

**PETER B. FLEMINGS**

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**EDUCATION**

Ph.D. 1990 Geology, Cornell University: minors in structural mechanics and geodynamics  
M.S. 1987 Geology, Cornell University  
B.A. 1984 Geology, Dartmouth College

**PROFESSIONAL EXPERIENCE**

2020-present Leonidas T. Barrow Centennial Chair in Mineral Resources, The University of Texas at Austin  
2015-2020 John A. and Katherine G. Jackson Chair in Energy and Mineral Resources, The University of Texas at Austin  
2013-2015 Visiting Research Scientist, Woods Hole Oceanographic Institute (June-August)  
2007-present Professor, Department of Geological Sciences, The University of Texas at Austin  
2007-2015 Jackson Chair of GeoSystems, The University of Texas at Austin  
2007-2015 Research Professor, Texas Institute of Geophysics and Bureau of Economic Geology, The University of Texas at Austin  
2009-2012 Graduate Adviser, Department of Geological Sciences, The University of Texas at Austin  
2003-2007 Professor of Geosciences, Pennsylvania State University  
2002-2003 Visiting Scientist, Massachusetts Institute of Technology, Department of Civil and Environmental Engineering  
1998-2007 Co-Director of the Petroleum GeoSystems Initiative, Pennsylvania State University  
1997-2003 Associate Professor of Geosciences, Pennsylvania State University  
1993-1997 Assistant Professor of Geosciences, Pennsylvania State University  
1992-1993 Research Scientist and Crosby Lecturer, Massachusetts Institute of Technology  
1991-1992 Associate Research Scientist, Lamont-Doherty Geological Observatory  
1991 Visiting Scientist, Exxon Production Research Company  
1990-1991 Post-Doc. Associate, Lamont-Doherty Geological Observatory  
1983 Geologist, Comp. Minera Autlan, Otongo Hgo., México  
1982-1983 Geologist, Refinadora Costarricense De Petróleo, San Juan, Costa Rica

**HONORS**

2022 UTIG: Director's Circle of Excellence  
2021 UTIG: Director's Circle of Excellence  
2016 Jackson School of Geosciences Joseph C. Walter Jr. Excellence Award  
2015-2016 American Geophysical Union, Chair of the Asahiko Taira International Scientific Ocean Drilling Research Prize Committee  
2011-2016 UT Institute for Geophysics Director's Circle of Excellence Award  
2015 Tinker Family BEG Publication Award  
2014 UT Institute for Geophysics Outstanding Researcher Award  
2014 Marine and Petroleum Geology Certificate for Reviewing Excellence  
2014 Bureau of Economic Geology Author Achievement Award  
2015-2017 Methane Hydrate Advisory Comm. (Advisory Committee to the Secretary of Energy) (Member)  
2014-2015 Methane Hydrate Advisory Comm. (Advisory Committee to the Secretary of Energy (Chair)  
2013 Methane Hydrate Advisory Comm. (Advisory Comm. to the Secretary of Energy) (Co-chair)  
2012 Chair: 2nd Gordon Research Conference on Hydrates, March 18-23, 2012, Ventura, CA  
2010 Adviser to Energy Secretary S. Chu's BP Macondo Well Integrity Team  
2010 Vice Chair: 1st Gordon Research Conference on Hydrates

2008	Bureau of Economic Geology Author Achievement Award
2007-2008	JOI-USSAC Distinguished Lecturer
2006	National Academy of Sciences Kavli Frontiers of Science Fellow and Speaker
2006	AAPG Distinguished Lecturer
2005	Co-Chief Scientist, IODP Expedition 308 – Gulf of Mexico, Hydrogeology
2003	Penn State EMS College Mitchell Award for Innovation in Teaching
2001	Best Paper Award, Cookman and Flemings, <i>STORMSED. Computers and Geosciences</i> 27 (6): 647-674.
1997-present	Geological Society of America Fellow
1996	Penn State EMS College Wilson Teaching Award
1995	Best Paper, J.C. Cam Sproule Memorial Award, Alexander and Flemings, 1995, <i>Geologic Evolution of a Plio-Pleistocene Salt Withdrawal Mini-basin: Block 330, Eugene Island, South Addition, offshore Louisiana</i> , <i>AAPG Bulletin</i> 79 (12): 1737-1756.
1994-1997	Shell Faculty Fellow
1992	Crosby Distinguished Lecturer at MIT
1991	Best Paper Award, <i>Mountain Geologist</i> – Flemings, P.B., Nelson, S. N., 1991, <i>Paleogeography of the Paleocene Wind River Basin</i>
1986	John McMullen Graduate Fellowship for academic record
1983-1984	Member Casque and Gauntlet Honor Society, Dartmouth College

