

José Miguel Gorosabel

jmgorosa@Central.UH.EDU

 [Linkedin](#)

Research Associate

Relevant Skills

- Reflected in my ability to adapt to new methodologies and techniques, always seeking personal and professional growth.
- Adept at dealing with multitudes of information and data, with a good capacity for synthesis to achieve specific results.
- Experienced in the integration of different geological and geophysical information to obtain models and dedicated maps of the area of interest.
- Processing and interpretation of different geophysical methods including seismic reflection, potential fields (gravity and magnetic), and well logs. Participation in offshore projects.
- Excellent interpersonal skills, working effectively within a team to accomplish key objectives.

Education

- Sep 2016 – Dec 2020 **Ph.D. in Geology**, Complutense University of Madrid (UCM), Spain, Thesis presented in December 2020 and passed with Honours (*Cum Laude*).
- Jul 2015 **M.Sc. in Geological Processes and Resources**, Complutense University of Madrid (UCM), Spain, Specialized in "Sedimentary Basins and Energetic Resources" (with Honours).
- Jul 2013 **M.Sc. Physics**, University of Salamanca, Spain, this degree consisted of five years of study of physics.

Ph.D Thesis

- Title **TECTONO-SEDIMENTARY EVOLUTION OF THE SAN PEDRO BASIN (DOMINICAN REPUBLIC) AND ITS HYDROCARBON POTENTIAL.**
- Tutor PhD. José Luis Granja Bruña (Complutense University of Madrid)
- Description Determination of the tectono-sedimentary evolution of the basin. Integration of geological and geophysical data to obtain the model of the basin, including the structural and stratigraphic analyses. The results have been applied to the determination of the hydrocarbon potential of the basin. Methods: Seismic reflection processing and interpretation, exploration wells correlations, reservoir petrophysics, source rock evaluation, magnetic and gravity anomalies interpretation and modelling.

Courses

- Oct – Nov 2020 **Synthetic Aperture Radar: Hazards**, *University of Alaska Fairbanks*, a course of study offered by AlaskaX, an online learning initiative of University of Alaska Fairbanks.
- Feb - Mar 2019 **Introduction to reservoir characterization and 3D modelling**, course organized by Schlumberger at the Complutense University of Madrid.
- Sep 2015 **Seismic and Sequence Stratigraphy for Play Prediction and Basin Analysis**, *Nautilus*, Tutor: George Bertram (professor at the IFP).
- Jan – Jun 2013 **Introduction to Computer Science and Programming**, a course of study offered by MITx, an online learning initiative of The Massachusetts Institute of Technology through edX.

Research experience

- Mar 2023 – Present **Research Associate at University of Houston**, Department of Earth and Atmospheric Sciences. Member of the CBTH Group (Conjugate Basins, Tectonics and Hydrocarbons). Main Tasks: Seismic data processing and interpretation, basin modeling, GIS database management.
- May 2019 – Mar 2023 **Specialist advisor at Complutense University of Madrid**, Geodynamic, Stratigraphy and Palaeontology Department. Specialist advisor in the project “Tectono-sedimentary model of Mesozoic and Cenozoic basins of the south and south-eastern regions of the Dominican Republic: Identification of the main elements of the petroleum system”, led by the Complutense University of Madrid and the Dominican Geological Survey.
- Sep 2018 – Jul 2021 **Honorary Lecture, Complutense University of Madrid**, Geodynamic, Stratigraphy and Palaeontology Department. Tutor of three Master’s Thesis for the M.Sc. “Hydrocarbon Exploration and Mineral Resources” at Complutense University of Madrid.
- Sep 2016 – Dec 2020 **Ph.D. Student, Complutense University of Madrid**, Faculty of Geology, Department of Geodynamics, Stratigraphy and Paleontology. Determination of the tectonic and stratigraphic evolution of the San Pedro Basin (offshore of The Dominican Republic). Processing, interpretation and integration of seismic data, potential fields, geological mapping and well logs. Determination of the hydrocarbon potential by the source rock evaluation, reservoir petrophysics, basin analysis and traps identification.

