking Evaporite Data: The FAIR Approach of the Iberian Evaporite Structure Database (IESDB). *GEOMARE Speeches* 2024. [**Poster** Presentation]. Barcelona, Spain.

19. González-Esvertit, E., Canals, A., Prieto-Torrell, C., Bons, P.D., Llorens, M.-G., Casas, J.M., Aguilar, C., Neilson J., Elburg, M.A., Gomez-Rivas, E. (2024). Rising and falling paradigms through Earth Science history: assortative mating and refuges over two centuries of granite science. *GEOMARE Speeches* 2024. [**Oral** Presentation]. Barcelona, Spain.

18. Prieto-Torrell, C., Aulinas, M., Albert, H., Rodriguez-Gonzalez, A., Arienzo, I., Gisbert, G., González-Esvertit, E., Troll, V.R., Fernandez-Turiel, J.L., Perez-Torrado, F.J. (2024). Deciphering the Holocene magmatic plumbing system dynamics beneath El Hierro (Canary Islands). *Conferenza A. Rittmann* 2024. [**Poster** Presentation]. Catania, Italy.

17. González-Esvertit E., Canals A., Prieto-Torrell, C., Bons, P.D., Llorens, M.-G., Casas, J.M., Aguilar, C., Neilson J., Elburg M.A., Gomez-Rivas E. (2024). Coupled mylonitization and giant quartz vein formation in the basement of the Pyrenees. *Deformation mechanisms, Rheology and Tectonics (DRT) Meeting*. [**Oral** Presentation]. Barcelona, Spain.

16. González-Esvertit, E., Alcalde, J., Gomez-Rivas, E. (2024). Evaporites for the sustainable exploration and appraisal of mineral resources and Geo-Energy applications: the Iberian Evaporite Structure Database (IESDB). *Deformation mechanisms, Rheology and Tectonics (DRT) Meeting*. [**Poster** Presentation]. Barcelona, Spain.

15. González-Esvertit, E., Alcalde, J., Gomez-Rivas, E. (2024). Making evaporite data FAIR – The Iberian Evaporite Structure Database (IESDB). *International Association of Sedimentology (IAS) Conference*. [**Oral** Presentation]. Aberdeen, United Kingdom.

14. González-Esvertit, E., Canals, A., Prieto-Torrell, C., Bons, P.D., Llorens, M.-G., Casas, J. M., Aguilar, C., Neilson, J., Elburg, M. A., Gomez-Rivas E. (2024). Interplay between metasomatism and mylonitization in the basement rocks of the Pyrenees: coupled formation and deformation of Giant Quartz Veins? *International Association for Structural Geology and Tectonics (IASGT) Workshop and Conference 2024*. [**Poster** Presentation; including extended abstract publication]. Indian Institute of Technology, Kharagpur, India.
13. González-Esvertit, E., Canals, A., Casas, J.M., Bons, P.D., Fusswinkel, T., Wagner, T., Gomez-Rivas, E. (2023). Basement- and cover-hosted Giant Quartz Veins: a comparative fluid inclusion appraisal in the Eastern Pyrenees. *European Current Research on Fluid and Melt Inclusions (ECROFI-2023)*. [**Oral** Presentation]. Reykjavík, Iceland.
12. Alcalde, J., González-Esvertit, E., Gomez-Rivas, E. (2023). IESDB – A comprehensive database of evaporite structures in Iberia. *EGU General Assembly 2023*. [**Poster** Presentation]. Vienna, Austria.
11. González-Esvertit, E., Casas, J. M., Canals, A., Bons, Paul D., Prieto-Torrell, C., Cofrade, G., Gomez-Rivas, E. (2022). Multi-scale analysis of the mylonitized giant quartz veins of the Cap de Creus and Canigó Massifs (Pyrenees). *Mediterranean Geoscience Union Annual Meeting*. [**Oral** Presentation]. Marrakech, Morocco.
10. González-Esvertit, E., Alcalde, J., Gomez-Rivas, E. (2022). The Iberian Evaporite Structure Database (IESDB) – an evaporite radar for energy, carbon, and nuclear waste storage facilities. *Mediterranean Geoscience Union Annual Meeting*. [**Oral** Presentation]. Marrakech, Morocco.
9. González-Esvertit, E., Alcalde, J. & Gómez-Rivas, E. (2022). Introducing the Iberian Evaporite Structure Database (IESDB). *Deformation mechanisms, Rheology and Tectonics (DRT) Meeting*. [**Poster** Presentation]. Catania, Italy.
8. González-Esvertit, E., Casas, J. M., Gómez-Rivas, E. & Canals, A. (2022). Structural analysis of giant quartz veins from the Eastern Pyrenees (SW Europe). *Deformation mechanisms, Rheology and Tectonics (DRT) Meeting*. [**Poster** Presentation]. Catania, Italy.
7. González-Esvertit, E., Gómez-Rivas, E., Canals, A., Llorens, M.-G., Margalef, A. & Casas, J. M. (2022). Indexation, evaluation and interpretation of regional geological structures using Geographic Information Systems: The giant quartz veins of the Pyrenees (SW Europe) as a case study. *XXI Congreso Geológico Argentino / Online live event* [**Oral** presentation].
6. González-Esvertit, E. (2021). Giant quartz veins: kilometres of geological information. Invited keynote at Expominer – MinerMat 2021: *Minerales, materiales, medio ambiente y desarrollo sostenible*. [**Oral** presentation].
5. González-Esvertit, E., Gómez-Rivas, E., Canals, A. & Casas, J. M. (2021). Building an orogen-scale database of giant quartz veins: the GIVEPY (Giant Quartz Veins of the Pyrenees) database. *Waiting for Yorgset, Società Geologica Italiana (SGI) / Online live event* [**Poster** presentation].
4. González-Esvertit, E., Canals, A., Gómez-Rivas, E. & Casas, J. M. (2021). Giant quartz veins in the Eastern Pyrenees: a GIS-based macrostructural approach. *X Congreso Geológico de España de la Sociedad Geológica de España / Vitoria (Spain)* [**Oral** presentation].
3. González-Esvertit, E., Canals, A., Casas, J. M., & Nieto, F. (2020). Chlorite chemical adjustment in the Gréixer vein: effects on thermometry. *II Meeting, Spanish Mineralogical Society (SEM-CAT) / Online live event* [**Oral** presentation].
2. González-Esvertit, E., Canals, A., Casas, J. M., & Nieto, F. (2020). Chlorite and fluid inclusion thermometry as a tool to inquire into the tectono-thermal evolution of orogens: an example from the La Molina V1 (Late Ordovician) and V2 (Alpine) quartz veins. *Geological Society of America Annual Meeting (GSA2020) / Online live event* [**Oral** presentation]. doi: 10.1130/abs/2020AM-359638
1. González-Esvertit, E., Canals, A., & Casas, J. M. (2019). The Upper Ordovician Unconformity in La Molina area (Axial Pyrenees); deformation study and formation conditions of the associated quartz veins. *Basins and Resources (40th anniversary of CREGU). / Nancy (France)* [**Poster** presentation].