## PUBLICATIONS

h-index: 42 (Google Scholar)

i10-index: 146, since 2017: 102 (Google Scholar)

\* indicates graduate student advisee

+ indicates post-doc advisee or supervised staff

° indicates undergrad advisee

<sup>3</sup> indicates graduate student co-advisee

## Books

**Flemings, Peter B.**, 2021, *A Concise Guide to Geopressure: Origin, Prediction, and Applications*, Cambridge University Press. University Printing House, Cambridge CB2 8BS, United Kingdom, DOI: 10.1017/9781107326309.

## Papers in Refereed Journals

1. +You, K., **Flemings, P. B.**, Bhandari, A.R., Heidari, M., Germaine, J., 2022, The role of creep in geopressure development. *Petroleum Geoscience*, 28, petgeo 2021-064, <https://doi.org/10.1144/petgeo2021-064>
2. Zablocki, M., Germaine, J. T., Plumb, R., & **Flemings, P. B.** (2022). The impact of clay fraction on the strength and stress ratio (K0) in Gulf of Mexico mudrocks and quartz silt mixtures: implications for borehole stability and fracture gradient. *Petroleum Geoscience*, 28(2), petgeo2021-056.
3. Daigle, H., Fang, Y., Phillips, S.C., **Flemings, P. B.**, 2022, Pore structure of sediments from Green Canyon 955 determined by mercury intrusion. *AAPG Bulletin*, 106 (5), 1051-1069. <https://doi.org/10.1306/02262120123>
4. +Fang, Y., **Flemings, P. B.**, Daigle, H., Phillips, S.C., O'Connell, J., 2022, Permeability of methane hydrate-bearing sandy silts in the deepwater Gulf of Mexico (Green Canyon Block 955). *AAPG Bulletin*, 106 (5), 1071-1100. <https://doi.org/10.1306/08102121001>
5. +Fang, Y., **Flemings, P. B.**, Germaine, J.T, Daigle, H., Phillips, S.C., O'Connell, J., 2022, Compression behavior of hydrate-bearing sediments. *AAPG Bulletin*, 106 (5), 1101-1126. <https://doi.org/10.1306/01132221002>
6. Phillips, S.C., **Flemings, P. B.**, You, K., Waite, W., 2022, Thermodynamic insights into the production of methane hydrate reservoirs from depressurization of pressure cores. *AAPG Bulletin*, 106 (5), 1025-1049. <https://doi.org/10.1306/08182120216>

