Lorena Moscardelli

Curriculum Vitae

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Bureau of Economic Geology
The University of Texas at Austin
P.O. Box
Austin, TX 78713-8924
lorena.moscardelli@beg.utexas.edu

Academic Background

B.Sc. Geological Sciences, Universidad Central de Venezuela, Caracas, 2000
Ph.D. Geological Sciences, The University of Texas at Austin, May 2007

Research/Professional Interests

- Technical manager with broad experience coordinating activities within multidisciplinary teams. Responsible for handling day-to-day project management and communication between geoscientists, engineers, upper management and external stakeholders.

- Studying the role that geoscience research has as part of the energy transition. Particular interest on hydrogen storage within salt formations.

- Utilization of large, basin-wide 3D seismic data sets, and accompanying 2D seismic, well log, outcrop, core and other pertinent geological data sets to understand how continental margins evolve through time and how sediments and structure interact within a variety of sedimentary basins.

- Utilization of biogeochemical tools to unravel the nature of depositional environments within prolific oil and gas basins both onshore and offshore. Linkage to source rock potential and integration with other subdisciplines and subsurface data types.

- Offshore field development activities linked to both geological concept generation and overburden management. Planning for drilling activities and providing geological input for both static and dynamic models.

- Research, conceptualization, development and implementation of G&G workflows to improve oil and gas exploration activities in frontier and mature basins with emphasis on development of exploration technologies.

- Study of gravity induced deposits in general with emphasis in subaqueous

landslides and their influence on deep-water stratigraphy.

- Development of new depositional models for mixed siliciclastic-carbonate systems in deep water environments.

- Education, outreach and community service

Professional Experience

1. ***Research Scientist and Principal Investigator of the State of Texas Advanced Resource Recovery Program (STARR) at The Bureau of Economic Geology, Jackson School of Geosciences – The University of Texas at Austin***
   Austin, Texas (April 2021 – Present)

   - Managing the State of Texas Advanced Resource Recovery (STARR) research program, supervising personnel, engaging with industry partners and defining relevant research projects in collaboration with STARR and BEG personnel.
   - Conducting technical and scientific research and actively pursuing funding opportunities to complement STARR research and funding.
   - Responsibilities include project resourcing, execution, and delivery within budget constraints; supervision of research, technical support staff, students and publication and presentation of research results.
   - A key aspect of this role is to coach and motivate researchers in STARR to raise external funding through grants and contracts, and publish research results.

2. ***Principal Researcher Exploration, Exploration Canada***
   Austin, Texas (November 2020 – March 2021)

   - Exploration geologist working on prospect maturation and regional geology in the Flemish Pass, Newfoundland

3. ***Principal Researcher Exploration, Equinor Shale, Oil and Gas***
   Austin, Texas and Bergen, Norway (October 2019 – October 2020)

   - Global Development Program (leadership succession program) in assignment to Field Development in Drilling and Production Norway (DPN). Deployed as geologist in charge of overburden management activities in the Garantiana field development project in the Tampen-Spur area and as a geologist updating the geological concept of the Asterix field development project in the Vøring Basin (input generation for static and dynamic models of the field).

4. ***Principal Researcher Exploration, Equinor Exploration Technology***

Austin, Texas (June 2013 – October 2019)

- Basin Highs Project (2013-2014): Reconstruction of fluvial depositional environments in the Frøya High (NCS) using seismic geomorphological and seismic stratigraphic techniques. Results were submitted to the Norwegian Petroleum Directorate as part of the successful "Awards of Predefined Areas" (APA) 2014 application.

- Regional Evaluation Technology Project (RET) (2014-2017): Contributions in the development of technologies associated with regional evaluation workflows. Development of regional depositional environment models in offshore Nova Scotia (Shelburne Sub-basin). Results were used as part of the decision-making process to acquire 6,000 sq km of exploration acreage in offshore Nova Scotia in 2015. A new generic deep-water depositional model for mixed siliciclastic-carbonate system was developed and published in the AAPG Bulletin (Moscardelli et al., 2019).

- GoM Exploration (2016): Input to Mexico access team as a specialist on deepwater stratigraphy. Generation of depositional model to risk presence of Cantarell like facies in the Campeche region.

- Task Manager Tectonostratigraphy of Source Rocks (HC2SR) Research Project (2018 - 2019): Conceptualization, design and implementation of a research project that seeks to incorporate innovative biogeochemistry tools using mature and over mature oils as a tool to reconstruct depositional environments and to fingerprint oils/condensates. GOM and NCS case studies.

- University Liaison: Follow up of external consortia work with different universities. Following up on the UT/Equinor Fellowship program.

