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<http://cbth.uh.edu/>

Contacts:

Dr. Paul Mann
pmann@uh.edu

Dr. Alejandro Escalona
alejandro.escalona@uis.no

Project E-mail:
cbthproject@gmail.com

Edited by: Jeff Storms
jeffstormswork@gmail.com

Mailing Address:
312 Science and Research Bldg. 1
Houston, TX 77204
(712) 893-1731



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

CBTH students win top prizes at GeoGulf23

Congratulations to Juan Pablo Ramos and Ruth Beltran, who placed 1st and 3rd, respectively, in the Student Poster Competition at GeoGulf23 on April 23-25. Click here to read more.



Juan Pablo Ramos (left) and Ruth Beltran (right) at GeoGulf23

CBTH students excel at UH Student Research Day

CBTH graduate and undergraduate students recently won key prizes at the 36th Annual EAS Student Research Conference held on April 28. Juan Pablo Ramos won 2nd place in the advanced PhD category, Kenneth Shipper won 1st place in the early PhD and MS category, and Faith Walton won 1st place in the undergraduate category at this year's event. Click here to read more.

Year-end deliverables for sponsor representatives

CBTH Project deliverables for Phase VI, Year 2 were sent to sponsor representatives earlier this year. This release includes all presentations from the CBTH Annual Sponsor Meeting, the year-end report to sponsors, which contains extended abstracts from CBTH researchers, recent publications and presentations, as well as updates to our GIS database, including updated surface grids. We continue to update our archive of presentations and publications on our Sponsor website and on Geopost in real-time throughout the year. Please let us know if you have any questions regarding this year's delivery.



What's New

Phase VII Proposal

Our new CBTH Project Phase VII Proposal (2023-2026) is now online! Click [here](#) to download the PDF.

CBTH Luncheon at IMAGE 2023

The CBTH Project will host a luncheon for our sponsors and colleagues on Tuesday, August 29 during the IMAGE 2023 meeting (location TBD). Check our website for more details as the event approaches.

CBTH Annual Sponsor Meeting

The next CBTH Annual Sponsor Meeting will be held on Friday, October 6, 2023. Please check our website for more details, including RSVP information, as the event approaches.

2023 summer internships

Congrats to CBTH students who received 2023 summer internships:

- o Mohamed Abdelfatah, MS candidate (ExxonMobil)
- o Juan Pablo Ramos, PhD candidate (BP)

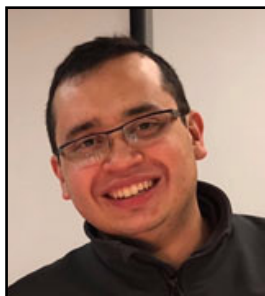
Recent CBTH graduates now working in the oil and gas industry

Congratulations to the following CBTH Phase VI graduates who are now working full-time in the oil and gas industry:

- o Nahid Hasan, PhD 2022, geologist with exploration geology GOM group at BP
- o Nawaz Bugti, PhD 2022, postdoc with XFrac project at UH EAS
- o Bryan Moore, MS 2022, exploration geologist with Caribbean group at TotalEnergies
- o Sean Romito, PhD 2021, development and operations geologist with ConocoPhillips group in Permian Basin
- o Benjamin Miller, MS 2021, exploration geophysicist with ExxonMobil New Ventures group
- o Maddie Bishop, MS 2021, exploration geologist with Arena Exploration;
- o Mei Liu, PhD 2021, geophysicist with TGS
- o Hualing Zhang, PhD 2021, postdoctoral researcher with PetroChina (Beijing) working on the Junggar basin in NW China
- o Jacob Miller, MS 2020, exploration geophysicist with BP GOM group
- o Steve Leslie, PhD 2020, exploration geologist with Repsol Mexican Gulf of Mexico group
- o Marcus Zinecker, PhD 2020, exploration geologist with BP GOM group
- o Tarek Galhom, MS 2020, PhD researcher in carbon capture at the University of Bergen in Norway
- o Jack Kenning, PhD 2020, exploration geologist in New Ventures group at ConocoPhillips



Graduating Students



DR. ANDRES CEDEÑO completed his PhD in petroleum geochemistry and basin modeling at the University of Stavanger in October 2022. Andres previously completed his MS study at UiS with CBTH in 2017. He recently presented his PhD work at GeoGulf23 and is currently working as a consultant with Andy Pepper and the TIPS group with a focus on basin modeling and petroleum geochemistry in Guyana and Suriname.

