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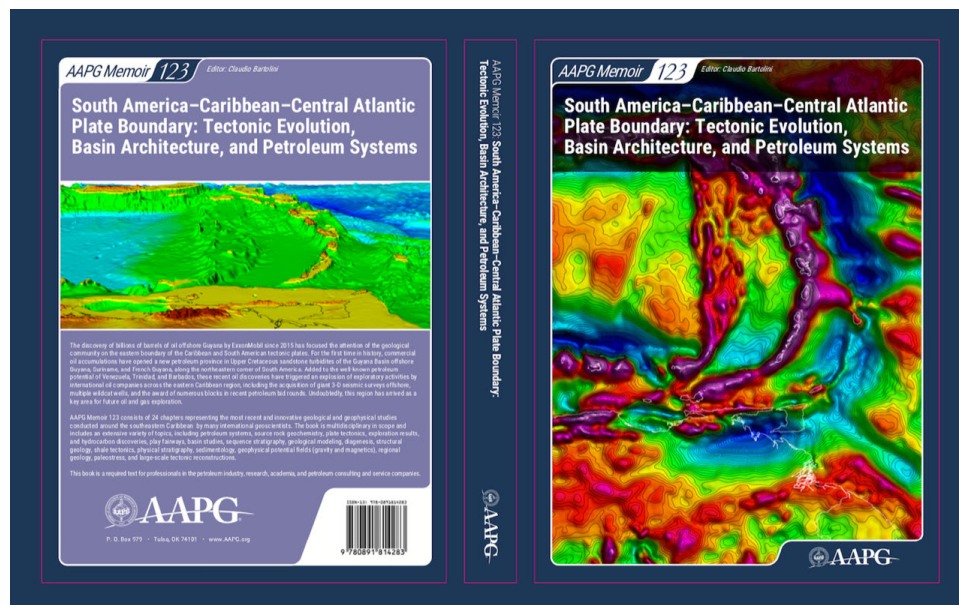
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What's New with the CBTH Project in Houston, Texas and Stavanger, Norway

CBTH Annual Sponsors Meeting 2022

The CBTH Annual Sponsor Meeting will be held virtually on Friday, October 7 from 8 am to 3:30 pm. The agenda will include 15-minute presentations by each student and researcher on their study areas, as well as general project overview. We welcome input from our sponsors, prospective sponsors, and colleagues on our results and future work by our research team. Please visit our website for more information as it becomes available, including RSVP details and the schedule of presentations. If you are not a current project sponsor and would like to attend, please email us at cbthproject@gmail.com



CBTH Publications in AAPG Memoir 123

17 CBTH articles by researchers and students at the University of Houston and University of Stavanger were recently published in AAPG Memoir 123. This 600-page volume, titled South America-Caribbean-Central Atlantic Boundary: Tectonic Evolution, Basin Architecture and Petroleum Systems and edited by Claudio Bartolini, summarizes the results of 5 MS and 4 PhD CBTH-supported students conducted over a period of a decade. Click here to access or purchase these publications via AAPG Datapages and AAPG Bookstore.



What's New

A promotional graphic for the 7th Geological Conference of the GSTT. It features a yellow and black color scheme. On the left, there are portraits of Professor Paul Mann (University of Houston) and Dr. Tricia Alvarez (Heritage Petroleum). The central text reads: "7TH GEOLOGICAL CONFERENCE OF THE GSTT | UPCOMING SHORT COURSE", "SOUTH AMERICA-CARIBBEAN-CENTRAL ATLANTIC PLATE BOUNDARY:", and "TECTONIC EVOLUTION, BASIN ARCHITECTURE, AND PETROLEUM SYSTEMS". It specifies the date as "July 7th, 2022" and the format as "1-day Distance learning". Registration fees are listed: "\$300 USD Professional Member", "\$400 USD Professional Non-member", "\$100 USD Full-time Students/Unemployed Grads (<2yrs)". A description of the course content is provided. At the bottom, there are links to "WWW.THEGSTT.ORG/CONFERENCE", "ADMIN@THEGSTT.ORG", and a "REGISTER NOW!" button, along with social media icons.