5. ***Adjunct Professor Central University of Venezuela (UCV) - Geology Department (Ad Hoc)***

   Distance Education Graduate Program (Spring 2018 – Spring 2019)

   - Graduate level course offering: Advance Stratigraphy (Spring) and a Special Topic on Petroleum Geology (Fall)
   - Providing advising and support to graduate students and the UCV Geology department

6. ***Project Leader UNESCO/IGCP 640 - Significance of Modern and Ancient Subaqueous Slope Landslides*** ***www.s4slide.com***
   Austin, Texas (2015 - 2020)

- The IGCP-640 project focuses on facilitating the interaction of scientists, engineers, industry and government representatives, and other parties interested in understanding subaqueous mass movements and their anthropogenic significance. The project concentrates in developing and fostering scientific interchange among students and early career professionals with special emphasis on those individuals from historically underrepresented countries. This project is part of an initiative by the International Geoscience Programme (IGCP) and Unesco.

- Defining strategies to increase the collective interchange of information and knowledge among project participants, as well as the definition of research direction.

- Coordinating yearly activities including workshops, special sessions as part of major scientific meetings and the bi-annual subaqueous landslides symposium.

7. ***Research Associate, Bureau of Economic Geology (UT)***
   Austin, Texas (June 2007 – June 2013)

   - Seismic Interpreter for State of Texas Advanced Resource Recovery Program (STARR) (June 2007 – June 2009) Principal seismic interpreter for Pearl project - Copano Bay, South Texas (MPG Petroleum). Development of subsurface geological model. Prospect identification and mapping.

   - Co-Principal Investigator of the Quantitative Clastic Laboratory Industrial Associates Program (QCL) (June 2009 – June 2013) Responsible for the deep-water component of the research program. Supervisor and co-supervisor of graduate students working for QCL/JSG. Core geographic areas: offshore Trinidad, Venezuela, New Zealand, Morocco, GoM (USA and Mexico) and Norwegian Continental Shelf.

8. ***Lecturer, Jackson School of Geosciences (UT)***
   Austin, Texas (Fall 2009 – Fall 2015)

   - Responsible for designing and teaching “GEO 384G Mapping and Petroleum Workstations” for graduate students and upper division undergraduates. The course seeks to familiarize students with the use of specialized software for subsurface mapping of stratigraphic and structural features within a Petroleum Geology context. The course is designed as a combination of lectures and hands-on exercises that cover the entire spectrum from regional to reservoir scale evaluations and the process of defining exploration prospects.

9. ***Graduate Research Assistant, Bureau of Economic Geology (UT)***
   Austin, Texas (Fall 2003 – Spring 2007).

   - Conducting research on the broader topic of gravity-driven deposition within continental margins around the world as part of PhD work at QCL

10. ***Summer Intern, BHP Billiton***
    Houston, Texas (Summer 2006)

    - Seismic geomorphological analysis of depositional systems in the Atlantis Field (GoM) with emphasis on a Pleistocene gas opportunity. New potential targets were identified within the Pleistocene based on the seismic geomorphological interpretation that was performed as part of this study.

11. ***Summer Intern, OXY Occidental Oil and Gas***
    Houston, Texas (Summer 2005)

    - Application of quantitative seismic geomorphological techniques using 3D seismic data and well control to better understand productive units associated with the Morrow and Chester fluvial systems, Hugoton Embayment (Kansas). The analysis was used to predict areas of better reservoir development and to identify additional drillable prospects.

12. ***Exploration Geologist, Petróleos de Venezuela PDVSA***
    Caracas, Venezuela (August 200 - January 2003)

    - Provided stratigraphic support in projects in the Eastern Venezuela Basin. Seismic-stratigraphic interpretation (North of Monagas and La Blanquilla projects) Generation of new prospects in onshore and offshore Eastern Venezuela (Plataforma Deltana - north of Liza discovery in offshore Guyana).

13. ***Exploration Geologist, RICE & AVENDANOS***
    Caracas, Venezuela (October 2000 - June 2001)

    - Performed biostratigraphic, electrofacies and seismic stratigraphic interpretations that resulted in the generation of paleoenvironmental maps for the Plataforma Deltana region in the offshore area of the Orinoco Delta (Atlantic margin).

14. ***Teaching Assistant, Universidad Central de Venezuela***
    Caracas, Venezuela (July 1997 - October 2000).

- TA Geology Department – Physical Geology. Responsible for laboratory activities with undergraduate students.