FAITH WALTON graduated from UH with a BS in May 2023 in geology with a minor in geophysics and a minor in energy and sustainability. Faith worked on scanning and GIS database management for the CBTH Project along with a senior thesis on the opening of the Gulf of California. Faith recently received the first place award for her presentation on the Gulf of California at the 2023 Student Research Day at UH. She will be starting the MS program in geology at Louisiana State University in August 2023 where she will be working as a graduate research assistant with Dr. Sam Bentley on sedimentological studies of the Mississippi Delta.



New Students



JUMOKE AKINPELU is currently a Geoscience Technical Team Lead at ExxonMobil in Lagos, Nigeria, and will be joining the CBTH Project in fall 2023 to begin her PhD study on the Niger delta. Jumoke has an MS degree with distinction in petroleum geoscience from the University of Manchester in the UK.

DANIEL MAYA is an Ecuadorian petroleum geologist who received his BS degree in geology at the National Polytechnic School of Ecuador where he is currently the president of the AAPG Young Professionals of Ecuador. He will begin his PhD study with the CBTH Project in fall 2023 where his study will focus on mapping and basin modeling of the Argentinian margin.





Departing Staff

DR. LEI SUN completed his postdoc with CBTH in January 2023, where he managed the CBTH GIS database and conducted research. In June 2023, he joined the seismotectonics research group at the University of Science and Technology in Hefei, China. His research at CBTH used tectonic geomorphology and gravity modeling to constrain the recent deformation on the islands of Hispaniola and Puerto Rico in the northeastern Caribbean that was manifested by the 2020 Puerto Rico and 2021 Haiti earthquakes.



New Staff



DR. JOSÉ MIGUEL GOROSABEL ARAUS joined the CBTH Project in March 2023 as a post-doctoral researcher. He completed his PhD at the Universidad Complutense of Madrid on the forearc structure, stratigraphy, and petroleum potential of the southern margin of the Dominican Republic. Dr. Gorosabel manages the CBTH GIS database and assists in the annual data release to project sponsors. His research projects at CBTH include seismic interpretation and basin modeling in the Caribbean and on the rifted-passive margins of the Equatorial and South Atlantic Oceans.

Recent Meetings

Project sponsors have access to all meeting presentations from 2005 to present, with updates added shortly after each conference. Please visit our website for more information.

AAPG Salt Basins Technical Group Meeting (January 31, 2023)

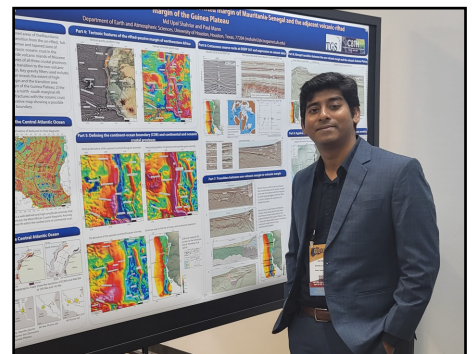
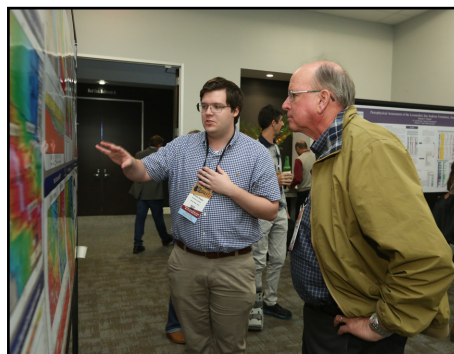
- o Nawaz Bugti - Triassic-Jurassic opening history of the Gulf of Mexico basin based on improved mapping of the continent-ocean transition