Virtual Shortcourse at GSTT Conference

At the Geological Society of Trinidad and Tobago (GSTT) Conference, Paul Mann and Tricia Alvarez, CBTH-supported PhD in 2014 and now at Heritage Petroleum Ltd, will present a synthesis of information from the recent publications in AAPG Memoir 123. This one-day virtual short course will be held on July 7. For registration details, [click here](#).

CBTH students win top prizes at UH EAS Student Research Day

Congratulations to Md Nahidul Hasan, who won the 1st Place Presentation (Advanced PhD) award for his presentation on basin modeling in the Gulf or Mexico, and Juan Pablo Ramos Vargas, who won the 1st Place Presentation (Early PhD & MS) award for his presentation on hydrocarbon trends in northwestern South America at the UH Earth and Atmospheric Sciences Student Research Day competition on April 29, 2022. At the same event, PhD candidates Daniella Easley, Md Nahidul Hasan, Mohamed Abdelfatah, and J.D. McConnell, as well as undergraduate Faith Walton, received scholarships totaling over \$5,000. To see all the research day prize winners, [click here](#).

2022 summer internships

Congrats to CBTH students and graduates who have received 2022 summer internships:

- o Daniella Easley, PhD candidate (Hess, Houston, focus: GOM)
- o Md Nahidul Hasan, PhD candidate (BP, Houston, focus: GOM)
- o James D. McConnell, PhD candidate (Murphy Oil Corporation, Houston, focus: GOM)
- o Ben Miller, MS graduate (Dec. 2021) (Murphy Oil Corporation, Houston, focus: GOM)
- o Bryan Moore, MS candidate (August 2022) (Total, focus: SE Caribbean)

UiS wins 3rd place at AAPG Europe Region IBA competition

Congrats to Alejandro Escalona and his University of Stavanger team for placing third in the AAPG Europe Region Imperial Barrel Award 2022. After 8 weeks for intensive work and a 2 days of competition between 9 European teams from France, Hungary, Italy, Switzerland, Norway, Poland and Romania the three top teams have been selected by a panel of 6 judges from the energy industry.



Graduating Students at UH

NAWAZ BUGTI will complete his PhD in August 2022, which will include three chapters. The first is a tectonic reconstruction and opening model for the Gulf of Mexico that takes into account multiple data types from the entire GOM region for determining the continent-ocean boundaries, the second is a study of salt withdrawal basin formation in the northwestern GOM, and the third is a basin modeling study of the northwestern GOM.



BRYAN MOORE will complete his MS thesis in August 2022, which includes two chapters. The first is on the effects of subducting bathymetric highs on variations in the wedge taper angles and the hydrocarbon implications of the Barbados accretionary prism, and the second is a mapping and basin modeling study of the Barbados accretionary prism.

New Students at UH

FAITH WALTON joined the CBTH Project as an undergrad research assistant in Spring 2022. In addition to data management projects, she is currently working on her senior honors thesis, entitled "Structural restoration of submarine and coalesced pull-apart basins in the northern Gulf of California." The goal of this study is to use the Miocene to Recent oblique opening of the Gulf of California as a structural and stratigraphic analog for the Aptian-Albian and similarly oblique opening of the Equatorial Atlantic conjugate margins.





New Students at UH

BANDAR ALSHAMMARY is an honors BS graduate in geology from West Virginia University and is currently a development geologist with Saudi Aramco in Dhahran. His CBTH MS project will focus on unconventional production from the Eagle Ford Formation in central Texas. His research will be supported by Saudi Aramco.



RUTH BELTRAN is a current employee of Ecopetrol in Bogota, Colombia who will begin a PhD study in fall 2022 with the CBTH Project focusing on Ecopetrol's production area in the Campos-Santos region of Brazil. Her research will be supported by Ecopetrol.

UPAL SHARIAR is an honors BS and MS student from Dhaka, Bangladesh who will begin a PhD study in fall 2022 with the CBTH Project focusing on Mauritania and the Moroccan offshore margin. This project will complete the regional CBTH mapping and basin modeling study that transverse the northwestern African margin from Morocco to the Guinea Plateau and builds on completed and ongoing work on the rifted-passive margin of northwestern Africa by Marcus Zinecker (PhD, 2020, now with BP Houston), Tarek Galhom (MS, 2020, now with Apache, Egypt) and Nahid Hasan (PhD, in progress).