Awards, Fellowships and Scholarships

1. **Medal of Merit for Best Paper Related to Canadian Petroleum Geology** (2020) by Canada Society of Petroleum Geologists
2. **Grit Award Individual Category by ALLY** (2020), The Community for the energy workforce of the future
3. **Publication Award** (2010), Bureau of Economic Geology (exemplary publication of scientific impact)
4. **Ed Picou Full Fellowship Grant** (2007), Gulf Coast Section of SEPM
5. **AAPG Grant-in-Aid** (2007), American Association of Petroleum Geologists Foundation
6. **Graduate Student Research Grant** (2005), Geological Society of America
7. **Thomas R. Banks Memorial Scholarship** (2004), San Antonio Area Foundation
8. **Outstanding Student Paper Award** (2004), Hydrology Section AGU
9. **L.Austin Weeks Grant** (2004), American Association of Petroleum Geologists Foundation
10. **Exxon-Mobil Student Grant Participation Award** (2001), AAPG/SEPM Annual Convention
11. **Graduated with distinction** (2000) – Universidad Central de Venezuela
12. **Best Undergraduate Thesis Award** (2000), Universidad Central de Venezuela

External Committee Responsibilities/Professional Activities

1. **Energy, Society and Environment Theme Chair (ICE-2021)**, American Association of Petroleum Geologists, Cartagena, Colombia
2. **General Chair Annual Conference and Exhibition (ACE-2019)**, American Association of Petroleum Geologists, San Antonio Texas
3. **Deep-water Theme Chair** (2017), American Association of Petroleum Geologists Annual Conference and Exhibition – Centennial Celebration, Houston Texas
4. **Project Leader** (2015 – Present), IGCP-640/UNESCO Significance of Modern and Ancient Submarine Landslide (S4SLIDE) www.s4slide.com
5. **Session Co-Chair** (2018), Effects of mass movements on the sedimentological environment, 20th International Sedimentological Congress
6. **Session Co-Chair** (2015), Submarine Landslides and Their Consequences: A Multidisciplinary and Integrative Approach, AGU Fall Meeting, San Francisco, California

7. **Session Co-Chair** (2012), Gulf of Mexico Geology – East to West, GCAGS/GCSSEPM 62nd Annual Convention and Exhibition, Austin, Texas
8. **Session Chair** (2010), Mass Wasting Events and Related Sediments, 18th International Sedimentological Congress, Mendoza, Argentina
9. **Session Chair** (2010), Mass Movements and Their Consequences for Deepwater Exploration and Production, AAPG/SEPM, Annual Meeting, New Orleans, Louisiana
10. **Conference Convener** (2009), IGCP-511/UNESCO 4th International Symposium on Submarine Mass Movements and Their Consequences, Austin, Texas
11. **Session Co-Chair** (2006), Recent Advances in Deepwater and Shelf Siliciclastic Facies Models: Implications for Reservoir Characterization, AAPG/SEPM Annual Meeting, Houston, Texas

JSG/UT Committee Responsibilities/Professional Activities

1. **Council Member** (2021-2026), Graduate Student Council, Jackson School of Geosciences
2. **Committee Member** (2021-2024), GAAC-Grants, Appointments, and Awards Committee, Bureau of Economic Geology
3. **Committee Member** (2021-2022), Structural Faculty Search, Jackson School of Geosciences
4. **Committee Member** (2022), Postdoctoral Search, Jackson School of Geosciences
5. **Committee Member** (2021- 2022), Energy Research Scientist Search, Bureau of Economic Geology
6. **Committee Member** (2021), Administrative Assistant Search, Bureau of Economic Geology
7. **Committee Member** (2021), Steering Committee Equinor/UT Fellowships, JSG/PGE
8. **Member** (2011-2013), Graduate Student Council, Jackson School of Geosciences,
9. **Session Chair** (2010), Mass Wasting Events and Related Sediments, 18th International Sedimentological Congress, Mendoza, Argentina
10. **Session Chair** (2010), Mass Movements and Their Consequences for Deepwater Exploration and Production, AAPG/SEPM, Annual Meeting, New Orleans, Louisiana
11. **Conference Convener** (2009), IGCP-511/UNESCO 4th International Symposium on Submarine Mass Movements and Their Consequences, Austin, Texas
12. **Committee Member** (2009 - 2013), Alumni Council, Jackson School of Geosciences
13. **Committee Member** (2007-2008), Energy Search Committee, Jackson School of Geosciences

Publications

Books (editor)