Participation in research projects

- May 2019 – Mar 2023 Tectono-sedimentary model of the Mesozoic and Cenozoic basins at the south – southeast margin of The Dominican Republic: Application to the identification and characterization of the elements of the petroleum system. Complutense Univ. of Madrid and Dominican Geological Survey.
- Nov 2013 – May 2014 Interpretation of the geophysical results from the offshore survey NORCARIBE (San Pedro Basin – Dominican Republic).
- Jan 2011 – Dec 2014 Geodynamics of the northern Caribbean: Dominican Republic – Haiti sector (NORCARIBE).

Research Stay

Nov-Dec 2013 **Spanish Research Vessel "Sarmiento de Gamboa" – CSIC**, Data acquisition, quality control and on-board processing in Bathymetry and Multi-Channel Seismic. The project was developed on the Oceanographic Boat "Sarmiento de Gamboa" in the Atlantic Ocean and the Caribbean Sea around the Hispaniola Island (Dominican Republic and Haiti).

Work Experience

Mar 2023 – Present **Research Associate at University of Houston**, Department of Earth and Atmospheric Sciences. Member of the CBTH Group (Conjugate Basins, Tectonics and Hydrocarbons). Main Tasks: Seismic data processing and interpretation, basin modeling, GIS database management.

May 2019 – Mar 2023 **COTESA, SAR data analyst and Geological Advisor**. Developer of new products based on SAR data, including PSI interferometry, change detection, machine learning for land classification and geological services. Project Manager from September 2022 to March 2023.

Aug 2022 – Present **Independent Geological Advisor**. Geological and geophysical advisor of Oil companies, including the study of petroleum potential of basins in the Dominican Republic and field work.

Aug-Sep 2016 **GEOMY TSA, Geophysicist and oceanographic technician**. QA and on-board processing of reflection seismic, sonar and bathymetry data.

Nov 2015 – May 2016 **REPSOL, Geophysicist Intern. Survey Design and QA**. Internship at the Acquisition Unit. Feasibility studies for 2D and 3D seismic surveys, which include ray tracing, critical ray evaluations, resolution analysis and MATLAB programming of applications for seismic designs and quality control.

Jul-Sep 2015 **CEPSA, Summer internship. 3D Seismic modelling and Design**. Internship at CEPSA EP: 3D Surveys design and subsurface coverage analysis. Different designs were compared thanks to CRP-Folds, CMP to CRP displacement and azimuth. Geological models, ray tracings and illumination analysis of complex structures were performed and compared with synthetic results.

Languages

- Spanish: Mother Tongue.
- **English: Advanced.**

Computer Skills

Geology and Geophysics:

- Seismic Processing: ProMax 2D, Vista y GLOBE CLARITAS.
- Geological Interpretation: Petrel, Oasis Montaj and OpendTect.

- 2D/3D Survey Design: MESA Survey Design, NORSAR 2D y OMNI Survey Design and Modelling

Geographic Information Systems:

- Experienced in using ArcGIS and Global Mapper.
- Developing of remote sensing apps in GEE.

Other computer skills:

- Experienced in programming languages JavaScript and Python. Knowledge in C++.

Publications

-Paper: **J. M. Gorosabel Arous**, J.L. Granja Bruña, Gallego-Mingo, A., Gómez de la Peña, L., Mas, R., Rodríguez-Zurrunero, A., Carbó-Gorosabel, A., 2020, **“New Constraints on the Tectono-Sedimentary Evolution of the San Pedro Basin (South-Eastern Dominican Republic Offshore Margin): Implications for Its Hydrocarbon Potential.”**. Geological Society, London, Special Publications, 504: The Basins, Orogens and Evolution of the Southern Gulf of Mexico and Northern Caribbean, doi:10.1144/SP504-2019-224.