Recent Meetings

Project sponsors are provided access to all meeting presentations from 2005 to present, with talk and poster updates added shortly after each conference. Our GIS-based database curates key maps of subsurface geology covering the vast CBTH study area that extends from the Gulf of Mexico to southwestern Africa. Please visit our website for more information.

PEMEX Sedimentary Basin Analysis Conference (March 9, 2022)

- o Md Nahidul Hasan - Structure, stratigraphy, and petroleum potential of the deepwater southern Gulf of Mexico (Invited Talk)

Asociacion Mexicana de Geologos Petroleros Conferencia (March 30, 2022)

- o Md Nahidul Hasan - Structural evolution and petroleum potential of the Campeche and Yucatan salt basin (Invited Talk)



CBTH PhD student Juan Pablo Ramos presents at AAPG ICE in Colombia

AAPG International Conference and Exhibition (April 19-22, 2022)

- o Juan Pablo Ramos - Regional effects of the Panama arc-South America collision and its controls on hydrocarbon distribution in Colombia and western Venezuela
- o Juan Pablo Ramos - Tracking a Late Cretaceous-sourced petroleum system in the offshore Sinu Belt, the Magdalena Fan, and the offshore Guajira of the Caribbean margin of Colombia



Recent Meetings

35th Annual Student Research Conference and Alumni & Industry Open House, Houston, Texas (April 29, 2022)

- o Mohamed Abdelfatah - Crustal structure of the northwestern Red Sea rifted-passive margin based on an integration of seismic refraction, seismic reflection, and outcrop data
- o Muhammad Nawaz Bugti - Revised plate model for the opening of the Gulf of Mexico Basin based on a more precise definition of the continent-ocean boundaries from multiple data types
- o Daniella Easley - Variations in the expellable potential of Late Cretaceous source rocks from Trinidad to Guyana: an evaluation of the influence of tectonic, paleogeographic, and global isotopic excursions on organic deposition and preservation
- o Md Nahidul Hasan - Estimating thermal stress and expelled hydrocarbons from Mesozoic-Cenozoic source rocks of southern Gulf of Mexico
- o J.D. McConnell - Distribution and thickness of sediment-filled rifts in the deep-water Camamu-Alamada rifted-passive margin of northeastern Brazil
- o Chesney Petkovsek - Mechanism to explain lateral variations in the geothermal gradient of the Delaware Basin, West Texas, as measured and calibrated from 1,024 deep exploration wells
- o Juan Pablo Ramos - Coniacian-Santonian-sourced petroleum system along the deepwater Caribbean margin of Colombia
- o Kenneth Shipper - Testing rift versus transform models for the Guyana margin using 3D gravity model in contrast to seismic reflection data
- o Faith Walton - Structural restoration of submarine and coalesced pull-apart basins in the northern Gulf of California

AAPG Southwest Conference (May 2-4, 2022)

- o Hualing Zhang - Tectonic and hydrocarbon evolution of the Permian Basin, West Texas based on regional gravity modeling, subsidence, and source rock maturity analysis

AAPG ICE 2022 On-Demand Forum II: Offshore Exploration (June 17, 2022)

- o Juan Pablo Ramos and Paul Mann - Tracking a Late Cretaceous-sourced petroleum system in the offshore Sinu Belt, the Magdalena Fan, and the offshore Guajira of the Caribbean margin of Colombia



Upcoming Meetings

Please visit our website for more information about these events as they become available, including lists of accepted CBTH presentations and registration links.

Geological Society of Trinidad and Tobago Conference 2022 (July 10-13, 2022)

- o Paul Mann and Tricia Alvarez - South America-Caribbean-Central Atlantic Plate Boundary: Tectonic evolution, basin architecture and petroleum systems (Pre-Meeting Short Course on July 7)



IMAGE 2022 (August 28 - September 2, 2022)