1. Lintern, D.G., Mosher, D.C., **Moscardelli, L.**, Bobrowsky, L.P.T., Campbell, C., Chaytor, J.D., Clague, J.J., Georgiopoulou, A., Lajeunesse, P., Normandeau, A., Piper, D.J.W., Scherwath, M., Stacey, C. and Turmel, D., 2018, Subaqueous mass movements and their consequences: Assessing geohazards, environmental implications and economic significance: 8th International Symposium: GSL Special Publication, SP477
2. Lamarche, G., Mountjoy, G., Bull, S., Hubble, T., Krastel, S., Lane, E., Micallef, A., **Moscadelli**, **L.**, Mueller, C., Pecher, I., Woelz, S., 2016, Submarine mass movements and their consequences: 7th International Symposium: Springer, v. 41, DOI 10.1007/978-3-319-20979-1
3. Mosher, D. C., Shipp, C., **Moscardelli**, **L.**, Chaytor, J. D., Baxter, C. D. P., Lee, H. J., and Urgeles, R., 2010, Submarine mass movements and their consequences: 4th International Symposium: Springer, v. 28, DOI 10.1007/978-90-481-3071-9, 775 p.

Book Chapters and Sections (* denotes student author)

1. Clare, M., Chaytor, J., Dabson, O., Gamboa, D., Georgiopoulou, A., Eady, H., Hunt, J., Jackson, C., Katz, O., Krastel, S., León, R., Micallef, A., Moernaut, J., Moriconi, R., **Moscardelli, L.**, Mueller, C., Normandeau, A., Patacci, M., Steventon, M., Urlaub, M., Völker, D., Wood, L. and J. Zane, 2018, A consistent approach for the morphometric characterization of subaqueous landslides, *in* Lintern, D.G. et al., eds., Subaqueous mass movements and their consequences: Assessing geohazards, environmental implications and economic significance: 8th International Symposium: GSL, SP477, p.
2. *Cardona, S., Wood, L., Day-Stirrat, R. and **L. Moscardelli**, 2016, Sealing capacity of mass transport deposits: Depositional model for a deepwater reservoir in the jubilee gas field, eastern Gulf of Mexico, *in* Lamarche, G. et al., eds., Submarine mass movements and their consequences: 7th International Symposium: Springer, v. 41, p. 27-37.
3. *Prieto, M.I., **Moscardelli**, **L.** and L. Wood, 2016, Exploring the influence of deepwater currents as potential triggers for slope instability, in Lamarche, G. et al., eds., Submarine mass movements and their consequences: 7th International Symposium: Springer, v. 41, p. 331-338.
4. Mosher, D. C., **Moscardelli**, **L.**, Shipp, C., Chaytor, J. D., Baxter, C. D. P., Lee, H. J., and Urgeles, R., 2010, Submarine mass movements and their consequences, *in* Mosher, D. C. et al., eds., Submarine mass

movements and their consequences: 4th International Symposium: Springer, v. 28, p. 1–8.

5. **Moscardelli**, **L.**, Hornbach, M., and Wood, L. J., 2010, Tsunamigenic risk associated with mass transport complexes in offshore Trinidad and Venezuela, in Mosher, D. C., Shipp, R. C., Moscardelli, L., Chaytor, J. D., Baxter, C. D. P., Lee, H. J. and Urgeles, R., eds., Submarine mass movements and their consequences: 4th International Symposium: Springer, v. 28, p. 733–744.

Journal Articles (* denotes student author)

Publications on Continental Margin Evolution and Tectonostratigraphy

1. *Salazar, M., **Moscardelli**, **L.** and L. Wood, 2018, 2D stratigraphic modelling, reconstructing high-relief clinoforms in the northern Taranaki Basin: AAPG Bulletin, v. 102, no. 12, p. 2409-2446
2. *Salazar, M., **Moscardelli**, **L.**, Wood, L. and D. Dunlap, 2016, Utilising clinoform architecture to understand the drivers of basin margin evolution: A case study in the Taranaki Basin, New Zealand: Basin Research, v. 28, pp. 840-865
3. **Moscardelli, L.**, Wood, L., and D. Dunlap, 2012, Shelf-edge deltas along structurally complex margins: A case study from eastern offshore Trinidad, AAPG Bulletin, v. 96, no. 8, p. 1483-1522
4. *Salazar, M., **Moscardelli, L.**, Fisher, W. L., and Lorente, M. A., 2011, Tectonostratigraphic evolution of the Morichito piggyback basin, Eastern Venezuelan Basin: Marine and Petroleum Geology, v. 28, p. 109–125.
5. *Garciacaro, E., Escalona, A., Mann, P., Wood, L., **Moscardelli, L.**, and S. Sullivan, 2011, Structural controls on Quaternary deepwater sedimentation, mud diapirism, and hydrocarbon distribution within the actively evolving Columbus foreland basin, eastern offshore Trinidad: Marine and Petroleum Geology, v.28, p. 149-176.