GRANTS AND AWARDS

University of Barcelona PhD commission – Internship grant

Selected by the University of Barcelona PhD commission as one of the best research proposals in 2023. Amount awarded: 603€

Agustí Pedro i Pons Foundation – Internship grant

Selected by the Agustí Pedro i Pons Foundation (University of Barcelona) as one of the best research proposals in the category of “Sciences” (Earth Sciences, Biology, Chemistry, Engineering and Physics). Amount awarded: 1500€

Mediterranean Geoscience Union (MedGU) – Best Paper International Award

Awarded at the Mediterranean Geoscience Union annual meeting (MedGU-2022) in Marrakech, Morocco, for with the “Springer Award for Outstanding Paper” in the Sedimentology, Stratigraphy, Paleontology, Chronology conference track. Amount awarded: 300€

Committee: Attila Çiner (Eurasia Institute of Earth Sciences, Istanbul; Technical University, Turkey); Mustapha Meghraoui (IPG Strasbourg, France); Abdelaziz Mridekh (University Ibn Tofail, Kenitra, Morocco); Nabil Khélifi (Springer Nature, Germany).

Deformation Mechanisms, Rheology and Tectonics Society – Student Attendance Funding Program

Awarded by the European Society for Deformation Mechanisms, Rheology and Tectonics as an early career researcher to attend the DRT2022 international conference in Catania, Italy (July 2022). Amount awarded: 700€

Committee: Paul Bons (University of Tübingen); Maria-Gema Llorens (GEO3BCN-CSIC); Gaetano Ortolano (University of Catania); Till Sachau (University of Tübingen); Eugenio Fazio (University of Catania).

Geological Society of London Research Grants – International Project Awarded

Awarded by the Research Grants Committee of the Geological Society of London, chaired by Science secretary Dr Alex Whittaker, for the project *Unravelling the formation mechanisms of giant quartz veins at the Canigó Massif (Eastern Pyrenees): a structural and geochemical approach*. Amount awarded: £1900

Supporters: Joyce Neilson (University of Aberdeen) | Josep Anton Muñoz (University of Barcelona).

Best MSc Dissertation (2020) – SEM

2021 Call for proposals: Academic Honours Award from the Spanish Mineralogical Society (SEM): “Best MSc Thesis Award”. Amount Awarded: 300€.

Supporters: Josep Maria Casas (University of Barcelona) | Àngels Canals (University of Barcelona).

Best Undergraduate Dissertation (2019) - ICOG

2020 Call for proposals: Academic Honours Award from the Illustrious Official College of Geologists (ICOG): “Best BSc Thesis Award”. Amount Awarded: 200€.