7. <sup>+</sup>Santra, S., **Flemings, P. B.**, Heidari, M., You, K., 2022, Occurrence of high-saturation gas hydrate in a fault-compartmentalized anticline and the role of seal, Green Canyon, abyssal northern Gulf of Mexico. AAPG Bulletin, 106 (5), 981-1003. <https://doi.org/10.1306/08182120149>
8. Yoneda, J., Jin, Y., Muraoka, M., Oshima, M., Suzuki, K., Waite, W., **Flemings, P. B.**, 2022, Comprehensive pressure core analysis for hydrate-bearing sediments from Gulf of Mexico Green Canyon Block 955, including assessments of geomechanical viscous behavior and nuclear magnetic resonance permeability. AAPG Bulletin, 106 (5), 1143-1177. <https://doi.org/10.1306/04272120204>
9. <sup>\*</sup>Meazell, K., **Flemings, P. B.**, 2022, The evolution of seafloor venting from hydrate-sealed gas reservoirs. Earth and Planetary Science Letters. Volume 579, 2022, 117336, ISSN 0012-821X <https://doi.org/10.1016/j.epsl.2021.117336>.
10. Crutchley, G. J., Mountjoy, J. J., Hillman, J. I. T., Turco, F., Watson, S., **Flemings, P. B.**, et al., 2021, Upward-doming zones of gas hydrate and free gas at the bases of gas chimneys, New Zealand's Hikurangi margin. Journal of Geophysical Research: Solid Earth, 126, e2020JB021489. <https://doi.org/10.1029/2020JB021489>
11. <sup>+</sup>You, K., Summa, L., **Flemings, P. B.**, Santra, M., & Fang, Y., 2021, Three-dimensional free gas flow focuses basin-wide microbial methane to concentrated methane hydrate reservoirs in geological system. Journal of Geophysical Research: Solid Earth, 126, e2021JB022793. <https://doi.org/10.1029/2021JB022793>
12. <sup>+</sup>You, K., **Flemings, P. B.**, 2021, Methane hydrate formation and evolution during sedimentation. Journal of Geophysical Research: Solid Earth, 126, e2020JB021235. <https://doi.org/10.1029/2020JB021235>
13. <sup>\*</sup>Hoogvorst, JJ, Nikolinakou, MA, Harrold, TWD, Fernandez, O, **Flemings, P.B.**, Marcuello, A., 2021, Geologically constrained evolutionary geomechanical modelling of diapir and basin evolution: A case study from the Tarfaya basin, West African coast. Basin Res.; 33: 2049– 2068. <https://doi.org/10.1111/bre.12547>
14. <sup>+</sup>Heidari, M., Nikolinakou, M. A., Hudec, M.R, **Flemings, P.B.**, 2021, Impacts of vertical salt welding on pore pressure, stresses, and deformation near the weld. Marine and Petroleum Geology, 133: 105259. <https://doi.org/10.1016/j.marpetgeo.2021.105259>
15. <sup>+</sup>Bhandari, A., **Flemings, P.B.**, Hofmann, R., 2021, The dependence of shale permeability on confining stress and pore pressure. Journal of Natural Gas Science and Engineering, 92: 104008. <https://doi.org/10.1016/j.jngse.2021.104008>
16. Daigle, H., Cook, A., Fang, Y., Bihani, A., Song, W., **Flemings, P. B.**, 2020, Gas-driven tensile fracturing in shallow marine sediments. Journal of Geophysical Research: Solid Earth, 125, e2020JB020835. <https://doi.org/10.1029/2020JB020835>
17. <sup>+</sup>Heidari, M., Nikolinakou, M. A., & **Flemings, P. B.** ,2020, Modified Cam-Clay Model for Large Stress Ranges and Its Predictions for Geological and Drilling Processes. Journal of Geophysical Research: Solid Earth, 125, e2020JB019500. <https://doi.org/10.1029/2020JB019500>
18. <sup>\*</sup>Meazell, K.P., **Flemings, P.B.**, Santra, M., Johnson, J.E., 2020, Sedimentology and stratigraphy of a deep-water gas hydrate reservoir in the northern Gulf of Mexico. AAPG Bulletin ; 104 (9): 1945–1969. doi: <https://doi.org/10.1306/05212019027>
19. <sup>+</sup>Santra, M., **Flemings, P.B.**, Scott, E., Meazell, K.P., 2020, Evolution of gas hydrate-bearing deep-water channel-levee system in abyssal Gulf of Mexico: Levee growth and deformation. AAPG Bulletin ; 104 (9): 1921–1944. <https://doi.org/10.1306/04251918177>
20. <sup>+</sup>Thomas, C., Phillips, S.C, **Flemings, P.B.**, Santra, M., Hammon, H., et al., 2020, Pressure coring operations during The University of Texas-Gulf of Mexico 2-1 (UT-GOM2-1) Hydrate Pressure Coring Expedition in Green Canyon Block 955, northern Gulf of Mexico. AAPG Bulletin ; 104 (9): 1877–1901. <https://doi.org/10.1306/02262019036>
21. Boswell, R., Collett, T.S., Cook, A., **Flemings, P.B.**, 2020, Introduction to Special Issue: Gas Hydrates in Green Canyon Block 955, deep-water Gulf of Mexico: Part I. AAPG Bulletin ; 104 (9): 1843–1846. <https://doi.org/10.1306/bltnintro062320>
22. <sup>+</sup>Fang, Y., **Flemings, P. B.**, Daigle, H., Phillips, S.C, Meazell, K.P., You, K., 2020, Petrophysical properties of the Green Canyon Block 955 hydrate reservoir inferred from reconstituted sediments: Implications for hydrate formation and production. AAPG Bulletin ; 104 (9): 1997-2028. <https://doi.org/10.1306/01062019165>

