



羅西奧 博士後研究

ROCIO BERNAL-OLAYA

Postdoctoral Fellow

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Education

2014 Ph.D. in Geological Sciences. University of Houston. Dissertation: Tectonostratigraphic evolution of the Sinu accretionary prism and Lower Magdalena forearc basin formed above a shallow-dipping subduction zone, Caribbean margin of Colombia. Advisor: Dr. Paul Mann. Houston, TX.

Took classes and oral qualifiers towards Ph.D. in Geological Sciences. The University of Texas at Austin. Austin, TX.

2008 B.S. in Geology. Universidad Nacional de Colombia. Thesis: Definition of a structural model based in two balanced and retrodeformed seismic transects, from the southern area of the Upper Magdalena Basin. Advisor: Dr. Andreas Kammer and Gonzalo Lopez. Bogota, Colombia.

Experience

2014-2015 Exploration Geologists at Conoco Phillips, Houston, TX

2009-2014 Research Assistant at CBTH (Caribbean Basins Tectonics and Hydrocarbons), Houston, TX

Publications

Rocio Bernal-Olaya, Paul Mann, Alejandro Escalona: Cenozoic Tectonostratigraphic Evolution of the Lower Magdalena Basin, Colombia: An Example of an Under-to Overfilled Forearc Basin. Petroleum geology and potential of the Colombian Caribbean margin, 1 edited by Claudio Bartolini, Paul Mann, 01/2015: chapter 14: pages 345-398; American Association of Petroleum Geologists., ISBN: 0891813888

Rocio Bernal-Olaya, Javier Sanchez, Paul Mann, Michael Murphy: Along-strike crustal thickness variations of the subducting Caribbean plate produces two distinctive styles of thrusting in the offshore South Caribbean deformed belt, Colombia. Petroleum geology and potential of the Colombian Caribbean margin, 1 edited by Claudio Bartolini, Paul Mann, 01/2015: chapter 12: pages 295-322; American Association of Petroleum Geologists., ISBN: 0891813888

Rocio Bernal-Olaya, Paul Mann, Carlos A Vargas: Earthquake, Tomographic, Seismic Reflection, and Gravity Evidence for a Shallowly Dipping Subduction Zone beneath the Caribbean Margin of Northwestern Colombia. Petroleum geology and potential of the Colombian Caribbean margin, 1 edited by Claudio Bartolini, Paul Mann, 01/2015: chapter 10: pages 247-270; American Association of Petroleum Geologists., ISBN: 0891813888

Sanchez, J., Mann, P., **Bernal-Olaya, R.**, and Carvajal, L.C., (in preparation), 1600-kmlong Structural-Gravity-Magnetic-Seismic Reflection Transect across the Western Caribbean to Illustrate its Structural Styles, Fault Kinematics and Plate Tectonic History, Marine and Petroleum Geology

Bernal Olaya R., Lopez Yate, G., Kammer, A., 2008, Definición de un modelo estructural a partir de dos transectas estructurales retrodeformadas en el sector sur de la cuenca Valle Superior del Magdalena, Asociación Colombiana de Geólogos y Geofísicos del Petróleo (ACGGP), Extended abstract

Abstracts and Presentations

- Bernal Olaya, R.**, 2015 Tectonostratigraphic Evolution of the Lower Magdalena Basin, Colombia: an Example of an Underfilled to Overfilled Forearc Basin, Oral presentation for the GCAGS (Gulf Coast Association of Geological Societies Transactions) annual meeting, Houston, TX
- Bernal-Olaya, R.**, Mann P., Vargas C., Koulakov I., 2013, Tomographically-imaged subducted slabs, and magmatic history of Caribbean and Pacific subduction beneath Colombia, AGU Annual Convention, San Francisco, California
- Bernal-Olaya, R.**, Sanchez J., Mann P., Murphy M., 2013, Along-strike crustal thickness variations of the subducting Caribbean plate produces two distinctive styles of thrusting in the offshore South Caribbean deformed belt, Research Day at the University of Houston, Houston, TX
- Bernal-Olaya, R.**, 2013, Tectonic configuration and deformation history of the convergent margin between the Caribbean and South American plates, northwestern South America. Oral presentation in the bimonthly meeting of the Colombian Geoscientists Network (CGN)

- **Bernal-Olaya, R.**, Mann, P., Escalona A., Vargas C., 2012, Defining the geometry of the subducting Caribbean slab beneath northwestern Colombia and its controls on the overriding Lower Magdalena forearc basins. Annual Sheriff's Lecture. Department of Earth and Atmospheric Sciences, University of Houston
- **Bernal, R.** 2012. Defining the geometry of the subducting Caribbean slab beneath northwestern Colombia, and its controls on the overriding Lower Magdalena forearc basins. Oral presentation for XI Simposio Bolivariano, "Exploración petrolera en las cuencas subandinas". Cartagena, Colombia
- **Bernal, R.**, Mann, P., Escalona A. and Vargas C., 2012. Evolution of a forearc basin in flat-slab subduction: Lower Magdalena Basin, Colombia. GSA Penrose meeting, "Deformation, Fluid Flow, and Mass Transfer in the Forearc of Convergent Margins". Il Ciocco, Lucca, Italy
- **Bernal, R.**, Mann, P., and Escalona A. 2012. Tectonic Controls on the Spatial and Temporal Migration of Depocenters in Forearc Basins: A Comparison of Modern and Ancient Caribbean Examples. AAPG annual meeting. Long Beach, California
- **Bernal, R.**, Mann, P., and Vargas C., 2011, Lower Magdalena basin, Colombia: A forearc basin formed above a zone of active, shallow subduction. GSA Penrose meeting, "Neotectonics of arc-continent collision", Manizales, Colombia
- **Bernal, R.**, Mann, P., Escalona, A., Hernandez, R., Ramirez, V. 2010 Characterizing the structural style and age of the Romeral fault zone in the subsurface of the Lower Magdalena basin, Colombia. AAPG annual meeting. New Orleans, Louisiana
- **Bernal Olaya R.**, 2010, Tectonics and Petroleum implications in the Lower Magdalena Basin, Colombia. Oral presentation for the CBTH (Caribbean Basins Tectonics and Hydrocarbons) consortium's annual meeting. Jackson School of Geosciences at The University of Texas at Austin
- **Bernal, R.**, Lopez, G., Kammer, A. 2008 Definition of a structural model based in two balanced and retrodeformed seismic transects, from the southern area of Upper Magdalena Valley. III Oil and Gas Investment Conference and Geological Congress. Cartagena, Colombia