- o Sharon Cornelius, Paul Mann, and Sumit Mukherjee - Regional variations in basement dip of the Santos, Campos and Espirito Santo Basins, offshore Brazil: and its control on structural style in the overlying detached salt and sedimentation
- o Daniella Easley, Andrew Pepper, and Paul Mann - Hydrocarbon potential of source rocks from Trinidad to Guyana: An application of Ultimate Expellable Potential (UEP) acme modeling
- o Md Nahidul Hasan, Paul Mann, and Benjamin Miller - Tectonic history and hydrocarbon potential of the Moroccan rifted-passive margin
- o James "JD" McConnell Jr. and Paul Mann - Early Cretaceous deepwater rifts of the Camamu-Almada Basin of northeastern Brazil and their implications for the distribution of deepwater source and reservoir rocks
- o Chesney Petkovsek, Paul Mann, and Andrew Pepper - Control of deeply-buried Proterozoic basement intrusive rocks inferred from a basin-wide maps of interval-specific geothermal gradient, Delaware Basin, West Texas, and southeastern New Mexico
- o Juan Pablo Ramos and Paul Mann - Paleogene Yucatan back-arc basin in the northern Caribbean: Ridge and fracture zone geometry in oceanic crust, depth-to-Moho, and Cenozoic sedimentary fill
- o Kenneth Shipper and Paul Mann - Testing rift versus transform models for the Guyana margin using 3D gravity model compared to seismic reflection data

Second EAGE Workshop on Advanced Seismic Solutions in the Gulf of Mexico (September 7-8, 2022)



Upcoming Meetings

Fourth EAGE/HGS Conference on Latin America (September 14-16, 2022)

HGS Student Expo (September 19-20, 2022)

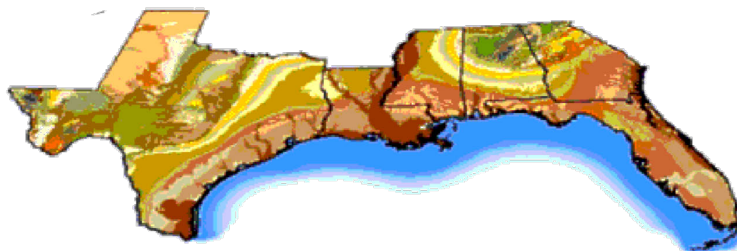
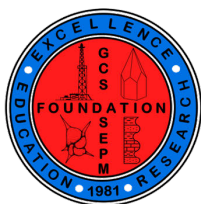
HGS-PESGB Africa Conference - The Future of G&G in Africa's E&P: Skills, Transition, & Resources (September 26-28, 2022)

First EAGE Guyana-Suriname Basin Conference (September 28-30, 2022)



CBTH Annual Sponsor Meeting (October 7, 2022)

GSA Connects 2022 (October 9-12, 2022)



38th Annual GCSSEPM Foundation Perkins-Rosen Research Conference (December 5-7, 2022)

o Sharon Cornelius - Variations in carbonate deposition along the eastern Brazilian Atlantic Margin from Sergipe Alagoas to Pelotas Basins during the Upper Cretaceous (79 to 112 Ma)

AGU Fall Meeting 2022 (December 12-16, 2022)

GeoGulf 2023 (April 23-25, 2023)



Recent Theses and Dissertations

- Bishop, L.M., 2021, Cretaceous-Cenozoic tectonostratigraphic evolution and hydrocarbon prospectivity of the Sandino forearc basin, offshore Nicaragua, MS thesis, University of Houston, 126 p. (now with Arena Energy, The Woodlands)
- Liu, M., 2021, Mesozoic rift evolution and crustal structure of the Gulf of Mexico Basin from integration of multiple geological and geophysical datasets, PhD dissertation, University of Houston, 219 p. (now with TGS, Houston)
- Miller, B., 2021, Tectonic evolution of the Cenozoic Lesser Antilles volcanic arc and the Mesozoic rifted-passive margin of northern Morocco using geologic, seismic reflection, and gravity data; MS thesis, University of Houston, 147 p. (now intern with Murphy Oil, Houston)
- Romito, S., 2021, Crustal structure, tectonostratigraphy, and hydrocarbon potential of the terranes underlying the Caribbean Plate and the Camamu-Almada rifted-passive margin of northeastern Brazil, PhD dissertation, 288 p. (now with ConocoPhillips, Midland)
- Zhang, H., 2021, Gravity modeling, seismic stratigraphy, and thermal maturity modeling of hydrocarbons of the Permian Foreland Basin, USA and the Sergipe-Alagoas rifted-passive margin, Brazil, PhD dissertation, University of Houston, 213 p. (now with Petrochina, Beijing)