23. **Flemings, P. B.**, Phillips, S.C., Boswell, R., Collett, T.S., Cook, A., et al., 2020, Pressure coring a Gulf of Mexico deep-water turbidite gas hydrate reservoir: Initial results from The University of Texas–Gulf of Mexico 2-1 (UT-GOM2-1) Hydrate Pressure Coring Expedition. *AAPG Bulletin* ; 104 (9): 1847–1876. <https://doi.org/10.1306/05212019052>
24. \*Murphy, Z. W., DiCarlo, D. A., **Flemings, P. B.**, & Daigle, H., 2020, Hydrate is a nonwetting phase in porous media. *Geophysical Research Letters*, 47, e2020GL089289. <https://doi.org/10.1029/2020GL089289>
25. Chen, X.J., Espinoza, D.N., **Flemings, P.B.**, Luo, J., Tisato, N., 2020, Pore-Scale Evidence of Ion Exclusion during Methane Hydrate Growth and Evolution of Hydrate Pore-Habit in Sandy Sediments, *Marine and Petroleum Geology.*, Volume.117, 104340 <https://doi.org/10.1016/j.marpetgeo.2020.104340>
26. Daigle, H., Reece, J. S, **Flemings, P.B.**, 2020, A modified Swanson method to determine permeability from mercury intrusion data in marine muds, *Marine and Petroleum Geology*, Volume 113, article no. 104155, <https://www.sciencedirect.com/science/article/pii/S0264817219306075>
27. \*Meyer, D.W., **Flemings, P.B.**, You, K., DiCarlo, D., 2020, Gas flow by invasion percolation through the hydrate stability zone, *Geophysical Research Letters*. <https://doi.org/10.1029/2019GL084380>
28. +Phillips, S.C., **Flemings, P.B.**, Holland, M.E., Schultheiss, P.J., Waite, W.F., Jang, J., Petrou, E.G., and Hammon, H., 2020. High concentration methane hydrate in a silt reservoir from the deepwater Gulf of Mexico, *AAPG Bulletin*, doi:10.1306/01062018280
29. \*Darnell, K.N., **Flemings, P.B.**, DiCarlo, D., 2019, Nitrogen-Driven Chromatographic Separation During Gas Injection Into Hydrate-Bearing Sediments, *Water Resources Research*, online. doi:10.1029/2018WR023414
30. Ruari, J., Day-Stirrat R.J., Bryndzia, L.T., Schleicher, A.M., Adriaens R., Hofmann, R., **Flemings P.B.** 2019, Hydration behavior by X-ray diffraction profile fitting of smectite-bearing minerals in a Plio-Pleistocene mudrock from Eugene Island, Gulf of Mexico; *Marine and Petroleum Geology*, Volume 102, pages 86-100, <https://dx.doi.org/10.1016/j.marpetgeo.2018.12.008>.
31. Daigle, H., Reece, J. S., **Flemings, P.B.**, 2019, Evolution of the percolation threshold in muds and mudrocks during burial, *Geophysical Research Letters.*, Volume 46, 8064-8073, doi:10.1029/2019GL083723.
32. +You, K., **Flemings, P.B.**, Malinverno, A., Collett, T.S., Darnell, K., 2019, Mechanisms of methane hydrate formation in geological systems, *Reviews of Geophysics*, <https://doi.org/10.1029/2018rg000638>.
33. +Nikolinakou, M.A., **Flemings, P.B.**, Heidari, M., Hudec, M.R, 2019, Stress and deformation in plastic mudrocks overturning in front of advancing salt sheets; Implications for system kinematics and drilling, *Rock Mechanics Rock Engineering*. <https://doi.org/10.1007/s00603-019-11852-2>.
34. +Heidari, M., Nikolinakou, M. A., Hudec, M. R., **Flemings, P. B.**, 2019, Influence of a reservoir bed on diapirism and drilling hazards near a salt diapir: a geomechanical approach. *Petroleum Geoscience*, 25(3), 282–297. doi: <https://doi.org/10.1144/petgeo2018-113>.
35. +Phillips, S.C., **Flemings, P.B.**, You, K., Meyer, D.W., Dong, T., 2019, Investigation of in situ salinity and methane hydrate dissociation in coarse-grained sediments by slow, stepwise depressurization, *Marine and Petroleum Geology*, Volume 109, 2019, Pages 128-144, ISSN 0264-8172, <https://doi.org/10.1016/j.marpetgeo.2019.06.015>.
36. \*Pinkston, F.W., **Flemings, P.B.**, 2019, Overpressure at the macondo well and its impact on the deepwater horizon blowout. *Scientific Reports (Nature Publisher Group)*, 9, 1-11. doi:<http://dx.doi.org/10.1038/s41598-019-42496-0>.
37. †Bhandari, A.R., **Flemings, P.B.**, Ramiro-Ramirez, S., Hofmann, R., Polito, P.J., 2019, Gas and liquid permeability measurements in Wolfcamp samples, *Fuel*, Volume 236, Pages 1026-1036, ISSN 0016-2361, <https://doi.org/10.1016/j.fuel.2018.09.038>.
38. Day-Stirrat R.J., Bryndzia L.T., Schleicher A.M., Adriaens R., Hofmann R., **Flemings P.B.** 2019: Hydration behavior by X-ray diffraction profile fitting of smectite-bearing minerals in a Plio-Pleistocene mudrock from Eugene Island, Gulf of Mexico; *Marine and Petroleum Geology*; <https://dx.doi.org/10.1016/j.marpetgeo.2018.12.008>.
39. \*Meyer, D.W., **Flemings, P.B.**, DiCarlo, D., 2018, Effect of gas flow rate on hydrate formation within the hydrate stability zone, *Journal of Geophysical Research: Solid Earth*, 123, 6263–6276. <https://doi.org/10.1029/2018JB015878>.
40. Nole, M., Daigle, H., Cook, A.E., Malinverno, A., and **Flemings, P.B.**, Burial-driven methane recycling in marine gas hydrate systems, *Earth and Planetary Science Letters*, Volume 499, pp. 197-204, October 2018.