Publications Subaqueous Landslides and Current Controlled Processes

6. *Prieto, M.I., **Moscardelli, L.** and L. Wood (2021) Deep-water sedimentary bedforms in a mobile substrate terrain: Examples from the central Gulf of Mexico Basin: Interpretation, v. 9. No. 2, pp. SB33-SB48
7. **Moscardelli, L.** and Wood, L., 2016, Morphometry of mass-transport deposits as a predictive tool: GSA Bulletin, v. 128, no. 1/2, pp. 47-80
8. Dunlap, D., Wood, L. and **L. Moscardelli**, 2013, Seismic geopmorphlogy of early North Atlantic sediment waves, offshore northwest Africa: Interpretation, v.1, issue 1, SA75-SA91.
9. **Moscardelli**, **L.**, and Wood, L. J., 2008, New classification system for

mass transport complexes in offshore Trinidad: Basin Research, v. 20, no. 1, p. 73–98.

10. **Moscardelli, L.**, Wood, L. J., and P. Mann, 2006, Mass-transport complexes and associated processes in the offshore area of Trinidad and Venezuela: AAPG Bulletin, v. 90, no. 7, p. 1059– 1088.

Publications on Mars

11. **Moscardelli, L.**, 2014, Boulders of the Vastitas Borealis Formation: Potential origin and implications for an ancient martian ocean: GSA Today, v.24, no. 2, pp. 4-10
12. **Moscardelli, L.**, Dooley, T., Dunlap, D., Jackson, M. and L. Wood, 2012, Deep-water polygonal fault systems as terrestrial analogs for large-scale Martian polygonal terrains, GSA Today, v. 22, no. 8, p. 4-6
13. **Moscardelli, L.** and L. Wood, 2011, Deep-water erosional remnants in eastern offshore Trinidad as terrestrial analogs for teardrop-shaped islands on Mars: Implications for outflow channel formation: Geology, v.39, no.7, p. 699-702

Publications on Mixed Siliciclastic-Carbonate Deposits

14. **Moscardelli, L.**, Ochoa, J., Lunt, I. and L. Zahm, 2019, Mixed siliciclastic-carbonate systems and their impact for the development of deepwater turbidites in continental margins: A case study from the Late Jurassic to Early Cretaceous Shelburne Sub-basin in offshore Nova Scotia: AAPG Bulletin, v.103, no. 10, p. 2487-2520

Publications on Petroleum Geology and Prospectivity

15. *Cardona, S, Wood, L., **Moscardelli, L.** and D. Dunlap (2020) Cannibalization and sealing of deepwater reservoirs by mass-transport complexes – The Jubilee Field, Gulf of Mexico: Interpretation, v. 8, no. 4, pp. SV17-SV30
16. **Moscardelli, L.**, *Ramnarine, S. K., Wood, L. and D. Dunlap, 2013, Seismic geomorphological analysis and hydrocarbon potential of the Lower Cretaceous Cromer Knoll Group, Heidrun field, Norway: AAPG Bulletin, v. 97, no. 8, pp. 1227-1248.

Other Publications

17. Parra, M., **Moscardelli, L.**, and Lorente, M. A., 2003, Late Cretaceous anoxia and lateral microfacies changes in the Tres Esquinas Member, La Luna Formation, Western Venezuela: Palaios, v. 18, no. 4, p. 321–333.

Conference Abstracts (* denotes student author)

1. Duffy, O.B., **Moscardelli, L.**, Hudec, M. and M.W. Shuster, 2021, Assessing the hydrogen storage potential of onshore Texas salt structures (abs.): GeoGulf2021, Austin, Texas
2. **Moscardelli, L.** and W. Ambrosse, 2021, State of Texas Advanced Resource Recovery Program (STARR) and Its Role Supporting Knowledge Sharing and Creation if the Permian Basin, Eastern Shelf and Forth Worth Basin (abs.): South Western AAPG Annual Convention, Dallas, Texas
3. **Moscardelli, L.**, Ochoa, J., Zahm, L. and I. Lunt, 2016, Mixed carbonate-siliciclastic systems: Implications for the development of deepwater turbidites in the Nova Scotian margin (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, Calgary, Canada
4. **Moscardelli, L.** and J. Ochoa, 2015, Influence of the Montagnais mass transport event in the Nova Scotia continental margin (abs.): American Association of Petroleum Geologists European Regional Conference & Exhibition, Lisbon, Portugal
5. Cardona, S., Wood, L. and **L. Moscardelli**, 2015, Sealing capacity of mass transport deposits: Depositional model for a deepwater reservoir in the jubilee gas field, eastern Gulf of Mexico (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, Denver, Colorado
6. *Prieto, M.I., **Moscardelli**, **L.** and L. Wood, 2014, Investigating modern ultra deepwater sedimentary processes in the central Gulf of Mexico using high resolution geophysical data: Offshore Technology Conference, OTC 25210-MS
7. **Moscardelli**, **L.**, 2014, Relevance of oil and gas exploration activities for planetary science: The Martian ocean hypothesis case study (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, Houston, Texas
8. *Salazar, M., **Moscardelli, L.** and L. Wood, 2014, Utilizing clinoform architecture and stratigraphic forward modeling to understand the drivers of basin margin evolution (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, Houston, Texas
9. Wood, L. and **L. Moscardelli**, 2014, Healing-phase, top-fill traps associated with mass transport deposits (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, Houston, Texas
10. **Moscardelli, L.**, T. Dooley, D. Dunlap, L. Wood and M. Jackson, 2012, Deep-water polygonal fault systems as terrestrial analogs for Martian polygonal terrains (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition
11. **Moscardelli, L.** and L. Wood, 2012, Deepwater erosional shadow remnants as terrestrial analogs for teardrop-shaped islands on Mars: Implications for outflow channel formation (abs.): American Association