-Paper: A. Rodríguez Zurrunero, J.L. Granja-Bruña, A. Muñoz-Martín, S. Leroy, U. ten Brink, **J.M. Gorosabel-Arous**, L. Gómez de la Peña, M. Druet, A. Carbó-Gorosabel, 2020, **“Along-strike segmentation in the northern Caribbean plate boundary zone (Hispaniola sector): Tectonic implications”**, Tectonophysics 776:228322, Feb 2020, doi: 10.1016/j.tecto.2020.228322.

-Paper: A. Rodríguez Zurrunero, J.L. Granja-Bruña, A. Carbó-Gorosabel, A. Muñoz-Martina, **J.M. Gorosabel-Arous**, L. Gómez de la Peña, M. Gómez Ballesteros, A. Pazos, M. Catalán, S. Espinosa, M. Druet, P. Llanes, U. ten Brink, 2019, **“Submarine morpho-structure and active processes along the North American-Caribbean plate boundary (Dominican Republic sector)”**, Marine Geology 407 (2019) 121–147, doi: 10.1016/j.margeo.2018.10.010.

-Paper: **J.M. Gorosabel Arous**, J.L. Granja Bruña, L. Gómez de la Peña, A. Rodríguez Zurrunero, A. Pazos, A. Carbo-Gorosabel, A. Muñoz-Martín, M. Gómez-Ballesteros, M. Druet, 2016, **“Nueva Interpretación del relleno sedimentario de la Cuenca de San Pedro (Offshore de la República Dominicana) en base a nuevos datos sísmicos”**, IX Congreso Geológico de España (12-14 Sep 2016), Geo-Temas 16(2):491-494 155N 1576-5172.

-Paper: A. Rodríguez Zurrunero, J.L. Granja Bruña, A. Muñoz-Martin, L. Gómez de la Peña, A. Carbo-Gorosabel, M. Gómez Ballesteros, **J. M. Gorosabel Arous**, A. Pazos, M. Catalan, M. Druet, P. Llanes, 2016, **“Shallower structure and active process in the northern Hispaniola offshore margin (Dominican Republic): Preliminary results”**, IX Spanish Geological Congress (12-14 Sep 2016), Huelva (Spain), Published on: Geo-Temas, 16 (2) ISSN 1576-5172.

-Conference Paper: **J. M. Gorosabel Arous**, J.L. Granja Bruña, Gallego-Mingo, A., Mas, R., López-Andrés S., Arribas M.E., Arribas J., Canales M.L., Rodríguez-Zurrunero, Reynoso-Villafaña R., Rosario G., Muñoz-Tapia S., A., Carbó-Gorosabel, A., **“Hydrocarbon potential of the San Pedro Basin (Dominican Republic): New insights from source rock sampling”**. EAGE Annual, 83rd Conference and Exhibition, Madrid, Spain (June 6, 2022).

-Conference Paper: **J. M. Gorosabel Arous**, J.L. Granja Bruña, Gallego-Mingo, A., Gómez de la Peña, L., Mas, R., Rodríguez-Zurrunero, A., Carbó-Gorosabel, A., **“New Constraints on the Tectono-Sedimentary Evolution of the San Pedro Basin (South-Eastern Dominican Republic Offshore Margin): Implications for Its Hydrocarbon Potential.”**. Petroleum Geology of Mexico and the Northern Caribbean, Geological Society of London, (15-16 May 2019), London, United Kingdom.

-Conference Paper: **J. M. Gorosabel Arous**, J.L. Granja Bruña, Gallego-Mingo, A., Gómez de la Peña, L., Mas, R., Rodríguez-Zurrunero, A., Carbó-Gorosabel, A., **“New constrains on the tectono-sedimentary evolution of the San Pedro Basin (south-eastern Dominican Republic offshore margin): Implications for its hydrocarbon potential.”**. AAPG Hedberg Research Conference: Geology of Middle America – The Gulf of Mexico, Yucatan, Caribbean, Grenada and Tobago Basins and Their Margins (2-5 July 2018), Sigüenza, Spain.