Recent and Upcoming Publications

- Alvarez, T., Mann, P., and Wood, L.J., 2021, Tectonic evolution of sedimentary basins around the arcuate southeastern margin of the Caribbean plate, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 183–238. <https://doi.org/10.1306/13692246M1233848>
- Alvarez, T., Mann, P., Vargas, C.A., and Wood, L.J., 2021, Gravity, seismic reflection and tomographic constraints on the subduction to strike-slip transition; southeastern Caribbean Plate boundary zone, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 469–512. <https://doi.org/10.1306/13692255M1233848>
- Blanco, J.M. and Mann, P., 2021, Subsurface geology of La Vela Basin, offshore Venezuela: Examples of basement and carbonate-hosted liquid and gas hydrocarbon reservoirs, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 411–440. <https://doi.org/10.1306/13692253M123861>
- Carvajal-Arenas, L.C., Torrado, L., Mann, P., and English, J., 2020, Basin modeling of Late Cretaceous / Mio-Pliocene petroleum system of the deep-water eastern Colombian Basin and South Caribbean Deformed Belt: *Marine and Petroleum Geology*, v. 121, p. 104511. <https://doi.org/10.1016/j.marpetgeo.2020.104511>



Recent and Upcoming Publications

- Castillo, K., and Mann, P., 2021, Structure, stratigraphy and hydrocarbon potential of the easternmost part of the Eastern Venezuelan foreland basin, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 591–620. <https://doi.org/10.1306/13692259M123861>
- Cedeño, A., Ahmed, M., Escalona, A., and Abrahamson, P., 2021, Tectono-stratigraphic evolution of the western Barbados accretionary prism and the eastern Tobago Basin: Implications for petroleum systems, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 649–676. <https://doi.org/10.1306/13692261M1233854>
- Cedeño, A., Ohm, S., and Escalona, A., 2021, Barbados petroleum and its role in understanding distribution of Cretaceous source rocks in the southeastern Caribbean margin: Insights from an organic geochemistry study, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 441–468. <https://doi.org/10.1306/13692254M1233854>
- Cedeño, A., Ohm, S., Escalona, A., Narain, E., and Jager, J., 2021, Source rocks in the Guyana Basin: Insights from geochemical investigations of 15 heavy oils from onshore Suriname, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 749–776. <https://doi.org/10.1306/13692312M1233854>
- Cornelius, S. and Emmet, P., 2022, Difference in overpressure environments for the Western and Central Deepwater Gulf of Mexico, AAPG Bulletin, in press.
- Escalona, A., Ahmed, S.S., and Watson, L., 2022, Late Cretaceous-Pliocene paleogeography of the circum-Caribbean region based on quantitative plate reconstruction and georeferenced databases, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 513–538. <https://doi.org/10.1306/13692256M1233849>
- Escalona, A., Norton, I., Lawver, L., and Gahagan, L., 2022, Quantitative plate tectonic reconstructions of the Caribbean region from Jurassic to present, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 239–264. <https://doi.org/10.1306/13692247M1233849>
- Figueira, B., and Escalona, A., 2021, Overview of the subsurface structural provinces of the southern Gulf of Paria region, Trinidad-Venezuela: Implications for petroleum prospectivity, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 539–562. <https://doi.org/10.1306/13692257M1233855>
- Galhom, T., Mann, P., and Rudolph, K., 2022, Jurassic-Recent structure, stratigraphy, and basin modeling of the rifted-passive margin of the Tarfaya-Dakhla basin of southern Morocco, *Marine and Petroleum Geology*, 105626. <https://doi.org/10.1016/j.marpetgeo.2022.105626>