of Petroleum Geologists Annual Convention & Exhibition, Long Beach, California

12. *Salazar, M., **L. Moscardelli** and l. Wood, 2012, Morphologic variability of clinoforms within the Giant Foresets Formation of the northern Taranaki Basin, New Zealand (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, Long Beach, California
13. *Prieto, M., **L. Moscardelli** and L. Wood, 2012, Sedimentary and erosional processes in a deepwater setting: An ultra-high resolution study of multiple regions in the ultra-deep water of the eastern Gulf of Mexico (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, Long Beach, California
14. *Ramnarine, S., **Moscardelli, L.** and Wood, L., 2011, Late Cretaceous-age, half graben basin, turbidite fills in the North Sea Heidrun Field, Mid-Norwegian continental shelf (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, Houston, Texas
15. *Salazar, M., **Moscardelli, L.** and Wood, L., 2011, Shelf-edge architecture and source-to-sink dynamics in the northern Taranaki Basin, New Zealand (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, Houston, Texas
16. *Salazar, M., **Moscardelli, L.**, Fisher, W. L., and Lorente, M. A., 2010, Tectonostratigraphic evolution of the Morichito piggyback basin, eastern Venezuelan basin (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, New Orleans, Louisiana
17. *Davila, A., **Moscardelli, L.**, and Wood, L. J., 2010, Structural domains in the eastern offshore area of Trinidad/Venezuela and their influence on paleo-Orinoco shelf-edge delta architectures (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, New Orleans, Louisiana
18. *Singh, K. A., Wood, L. J., and **Moscardelli, L.**, 2009, Geometry and nature of modern and ancient mas transport deposits (abs.): American Association of Petroleum Geologists Annual Convention, Denver, Colorado
19. Dunlap, D. B., **Moscardelli, L.**, Hornbach, M., and Wood, L. J., 2009, Potential causal mechanisms for MTC generation from the Northwest African Shelf (abs.): American Association of Petroleum Geologists Annual Convention, Denver, Colorado
20. **Moscardelli, L.**, Wood, L. J., Torres-Vargas, Ricardo, Bermúdez, Juan, and López-Leyva, Gerardo, 2008, Processes of late Tertiary-age mass transport and associated deposits along the eastern Mexico margin, southern Gulf of Mexico (abs.): American Association of Petroleum Geologists Annual Convention, San Antonio, Texas
21. Dunlap, D. B., Wood, L. J., and **Moscardelli, L.**, 2008, Mass transport deposits in offshore Morocco, Savi Haute Mer area (abs.): American Association of Petroleum Geologists Annual Convention, San Antonio, Texas