41. <sup>+</sup>You, K., **Flemings, P.B.**, 2018. Methane hydrate formation in thick sandstones by free gas flow, *Journal of Geophysical Research: Solid Earth*, 123, 4582–4600. <https://doi.org/10.1029/2018JB015683>.
42. <sup>+</sup>Nikolinakou, M.A., **Flemings, P.B.**, Heidari, M., Hudec, M.R., 2018, Stress and Pore Pressure in Mudrocks Bounding Salt Systems, *Rock Mechanics Rock Engineering*. <https://doi.org/10.1007/s00603-018-1540-z>.
43. <sup>\*</sup>Gao, B., **Flemings, P.B.**, Nikolinakou, M.A., Saffer, D.M., Heidari, M., 2018, Mechanics of fold-and-thrust belts based on geomechanical modeling, *Journal of Geophysical Research: Solid Earth*, 123, 4454–4474. <https://doi.org/10.1029/2018JB015434>.
44. <sup>\*</sup>Meyer, D.W., **Flemings, P.B.**, DiCarlo, D., You, K., Phillips, S.C., Kneafsey, T.J., 2018, Experimental investigation of gas flow and hydrate formation within the hydrate stability zone, *Journal of Geophysical Research: Solid Earth*, <https://doi.org/10.1029/2018JB015748>.
45. <sup>+</sup>Heidari, M., Nikolinakou, M.A., **Flemings, P.B.**, 2018, Coupling geomechanical modeling with seismic pressure prediction, *Geophysics*, 83(5), B253-B267. <https://doi.org/10.1190/geo2017-0359.1>.
46. <sup>+</sup>Nikolinakou M.A., Heidari M., **Flemings, P.B.**, Hudec M.R., 2018, Geomechanical modeling of pore pressure in evolving salt systems, *Marine and Petroleum Geology*, 93:272-286, [doi:https://doi.org/10.1016/j.marpetgeo.2018.03.013](https://doi.org/10.1016/j.marpetgeo.2018.03.013).
47. <sup>+</sup>Bhandari, A.R., **Flemings, P.B.**, Hofmann, R., and Polito, P.J., 2018, Stress-dependent In-situ Gas Permeability in the Eagle Ford Shale: Transport in Porous Media. doi: 10.1007/s11242-018-1021-6.
48. **Flemings, P.B.**, Saffer, D.M., 2018, Pressure and Stress Prediction in the Nankai Accretionary Prism: A Critical State Soil Mechanics Porosity-based approach, *Journal of Geophysical Research*, doi:10.1002/2017JB015025.
49. <sup>+</sup>You, K., **Flemings, P.B.**, 2018, Methane hydrate formation in thick sand reservoirs: 1. Short-range methane diffusion, *Marine and Petroleum Geology*, 89, 428-442, [doi:http://dx.doi.org/10.1016/j.marpetgeo.2017.10.011](http://dx.doi.org/10.1016/j.marpetgeo.2017.10.011).
50. Deirieh, A., Cook, Chang, I.Y., Whittaker, M.L., Weigand, S., Keane, D., Rix, J., Germaine, J.T., Joester, D., **Flemings, P.B.**, 2018, Particle arrangements in clay slurries: The case against the honeycomb structure, *Applied Clay Science*, doi:http://dx.doi.org/10.1016/j.clay.2017.11.010.