Recent Meetings

GeoGulf 2023 (April 23-25, 2023)

- o Ruth Beltran and Paul Mann - Comparing Early Cretaceous, syn-rift reservoir rocks underlying the slope and ultradeepwater areas of the Campos Basin, offshore Brazil (Poster)
- o Nawaz Bugti - Constraints on Gulf of Mexico Oxfordian Acme 161 to Valanginian Acme 138 source rock UEP imposed by basin margin onlap/erosion and basin center oceanic crust age (Invited Oral Presentation)
- o Andres Cedeño - Petroleum systems Of The carbonate platform areas of the southern GoM: South Florida, the Greater Peten Basin of Guatemala-Belize, and the Yucatán and Chiapas areas of Mexico (Oral Presentation)
- o Sharon Cornelius - Comparison of the characteristics of Cretaceous salt deposition in Brazil with the Jurassic salt deposition in the Gulf of Mexico (Invited Oral Presentation)
- o Md Nahidul Hasan, Andrew Pepper, and Paul Mann - Estimates of thermal stress and expelled petroleum from Mesozoic-Cenozoic potential source rocks, southern Gulf of Mexico (Invited Oral Presentation)
- o Juan Pablo Ramos and Paul Mann - Direct hydrocarbon indicators and basin modeling of late Cretaceous source rocks in the deepwater area of Panama and Colombia, Caribbean Sea (Poster)
- o Upal Shahriar and Paul Mann - Using gravity filters to reveal the non-volcanic and recessed rifted margin of Mauritania and its along-strike transition with the protruding volcanic margin of the Guinea Plateau (Poster)
- o Kenneth Shipper and Paul Mann - Basin modeling of the Guyana margin: Does the continent-ocean boundary mark an outer limit for deepwater exploration? (Poster)



PhD graduate Nahid Hasan (left), PhD student Kenneth Shipper (center), and PhD student Upal Shahriar (right) present at GeoGulf23.



Recent Meetings

Geoscience Online Webinar, hosted by Katalyst Data Management (April 26, 2023)

- o Jeff Storms, Jose Miguel Gorosabel Araus, Lei Sun, and Paul Mann - Geopost integration with the CBTH Project (Click here to view a recording of the meeting)



UH EAS 36th Annual Student Research Conference and Alumni & Industry Open House (April 28, 2023)

- o Juan Pablo Ramos - Crustal structure of the Colombian basin and significance for Caribbean tectonic history and its hydrocarbon potential
- o Upal Shahriar - Defining the crustal structure of the rifted-passive margin of Mauritania and implications for its hydrocarbon potential
- o Kenneth Shipper - Basin modeling based on crustal structure reveals productive hydrocarbon trends along the Guyana-Suriname rifted-passive margin
- o Faith Walton - Structural restoration and driving forces for the Oligocene-Recent opening of the Gulf of California

Houston Geological Society Technical Breakfast (May 3, 2023)

- o Juan Pablo Ramos and Paul Mann - Shallow to ultra-deepwater hydrocarbon provinces and key exploration plays of the southwestern Caribbean Sea

Geoscience Online Webinar ASIAPAC, hosted by Katalyst Data Management (April 26, 2023)

- o Jeff Storms, Jose Miguel Gorosabel Araus, Lei Sun, and Paul Mann - Geopost integration with the CBTH Project



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.