22. Wood, L. J., **Moscardelli, L.**, Bermúdez, Juan, Caraveo, C., Ambrose, W. A., and López-Leyva, Gerardo, 2008, Source-to-sink linkages between clinoform architecture and deepwater deposits, eastern Mexico margin, southern Gulf of Mexico (abs.): American Association of Petroleum Geologists Annual Convention, San Antonio, Texas
23. **Moscardelli, L.**, Wood, L. J., and Dunlap, D. B., 2007, Mass transport processes in worldwide continental margins and their significance for tsunamigenic hazards (abs.): Geological Society of America Abstracts with Programs, v. 39, no. 6.
24. Mann, P., Wood, L., Garciacaro, E., Escalona, A., **Moscardelli, L.**, and Sullivan, S., 2007, 3D anatomy of the Columbus Foreland Basin, Eastern Offshore Trinidad (abs.): American Association of Petroleum Geologists Annual Convention, Long Beach, California.
25. **Moscardelli, L.** and Wood, L. J., 2006, Seismic geomorphology of mass transport deposits and controls on formation and character, eastern offshore Trinidad (abs.): American Association of Petroleum Geologists Annual Convention, Houston, Texas
26. **Moscardelli, L.**, Woods, D., and Wood, L. J., 2006, Quantitative seismic geomorphology study in fluvial systems—a new approach (abs.): American Association of Petroleum Geologists Annual Convention, Houston, Texas
27. **Moscardelli, L.**, and Wood, L., 2006, Identification and classification of mass transport complexes in offshore Trinidad/Venezuela and their potential anthropogenic impact as tsunamigenic hazards (abs.), in AGU Proceedings Fall Meeting, San Francisco/California USA.
28. **Moscardelli, L.**, and Wood, L., 2006, Morphometry of mass transport complexes in offshore Trinidad (abs.), in External controls on deep water depositional systems; climate, sea-level and sediment flux, London, UK.
29. **Moscardelli, L.**, 2006, Mass transport complexes in offshore Trinidad and world wide analogs (abs.), in Houston Geological Society.
30. **Moscardelli, L.**, and Wood, L., 2005, Visualization technology and quantitative morphometrics of mass transport complexes along the continental margin of Trinidad, West Indies (abs.), in SEPM Research Conference Proceedings, Houston, Texas, USA.
31. **Moscardelli, L.**, Wood, L. J., and Mann, Paul, 2004, Debris flow distribution and controls on slope to basin deposition, offshore Trinidad (abs.): American Association of Petroleum Geologists Annual Convention, Dallas, Texas
32. **Moscardelli, L.**, Wood, L. J., and Mann, P., 2004, Debris flow architecture and processes offshore Trinidad: implications for basin fill in tectonically active margins (abs.), in AGU Proceedings Fall Meeting, San Francisco.
33. **Moscardelli, L.** and M.A. Lorente, 2003, High-impact cycle-stratigraphy (HIC): a method applied in a Miocene-Pleistocene subsurface section, Northern Monagas, Eastern Venezuela Basin: AAPG International Meeting, Barcelona, Spain

34. Parra, M., **Moscardelli, L.** and M.A. Lorente, 2001, Tectonic and paleoenviromental changes at the end of La Luna Formation Sea and its exploration implications: American Association of Petroleum Geologists Annual Convention, Denver, Colorado
35. **Moscardelli, L.** and M.A. Lorente, 2001, Seismostratigraphic Study of a Miocene-Pleistocene Subsurface Interval, Northern Monagas, Eastern Venezuelan Basin: American Association of Petroleum Geologists Annual Convention, Denver, Colorado

Workshops

1. Flaig, P., Hattori, K., Ambrose, W., Fu, Q., Dejarnett, B., Ko, L., Radjef, D., Carr, D., Hasiotis, S., Ogiesoba, C. and **L. Moscardelli**, 2021, Mixed carbonate-siliciclastic reservoir systems of the Strawn Group: Focus – Upper Strawn, King and Stonewall counties, Texas: State of Texas Advanced Resource Recovery (STARR) workshop, 26th October, 2021, Austin, Texas

Contract Reports

1. Hudec, M. R., Jackson, M. P. A., Dooley, Tim, Wagner, Bryce, McDonnell, Angela, Pequeno, Monica, Norton, Ian, and **Moscardelli**, L., 2008, Applied Geodynamics Laboratory annual report to Industrial Associates for 2008: slide set 27: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for Anadarko, BHP Billiton, BP, CGGVeritas, Chevron, Cobalt, ConocoPhillips, Devon, ENI, ExxonMobil, Fugro, GX Technology, Hess, IMP, Maersk, Marathon, Mariner, Murphy, Nexen, Noble, Pemex, Petrobras, PGS, Repsol-YPF, Samson, Saudi Aramco, Shell, StatoilHydro, TGS-Nopec, Total, WesternGeco, and Woodside, CD-ROM.

Undergraduate Thesis

Seismostratigraphic study of a Miocene-Pleistocene subsurface interval, northern Monagas, eastern Venezuelan Basin.

Dissertation

Mass transport processes and deposits, and their role in continental margin development.