51. Hillman, J.I.T., Cook, A., Daigle, H., Nole, M., Malinverno, A., Meazell, K., **Flemings, P.B.**, 2017, Gas hydrate reservoirs and gas migration mechanisms in the Terrebonne Basin, Gulf of Mexico, *Marine and Petroleum Geology*, 86, 1357-1373, doi:http://dx.doi.org/10.1016/j.marpetgeo.2017.07.029.
52. <sup>+</sup>Luo, G., Hudec, M.R., **Flemings, P.B.**, <sup>+</sup>Nikolinakou, M.A., 2017, Deformation, stress, and pore pressure in an evolving supra-salt basin, *Journal of Geophysical Research: Solid Earth*, 122, doi:10.1002/2016JB013779.
53. <sup>\*</sup>Darnell, K.N., **Flemings, P.B.**, DiCarlo, D., 2017, Subsurface injection of combustion power plant effluent as a solid-phase carbon dioxide storage strategy, *Geophysical Research Letters*, Volume 44, 5521-5530, doi:10.1002/2017GL073663.
54. <sup>+</sup>Nikolinakou, M.A., <sup>+</sup>Heidari, M., Hudec, M.R., **Flemings, P.B.**, 2017, Initiation and growth of salt diapirs in tectonically stable settings: upbuilding and megaflaps, *American Association of Petroleum Geologists Bulletin*, V. 101, No. 6 (June 2017), pp. 887-905, doi:10.1306/09021615245.
55. <sup>\*</sup>Gao, B., **Flemings, P.B.**, 2017, Pore pressure within dipping reservoirs in overpressured basins, *Marine and Petroleum Geology*, 80, 94-111, doi:http://dx.doi.org/10.1016/j.marpetgeo.2016.11.014.
56. Casey, B., Germaine, J.T., **Flemings, P.B.**, Fahy, B.P., 2016, In situ stress state and strength in mudrocks, *Journal of Geophysical Research: Solid Earth*, 121, doi:10.1002/2016JB012855.
57. <sup>+</sup>Heidari, M., <sup>+</sup>Nikolinakou, M.A., Hudec, M. R., **Flemings, P.B.**, 2016, Geomechanical analysis of a welding salt layer and its effects on adjacent sediments, *Tectonophysics*, v. 683, p. 172-181, doi:10.1016/j.tecto.2016.06.027.
58. Adams, A.L., Nordquist, T.J., Germaine, J.T., and **Flemings, P.B.**, 2016, Permeability Anisotropy and Resistivity Anisotropy of Mechanically Compressed Mudrocks, *Canadian Geotechnical Journal*, doi:10.1139/cgj-2015-0596.
59. <sup>\*</sup>Cronin, M., **Flemings, P.B.**, <sup>+</sup>Bhandari, A., 2016, Dual-permeability microstratigraphy in the Barnett Shale, *Journal of Petroleum Science and Engineering*, Vol. 142, pp. 119-128, doi:10.1016/j.petrol.2016.02.003.
60. <sup>+</sup>You, K., DiCarlo, D., **Flemings, P.B.**, 2016, Impact of gravity on hydrate saturation in gas-rich environments, *Water Resour. Res.*, Vol. 52, pp. 1265-1285, doi:10.1002/2015WR017975.