Recent and Upcoming Publications

- Gomez, S., Mann, P., Alvarez, T., and Krueger, A., 2021, Tectono-stratigraphic evolution of the Barbados accretionary prism and surrounding sedimentary basins within the southeastern Caribbean, arcuate, strike-slip-to-subduction transition zone, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 265–316. <https://doi.org/10.1306/13692248M1233850>
- Hasan, M.N. and Mann, P., 2021, Structural styles and evolution of the Campeche salt basin, southern Gulf of Mexico, *Marine and Petroleum Geology*, v. 133, n. 105313. <https://doi.org/10.1016/j.marpetgeo.2021.105313>
- Hasan, M.N., and Mann, P., 2022, Deepwater passive margin foldbelts, in J. Rotzien, C. Yeilding, R. Sears, F.J. Hernández-Molina, and O. Catuneanu (eds.), *Deepwater Sedimentary Systems: Science, Discovery, and Applications*, Elsevier, in press.
- Hippolyte, J.C., and Mann, P., 2021, Neogene paleostress and structural evolution of Trinidad: Rotation, strain partitioning, and strike-slip reactivation of an obliquely colliding thrust belt, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 317–346. <https://doi.org/10.1306/13692249M1233851>
- Kenning, J. and Mann, P., 2020, Control of structural style by large, Paleogene, mass transport deposits in the Mexican Ridges foldbelt and Salina del Bravo, western Gulf of Mexico, *Marine and Petroleum Geology*, v. 115, p. 104254. <https://doi.org/10.1016/j.marpetgeo.2020.104254>
- Kenning, J. and Mann, P., 2020, Regional thermal maturity modeling of hydrocarbons along the deep-water Yucatan margin, southern Gulf of Mexico, in Davison, I., Hull, J., and Pindell, J., eds., *The Basins, Orogens, and Evolution of the Southern Gulf of Mexico and Northern Caribbean*, Geological Society, London, Special Publication 504, p. 203–231. <https://doi.org/10.1144/SP504-2019-252>
- Kenning, J., and Mann, P., 2021, Cenozoic structural deformation between the Lamprea fold-belt and Salina del Bravo salt province by interacting salt and shale detachments, western Gulf of Mexico, *Journal of Structural Geology*, v. 153. <https://doi.org/10.1016/j.jsg.2021.104458>
- Leslie, S., and Mann, P., 2020, Structure, stratigraphy, and petroleum potential of the deepwater Colombian basin, offshore northern Colombia, *Interpretation*, v. 8, n. 4, p. 1N-T1095. <https://doi.org/10.1190/INT-2020-0028.1>
- Leslie, S., and Mann, P., 2022, Distribution and character of bottom simulating reflections in the western Caribbean offshore Guajira Peninsula, Colombia, in J. Mienert, C. Berndt, A. Tréhu, A. Camerlenghi, and C.-S. Liu (eds.), *World Atlas of Submarine Gas Hydrates in Continental Margins*, p. 333–341. <https://doi.org/10.1007/978-3-030-81186-0>
- Mann, P., 2022, Crustal structure and tectonostratigraphy of rifted-passive margins with applications for hydrocarbon exploration, in J. Rotzien, C. Yeilding, R. Sears, F.J. Hernández-Molina, and O. Catuneanu (eds.), *Deepwater Sedimentary Systems: Science, Discovery, and Applications*, Elsevier, in press.