Lecturing and Panels

1. Potential for Carbon Capture Use and Storage (CCUS) and Hydrogen in Latin America and the Caribbean: Co-chair, American Association of Petroleum Geologists Energy Opportunites Series, 10-12 November, 2021
2. 2020 “A Year of Grief and Resilience” a seminar for GeoWomen of Calgary, 18 May 2021
3. Interview with Lorena Moscardelli, Equinor: AAPG Science and Technology Showcase Published Monday, 01 June, 2020
4. Deep-water mixed siliciclastic-carbonate systems a lecture for the AAPG Science and Technology Showcase series (HERE)
5. From mass transport deposits to Mars: 10 years later - the journey: invited speaker, Dallas Geological Society, Dallas, Texas, 2014
6. The economics of diversity—competing for and leveraging employee diversity in a global petroleum industry: invited panelist, American Association of Petroleum Geologists Annual Convention, New Orleans, Louisiana, April 14, 2010.
7. Cultural differences: people who have been successful at leveraging cultural differences: invited panelist, 2009 Women’s Global Leadership Conference in Energy and Technology, Houston, Texas, November 3–4, 2009.
8. Mass transport complexes in offshore Trinidad and world wide analogs: presented at Houston Geological Society International Dinner, Houston, Texas, March 2006.

Graduate Student Committee Participation

Graduate Student Supervision

PhD Students (primary supervisor):

1. Fritz Palacios Albujar, The University of Texas at Austin, 2023 expected
   3D Stratigraphic framework. Sediment routing systems and tectonic influence: Mixed siliciclastic-carbonate Cisco Group, Eastern Shelf of the Permian Basin

2. Kiara Gomez, The University of Texas at Austin, 2022 expected
   Early to Middle Jurassic redox conditions: Implications from redox-sensitive trace metals, mercury (Hg) and carbon isotope (13dC)

3. Maria I. Prieto, The University of Texas at Austin, 2016
   Sediment gravity-driven versus bottom-current-controlled processes and interactions in the central GoM and comparison with global systems

4. Migdalys Salazar, The University of Texas at Austin, 2014
   The impact of shelf margin geometry and tectonics on shelf-to-sink sediment dynamics and resultant basin fill architectures

MSc Students (primary supervisor)

1. Sarika Ramnarine, The University of Texas at Austin, 2011
   Late Cretaceous turbidites, Heidrun Field, Norwegian Continental Shelf

2. Migdalys Salazar, The University of Texas at Austin, 2008
   Seismic and stratigraphic interpretation of the Morichito Sub Basin, eastern Venezuelan basin

MSc Students (co-supervisor (CS)/ committee member (CM)):

3. Anmar Davila, The University of Texas at Austin, 2010
   Sand distribution along shelf-edge deltaic systems: a case study from eastern offshore Trinidad (CS)

4. Kadira Singh, The University of Texas at Austin, 2010
   Geometry and nature of modern and ancient mass transport deposits worldwide (CM)

5. Sebastian Cardona, The University of Texas at Austin, 2015
   Fabric development and pore-throat reduction in a mass transport deposit in the Jubilee gas field, eastern Gulf of Mexico: consequences for the sealing capacity of MTDs (CM)

6. Katherine Shover, The University of Texas at Austin, 2016
   Mass balance of martian sedimentary fans valleys (CM)

7. Mario Gutierrez, The University of Texas at Austin, 2018
   Systematic lithologic characterization of Pleistocene Mass-Transport Deposits, Mississippi Canyon of the Northern GoM (CM)

PhD Students (Committee Member)

8. Parvaneh Karimi, The University of Texas at Austin, 2015
   Seismic interpretation using predictive painting

9. Lucia Torrado, University of Houston, 2018
   Tectonostratigraphic controls on petroleum system elements in passive margin settings: Studies of the eastern Nicaraguan Rise and the deep-water, Foz do Amazonas basin, Brazil

10. Rachelle Kernen, The University of Texas at El Paso, 2019

The origin of sedimentary inclusions in an allochthonous salt canopy; Patawarta diapir, South Australia

PhD Students (Qualifying Exams / Wild Card)

11. Cassandra Browne, The University of Texas at Austin, 2012
Constraints on fault and fracture mechanics in the upper oceanic crust

Peer-Review Engagements

Journals

AAPG Bulletin
Marine and Petroleum Geology
Marine Geology
Basin Research
Geology
Interpretation
Sedimentary Geology
GSA Bulletin
JSR
Earth and Planetary Science
Geological Magazine
Island Arc
Marine Geophysical Research
Sedimentology
Earth-Science Review
Journal of the Geological Society
Revista Mexicana de Ciencias Geologicas

AAPG Special Publications
SEPM Special Issue
Subaqueous Mass Movement Volumes
GCAGS Volumes
GCSSEPM Volumes
Book Proposals

Scientific Proposals

IODP Proposal
NERC Urgency Application
FWO Proposal