61. <sup>†</sup>Heidari, M., <sup>†</sup>Nikolinakou, M.A., **Flemings, P.B.**, Hudec, M.R., 2016, A simplified stress analysis of rising salt domes, *Basin Research*, doi:10.1111/bre.12181.
62. <sup>†</sup>Nikolinakou, M.A., **Flemings, P.B.**, Hudec, M.R., 2016, Modeling of shales in salt-hydrocarbon systems, *Rock Mechanics Rock Engineering*, v. 49, p. 699–705, doi 10.1007/s00603-015-0863-2.
63. <sup>\*</sup>Darnell, K.N., **Flemings, P.B.**, 2015, Transient seafloor venting on continental slopes from warming-induced methane hydrate dissociation, *Geophysical Research Letters*, Vol. 42, 10,765–10,772, doi:10.1002/2015GL067012.
64. <sup>†</sup>You, K., DiCarlo, D., **Flemings, P.B.**, 2015, Quantifying hydrate solidification front advancing using method of characteristics, *Journal of Geophysical Research: Solid Earth*, 120, 6681–6697, doi: 10.1002/2015JB011985.
65. <sup>†</sup>Bhandari, A., **Flemings, P.B.**, <sup>†</sup>Polito, P.J., <sup>\*</sup>Cronin, M.B., Bryant, S.L., 2015, Anisotropy and Stress Dependence of Permeability in the Barnett Shale, *Transport in Porous Media*, Vol. 108, Issue 2, pp 393–411, DOI 10.1007/s11242-015-0482-0.
66. Casey, B., Germaine, J.T., **Flemings, P.B.**, Fahy, B.P., 2015, Estimating Horizontal Stresses for Mudrocks under One-dimensional Compression, *Marine and Petroleum Geology*, 178–186, doi:10.1016/j.marpetgeo.2015.02.001.
67. **Flemings, P.B.**, Reece, J.S., Ditekof, J., Atkins, C.C., Sawyer, D., 2015, Data Report: Particle Size Analysis of Sediments in the Nankai Trough, IODP Expedition 319 Site C0009A. In Saffer, D., McNeill, L., Byrne, T., Araki, E., Toczko, S., Eguchi, N., Takahashi, K., and the Expedition 319 Scientists, *Proc. IODP, 319: Tokyo (Integrated Ocean Drilling Program Management International, Inc.)*, doi:10.2204/iodp.proc.319.203.2015.
68. <sup>†</sup>You, K., Kneafsey, T.J., **Flemings, P.B.**, <sup>†</sup>Polito, P.J., Bryant, S.L., 2015, Salinity-Buffered Methane Hydrate Formation and Dissociation in Gas-Rich Systems, *J. of Geophys. Res. Solid Earth*, 120, 643–661, doi: 10.1002/2014JB011190.
69. Luo, G., **Flemings, P.B.**, Hudec, M.R., <sup>†</sup>Nikolinakou, M.A., 2015, The role of pore fluid overpressure in the substrates of advancing salt sheets, ice glaciers and critical-state wedges, *Journal of Geophysical Research*, DOI: 10.1002/2014JB011326.
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### Service Bulletins Manuals, and Circulars