Recent and Upcoming Publications

- Mann, P. and Pierce, S., 2020, Stratigraphy and structure of regionally-isolated hydrocarbon occurrences in the Azua basin, south-central Dominican Republic (northeastern Caribbean), in Davison, I., Hull, J., and Pindell, J., eds., *The Basins, Orogens, and Evolution of the Southern Gulf of Mexico and Northern Caribbean*, Geological Society, London, Special Publication 504, p. 437-478. <https://doi.org/10.1144/SP504-2019-241>
- Pachon-Parra, L., Mann, P., and Cardozo, N., 2020, Regional subsurface mapping and 3D flexural modeling of the obliquely converging Putumayo foreland basin, southern Colombia: Interpretation, v. 8, n. 4, p. 1N-T1095. <https://doi.org/10.1190/INT-2020-0021.1>
- Punnette, S. and Mann, P., 2021, Subsurface structure of the Hinge Line fault zone and its control on the distribution of gas fields of the North Coast Marine Area of offshore northern Trinidad, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 357–386. <https://doi.org/10.1306/13692251M123861>
- Punnette, S., Wood, L., and Mann, P., 2021, Pleistocene to Holocene sedimentary evolution of the North Coast Marine Area, offshore Trinidad, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 563–590. <https://doi.org/10.1306/13692258M123861>
- Rodriguez, L., Mann, P., and Hall, S., 2021, Crustal structure and geologic history of the Espino rift, Venezuela, based on potential fields, seismic reflection, and well data, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 713–748. <https://doi.org/10.1306/13692265M123861>
- Romito, S., and Mann, P., 2020, Tectonic terranes underlying the present-day Caribbean plate: Their tectonic origin, sedimentary thickness, subsidence histories, and regional controls on hydrocarbon resources, in Davison, I., Hull, J., and Pindell, J., eds., *The Basins, Orogens, and Evolution of the Southern Gulf of Mexico and Northern Caribbean*, Geological Society, London, Special Publication 504, p. 343-377. <https://doi.org/10.1144/SP504-2019-221>
- Romito, S., and Mann, P., 2022, Testing the transitional crust and its implications on the tectonomagmatic evolution of the Camamu-Almada margin along the northeastern rift segment of Brazil, *Tectonics*, in press.
- Sanchez, J., and Mann, P., 2020, Patterns of recent deformation of the western Maracaibo block, northern Colombia and western Venezuela, based on integration of geomorphic indices with regional geology, *Interpretation*, v. 8, n. 4, p. ST49-ST67. <https://doi.org/10.1190/INT-2020-0066.1>
- Sun, L., Mann, P., and Bird, D., 2020, Integration of tectonic geomorphology and crustal structure across the active, oblique collisional zone on the island of Hispaniola, northeastern Caribbean, in Davison, I., Hull, J., and Pindell, J., eds., *The Basins, Orogens, and Evolution of the Southern Gulf of Mexico and Northern Caribbean*, Geological Society, London, Special Publication 504, p. 379-400. <https://doi.org/10.1144/SP504-2019-242>