IMAGE 2023 (August 28 – September 1)

- o Mohamed Abdelfatah - Relationships between Red Sea opening directions, crustal types and thicknesses, evaporite distribution, and hydrocarbon potential (Poster Presentation, Aug. 29 from 11:35 AM to 12:00 PM; Session ID - STUD P6, Session Title - Student Session 6)
- o Ruth Beltran - Rift and thermal sagging controls on the distribution and thickness of the Barremian-Aptian Lagoa Feia formation which hosts a source-reservoir unit, deepwater Campos basin, Brazil (Poster Presentation, Aug. 29 from 10:20 AM to 10:45 AM; Session ID - STGM P2, Session Title - Extensional Tectonics and Salt-related Systems)
- o Sharon Cornelius - Southwestward tilting of the Espirito Santo-Campos-Santos salt basin, Brazil, and its implications for source rock potential in the external rift zone (Oral Presentation, Aug. 30 from 2:10 PM to 2:35 PM; Session ID - BMPS 3, Session Title - Petroleum Systems Case Studies 2)
- o José Miguel Gorosabel Araus - Hydrocarbon prospectivity in the San Pedro offshore basin of the Dominican Republic based on identification of Upper Cretaceous and Lower Cenozoic source rock intervals (Poster Presentation, Aug. 29 from 11:10 AM to 11:35 AM; Session ID - STUD P6, Session Title - Student Session 6)
- o Juan Pablo Ramos Vargas - Basement architecture and deep-water stratigraphy of the SW Caribbean and its implications for untapped petroleum systems in the Colombian Basin (Poster Presentation, Aug. 29 from 11:10 AM to 11:35 AM; Session ID - STUD P6, Session Title - Student Session 6)
- o Upal Shahriar - Impact of Jurassic volcanic/non-volcanic margin boundary on HC prospectivity, Northwestern Africa (Poster Presentation, Aug. 29 from 10:45 AM to 11:10 AM; Session ID - STUD P6, Session Title - Student Session 6)
- o Kenneth Shipper - Control of crustal thickness, type, and burial history on heat flow and petroleum basin modeling of the Guyana-Suriname rifted-passive margin (Poster Presentation, Aug. 29 from 10:20 AM to 10:45 AM; Session ID - STUD P6, Session Title - Student Session 6)

CBTH Annual Sponsor Meeting (October 6, 2023)

AAPG International Convention & Exhibition (November 6-8, 2023)

GCSSEPM 39th Annual Perkins-Rosen Research Conference (December 4-6, 2023)

- o Paul Mann - The final frontier of deepwater exploration: the continent–ocean transition zone (Oral Presentation, Dec. 4 from 11:30 AM to 12:00 PM; Session IIA: Exploring for Deepwater Giants)
- o Juan Pablo Ramos Vargas - Crustal structure in the Colombian Basin and its control on the distribution of source rock and play fairways in deep and ultra-deep waters of the Caribbean (Poster)



Recent Theses and Dissertations

- Bugti, M.N., 2022, Mesozoic plate reconstruction, salt tectonics, and hydrocarbon potential of the western Gulf of Mexico basin, PhD dissertation, University of Houston, 221 p.
- Hasan, M.N., 2022, Tectonostratigraphy, structural styles, and hydrocarbon prospectivity of the rifted-passive margins of the southern Gulf of Mexico and the Atlantic margin of Morocco, PhD dissertation, University of Houston, 265 p.
- Moore, B., 2022, Subsurface structure, stratigraphy, and hydrocarbon basin modeling of the Barbados Accretionary Prism, Master's thesis, University of Houston, 117 p.

Recent Publications

- Cornelius, S., and Emmet, P., 2022, Difference in overpressure environments for the Western and Central Deepwater Gulf of Mexico, AAPG Bulletin, v. 106, no. 12, p. 2417–2442.
<https://doi.org/10.1306/08182221123>
- 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>
- 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, p. 119-147.
<https://doi.org/10.1016/B978-0-323-91918-0.00016-5>
- Hasan, M.N., Pepper, A., and Mann, P., 2022, Basin-scale estimates of thermal stress and expelled petroleum from Mesozoic-Cenozoic potential source rocks, southern Gulf of Mexico, Marine and Petroleum Geology, 105995. <https://doi.org/10.1016/j.marpetgeo.2022.105995>
- 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, p. 83-117. <https://doi.org/10.1016/B978-0-323-91918-0.00018-9>
- Romito, S., and Mann, P., 2022, Crustal structure of the Camamu-Almada margin along the northeastern rift segment of Brazil from an integration of deep-penetration seismic reflection profiles, refraction, and gravity modeling, Tectonics, v. 41, no. 9, e2021TC007157.
<https://doi.org/10.1029/2021TC007157>
- Zhang, H., and Bird, D., 2022, Detecting hypogenic karst features in the northeastern Delaware Basin, west Texas: Applications of Full Tensor Gradient (FTG) gravity data, Journal of Applied Geophysics, 104889. <https://doi.org/10.1016/j.jappgeo.2022.104889>