-Conference Paper: **J. M. Gorosabel Araus**, J.L. Granja Bruña, A. Carbo-Gorosabel **“Hydrocarbon Potential of the San Pedro Basin”**, Conferencia Internacional de Marítima Oceanográfica CIMO (13-14 Sep 2016), Santo Domingo (Dominican Republic).

-Conference Paper: **J. M. Gorosabel Araus**, J.L. Granja Bruña, L. Gómez de la Peña, A. Rodríguez Zurrunero, A. Pazos, A. Carbo-Gorosabel, A. Muñoz-Martin **“Nuevo Análisis Sedimentario de la Cuenca de San Pedro (margen sudeste de la República Dominicana) en base a datos de sísmica de reflexión”**, 9ª Asamblea Hispano Portuguesa de Geofísica y Geodesia (28-30 Jun 2016), Madrid (Spain).

-Conference Paper: **J. M. Gorosabel Araus**, J.L. Granja Bruña, L. Gómez de la Peña, A. Rodríguez Zurrunero, A. Pazos, A. Carbo-Gorosabel, **“New constraints on the sedimentary and tectonic evolution of the San Pedro basin (southern Dominican Republic offshore margin), new opportunities for the hydrocarbon exploration?”**, AAPG/SEG’s International Conference and Exhibition (3-6 May 2016), Barcelona (Spain), pp. 25-25. doi: 10.1190/ice2016-6528590.1.

-Poster: **J. M. Gorosabel Araus**, J.L. Granja Bruña, L. Gómez de la Peña, A. Rodríguez Zurrunero, A. Pazos, A. Carbo-Gorosabel, **“New interpretation of the depositional systems of the San Pedro basin based on new seismic data (southern Dominican republic offshore margin)”**, AAPG/SEG’s International Conference and Exhibition (3-6 May 2016), Barcelona (Spain), pp. 80-80. doi: 10.1190/ice2016-6531439.1.

-Poster: A. Carbó-Gorosabel, J.L. Granja Bruña, A. Rodríguez Zurrunero, L. Gómez de la Peña, A. MuñozMartín, M. Gómez Ballesteros, **J. M. Gorosabel Araus**, S. Espinosa. A. Pazos, M. Catalán, H. Y. Rodríguez Asilis, S. Muñoz, J.L. Núñez, U. S. ten Brink, P. Llanes Estrada, J. Martín Dávila, M. Druet, **“New observations of the active deformation along the oblique collision/subduction boundary zone between the North American and Caribbean plates (northern Hispaniola offshore margin)”**, European Geosciences Union EGS-EUG Joint Assembly (12-17 April 2015), Geophysical Research Abstracts. Vol. 17, EGU2015-14049-1, 2015, Viena (Austria).

-Poster: A. Carbó-Gorosabel, J.L. Granja Bruña, A. Rodríguez Zurrunero, L. Gómez de la Peña, A. MuñozMartín, M. Gómez Ballesteros, A. Pazos, M. Catalán, **J. M. Gorosabel Araus**, S. Espinosa. U. S. ten Brink, S. Muñoz, H.Y. Rodríguez Asilis, J.L. Núñez, P. Llanes Estrada, M. Druet, J. Martín Dávila. L. Coianiz, O. Gadol, D. Schalev, A. Giladi, **“New survey explores the northern Hispaniola offshore margin”**, 77th EAGE Conference-Exhibition 2015 Earth Science for Energy and Environment 1-4 June 2015, Booklet of technical presentations: Novel Interpretation Studies I. Tu P1 10, Madrid (Spain).

Referencess

Antonio Gallego Mingo

Senior Exploration Geologist
CEPSA E&P
agallego@cepsa.com

Javier Becerra

Project Manager
COTESA
javierbecerra@he.grupotecopy.es

José Luis Granja

Assistant Professor
Geodynamics Department (UCM)
Tutor of my Thesis
jlgranja@ucm.es
+34 913 944 832

Andrés Carbó

Professor
Geodynamics Department (UCM)
PI NORCARIBE Project
carbo@ucm.es
+34 670 491 217