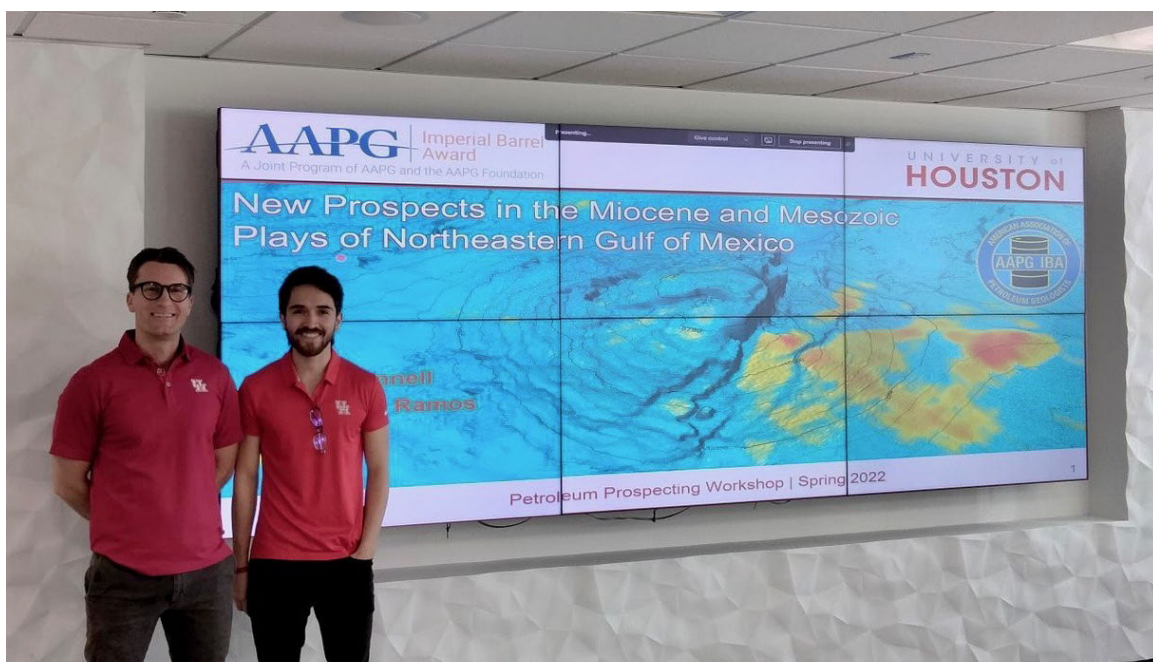
Recent and Upcoming Publications

- Sun, L. and Mann, P., 2021, Along-strike rapid structural and geomorphic transition from transpression to strike-slip to transtension related to active microplate rotation, Papua New Guinea, *Frontiers in Earth Science*, 13 May 2021. <https://doi.org/10.3389/feart.2021.652352>
- Tillman, T. and Mann, P., 2020, Regional hydrocarbon potential of the northeastern Caribbean based on integration of sediment thickness and source rock data, in Davison, I., Hull, J., and Pindell, J., eds., *The Basins, Orogens, and Evolution of the Southern Gulf of Mexico and Northern Caribbean*, Geological Society, London, Special Publication 504, p. 401-436. <https://doi.org/10.1144/SP504-2019-244>
- Torrado, L., Carvajal-Arenas, L. C., Mann, P., Bhattacharya, J., 2020, Integrated seismic and well-log analysis for the exploration of stratigraphic traps in the Carbonera Formation, Llanos foreland basin of Colombia, *Journal of South American Earth Sciences*, v. 104, p. 102607. <https://doi.org/10.1016/j.jsames.2020.102607>
- Vence, E., and Mann, P., 2020, Subsurface basement, structure, stratigraphy, and timing of regional tectonic events affecting the Guajira margin of northern Colombia, *Interpretation*, v. 8, n. 4, p. 1N-T1095. <https://doi.org/10.1190/INT-2020-0016.1>
- Watson, L. and Escalona, A., 2021, Creating spatial-based paleogeography from plate reconstructions: a methodology, in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 347–356. <https://doi.org/10.1306/13692250M1233852>
- Zhang, H., Mann, P., Bird, D., and Rudolph, K., 2021, Integration of regional gravity modeling, subsidence analysis, and source rock maturity data to understand the tectonic and hydrocarbon evolution of the Permian Basin, west Texas, *Interpretation*, v. 9, n. 1, 1-F-Y1. <https://doi.org/10.1190/INT-2020-0065.1>
- Zimmermann, U., Dieset, J., Watson, L., and Lapen, T., 2021, Sedimentological constraints and provenance of Eocene and Miocene successions from Barbados, Eastern Caribbean-NE South American Boundary: in C. Bartolini (ed.), *South America-Caribbean-Central Atlantic Plate Boundary: Tectonic Evolution, Basin Architecture, and Petroleum Systems*, AAPG Memoir 123, p. 109–138. <https://doi.org/10.1306/13692244M1233846>



Awards (2022)

- o Md Nahidul Hasan, PhD Candidate, 1st Place Presentation (Advanced PhD category), UH EAS Student Research Day 2022 (\$850)
- o Juan Pablo Ramos Vargas, PhD Candidate, 1st Place Presentation (Early PhD & MS category), UH EAS Student Research Day 2022 (
- o Daniella Easley, PhD Candidate, UH EAS outstanding graduate work in Geology scholarship (\$1250)
- o Md Nahidul Hasan, PhD Candidate, UH EAS outstanding graduate work in Geology scholarship (\$1250)
- o Md Nahidul Hasan, PhD Candidate, UH Alumni Association Scholarship (\$1500)
- o Mohamed Abdelfatah, PhD Candidate, UH EAS first year PhD in Geology scholarship (\$1000)
- o Mohamed Abdelfatah, PhD Candidate, UH Alumni Association Scholarship (\$1500)
- o James D. McConnell, PhD Candidate, UH EAS first year PhD in Geology scholarship (\$1000)
- o Faith Walton, Undergraduate, UH EAS undergraduate academic excellence in geoscience scholarship o (\$1000)
- o Juan Pablo Ramos Vargas, PhD Candidate, 1st Place Poster Presentation, 28th Annual Milton B. Dobrin Lecture (\$800)



CBTH PhD students J.D. McConnell and Juan Pablo Ramos presenting prospects in the northern GOM as part of the Petroleum Prospecting Workshop at UH in Spring 2022



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As we continue with Phase VI of the CBTH project, we would like to thank our active and inactive company sponsors for their support in providing data, software, funding, and knowledge to further student research in geology and geophysics. Your support has provided many opportunities for CBTH students to pursue research projects in the region and your efforts are truly appreciated.

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