Upcoming Publications

- Bugti, M.N., and Mann, P., 2023, Regional source rock thermal stress modeling and map-based charge access modeling of the Port Isabel passive margin foldbelt, northwestern Gulf of Mexico, Interpretation, in press.
- Ramos, J.P., and Mann, P., 2023, Late Cretaceous-Recent tectonostratigraphic evolution of the Yucatan back-arc basin, northern Caribbean Sea, in M. Philippon, J. Collier, P. Mann and Y. Rojas-Agramonte (eds.), A Fresh Look at the Caribbean Plate Geosystems; Geochemistry, Geophysics, Geosystems Special Volume, in press.

Awards

- o 2023 - Faith Walton, Undergraduate, 1st Place Presentation (Undergraduates), UH EAS Student Research Day 2023 (\$400)
- o 2023 - Kenneth Shipper, PhD Candidate, 1st Place Presentation (Early PhD & MS), UH EAS Student Research Day 2023 (\$400)
- o 2023 - Juan Pablo Ramos, PhD Candidate, 2nd Place Presentation (Advanced PhD), UH EAS Student Research Day 2023 (\$500)
- o 2023 - Juan Pablo Ramos, PhD Candidate, UH EAS outstanding graduate work in Geology scholarship (\$500)
- o 2023 - Juan Pablo Ramos, PhD Candidate, 1st Place Student Poster Presentation, GeoGulf23
- o 2023 - Ruth Beltran, PhD Candidate, 3rd Place Student Poster Presentation, GeoGulf23
- o 2022 - Md Nahidul Hasan, PhD Candidate, Best Student Presentation Award, 21st HGS PESGB Africa Conference 2022
- o 2022 - Faith Walton, Undergraduate, Frank L. Theall scholarship (\$1,500)
- o 2022 - Md Nahidul Hasan, PhD Candidate, 1st Place Presentation (Advanced PhD), UH EAS Student Research Day 2022 (\$850)
- o 2022 - Juan Pablo Ramos Vargas, PhD Candidate, 1st Place Presentation (Early PhD & MS), UH EAS Student Research Day 2022 (\$750)
- o 2022 - Md Nahidul Hasan, PhD Candidate, UH EAS outstanding graduate work in Geology scholarship (\$1250)
- o 2022 - Md Nahidul Hasan, PhD Candidate, UH Alumni Association Scholarship (\$1500)
- o 2022 - Mohamed Abdelfatah, PhD Candidate, UH EAS first year PhD in Geology scholarship (\$1000)
- o 2022 - Mohamed Abdelfatah, PhD Candidate, UH Alumni Association Scholarship (\$1500)
- o 2022 - Faith Walton, Undergraduate, UH EAS undergraduate academic excellence in geoscience scholarship (\$1000)
- o 2022 - Juan Pablo Ramos Vargas, PhD Candidate, 1st Place Poster Presentation, 28th Annual Milton B. Dobrin Lecture (\$800)



Thanks to our sponsors!

As we continue into Phase VII of the CBTH Project, we would like to thank our active and inactive company sponsors for their support in providing data and software that has fostered our progress in understanding the hydrocarbon potential conjugate rifted-passive margins in the CBTH study area. Your support has provided many opportunities for CBTH students to pursue research projects in the region, and your support is truly appreciated. We hope to see you at IMAGE in August and at the Annual Sponsors Meeting in October.

Active Sponsors for Phase VI, Year 3



Previous Sponsors (2005 - 2022)



Data Sharing



Technical Support