Supporters: Josep Maria Casas (University of Barcelona) | Àngels Canals (University of Barcelona).

DATASETS AND DATABASES [Open Access]

González-Esvertit, E., Prieto-Torrell, C., Bons, P. D., Canals, A., Casas, J. M., Elburg, M. A., Gomez-Rivas, E. (2024). Global Granite Geochemistry and Outcrop Database (GGGOD) [Data set]. DIGITAL.CSIC.

<https://doi.org/10.20350/digitalCSIC/16505>

González-Esvertit, E., Canals, A., Prieto-Torrell, C., Bons, P. D., Llorens, M. G., Casas, J. M., ... & Gomez-Rivas, E. (2024). NEIGRA-North-East Iberian Granitoids Database. Geochemistry of granitoids and orthogneisses from the Pyrenees and the Catalan Coastal Ranges [Data set]. DIGITAL.CSIC.

<https://doi.org/10.20350/digitalCSIC/16236>

González-Esvertit, E., Alcalde, J., & Gomez-Rivas, E. (2022). IESDB-The Iberian Evaporite Structures DataBase. An interactive atlas of evaporite structures in Iberia [Data set]. DIGITAL.CSIC.

<https://doi.org/10.20350/digitalCSIC/14586>

González-Esvertit, E., Gomez-Rivas, E., Canals, A., Bons, P.D., & Casas, J.M. (2021). Giant Quartz Veins of the Pyrenees Database – Full Dataset (ESRI Shapefile) (12_2021) [Data set]. Zenodo.
<https://doi.org/10.5281/zenodo.5720513>

González-Esvertit, E., Gomez-Rivas, E., Canals, A., Bons, P.D., & Casas, J.M. (2021). Giant Quartz Veins of the Pyrenees Database – Full Dataset (MS File) (12_2021) [Data set]. Zenodo.
<https://doi.org/10.5281/zenodo.5720604>

González-Esvertit, E., Gomez-Rivas, E., Canals, A., Bons, P.D., & Casas, J.M. (2021). Giant Quartz Veins of the Pyrenees Database – Vein width Dataset (MS File) (12_2021) [Data set]. Zenodo.
<https://doi.org/10.5281/zenodo.5720630>

SERVICE TO THE RESEARCH COMMUNITY

Conference organization

Member of the organizing committee of the GEOMARE Speeches 2024 (Barcelona 2024).

Member of the organizing committee of the Deformation Mechanisms, Rheology and Tectonics Meeting (DRT – Barcelona 2024).

Outreach activities

Geo-Olimpiades [Spanish Geological Olympic Games] 2025 – Organizer at the University of Barcelona.

Geo-Olimpiades [Spanish Geological Olympic Games] 2022 – Organizer at the University of Barcelona.

Geo-Olimpiades [Spanish Geological Olympic Games] 2021 – Organizer at the University of Barcelona.

Geoscience outreach talks in child education schools [Earthquakes and Volcanoes] in 2021, 2023 and 2024.

Webpage administration

IESDB DATABASE: The IESDB (Iberian Evaporite Structures DataBase) is an interactive atlas of evaporite structures in the Iberian Peninsula. [<https://iesdb.eu>].

GIVEPY DATABASE: The GIVEPY Database (GIant quartz VEins of the PYrenees) is an interactive tool that incorporates information of giant quartz veins in the Pyrenees. [<https://givepy.info>].

Sedimentary Geology Research Group: The Sedimentary Geology consolidated group is based at the University of Barcelona and makes contributions to understanding the spatial and temporal evolution of sedimentary basins worldwide. [<https://ub.edu/sedimentary-geology>]

Social networks management

Sedimentary Geology Research Group: Management of Twitter, LinkedIn, and Instagram official accounts.

Iberian Evaporite Structure Database: Management of Twitter account.

Student Supervision

Júlia Molins – BSc thesis [2019]. Structural geology & Tectonics in the Pyrenees.

Victor Martí – BSc thesis [2019]. Structural geology & Tectonics in the Pyrenees.

Andreu Castanyo – MSc thesis [2022]. Igneous petrology in the Pyrenees.

Oriol Miret – Practicum BSc [2024]. Digitalization and analysis of borehole data in Spain.

Albert Camps – Practicum MSc [2024-2025]. Evaporite units' selection for energy storage in Spain.

Natalia Sanchez – MSc thesis [2024-2025]. Evaporite units' selection for energy storage in Denmark.

Kensaku Moriya – MSc thesis [2024-2025]. Chlorite geochemistry in talc deposits from N Spain.

Carles Dols – BSc thesis [2024-2025]. Geochemical database of the La Palma 2021 Cumbre Vieja eruption.

Peer-reviewing

Reviewer of the following journals: Geophysical Research Letters (AGU Journals), Discover Geoscience (Springer Nature), Journal of Structural Geology [x2] (Elsevier), Geochemistry (Elsevier).