1. \*Darnell, K., Andrews, M., **Flemings, P.B.**, Germaine, J.T., Polito, P., Brooks, D., 2012, The Temperature 2 Pressure Probe (T2P): Technical Manual.
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4. **Flemings, P.B.**, Grotzinger, J.P., Morris, J.E., 1996, Strata 2.1: A Stratigraphic Modeling Package User's Manual. (wrote software, co-wrote manual)
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### PRESENTATIONS

#### Presented Abstracts & Papers at Professional Meetings

1. Nikolinakou, M., **Flemings, P.B.**, Saffer, D., The impact of splay fault initiation and evolution on the stress state in subduction-accretion complexes, AGU Fall Meeting Abstracts, T006-04, December 2020, Virtual
2. You, K., Santra, M., Summa, L., **Flemings, P.B.**, Fang, Y., Focused Free Gas Flow Forms Concentrated Methane Hydrate in Coarse-Grained Layers in Geological Systems, AGU Fall Meeting Abstracts, OS029-0007, December 2020, Virtual
3. Bhandari, A., Ramiro-Ramirez, S., Daigle, H., **Flemings, P.B.**, Reed, R., Permeability measurement and prediction in samples from the Wolfcamp Fm.(Delaware Basin), West Texas, AGU Fall Meeting Abstracts, MR014-04, December 2020, Virtual
4. Van der Linden d'Hooghvorst, J.J., Nikolinakou, M.A., Fernández-Bellón, H., Harrold, T., **Flemings, P.B.**, Marcuello, A., Geologically constrained geomechanical evolutionary modelling of diapir and basin evolution: Tarfaya basin, West Africa, Third EAGE Workshop on Pore Pressure Prediction, 14-16 December 2020, Virtual

5. Heidari, M., Nikolinakou, M.A., **Flemings, P.B.**, 2020, Coupling a 3D geomechanical model with seismic velocity to predict pressure and the full stress tensor, Third EAGE Workshop on Pore Pressure Prediction, 14-16 December 2020, Virtual
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7. Ramiro-Ramirez, S., Bhandari, A.R, **Flemings, P.B.**, Reed, R.M., Porosity and Permeability Heterogeneity in the Upper Wolfcamp, Delaware Basin, West Texas: Implications for Production, Unconventional Resources Technology Conference, 20–22 July 2020, virtual
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217. \*Dugan, B.E., **Flemings, P.B.**, 2001, Pleistocene to Present Stability of the Continental Slope, Offshore New Jersey, AGU Fall Meeting 2001, San Francisco, CA.
218. **Flemings, P.B.**, \*Comisky, J., \*Liu, X., \*Lupa, J.A., 2001, Stress-Controlled Porosity in Overpressured Sands at Bullwinkle GC65, Deepwater Gulf of Mexico, Offshore Technology Conference, Houston, TX.
219. \*Liu, X., **Flemings, P.B.**, 2001, Fracture-dominated Fluid Flow in Gas Hydrate System on Blake Ridge: Fluid Flux, Permeability and Gas Column Height, AGU Fall Meeting 2001, San Francisco, CA.
220. \*Liu, X., **Flemings, P.B.**, 2001, Overpressure and Fluid Flow on The Blake Ridge, AGU Spring Meeting 2001, Boston, MA.
221. \*Dugan, B., **Flemings, P.B.**, 2000, Rapid Sediment Loading, Lateral Fluid Flow, and Slope Stability on the US East Coast Margin, AGU Fall Meeting 2000, San Francisco, CA.
222. \*Dugan, B., **Flemings, P.B.**, 2000, The New Jersey margin: compaction and fluid flow, Geofluids III - 2000, Barcelona, Spain.
223. Finkbiener, T., Zoback, M.D., \*Stump, B.B., **Flemings, P.B.**, 2000, Stress, pore pressure, and dynamically constrained hydrocarbon columns in the South Eugene Island 330 Field, Gulf of Mexico, AAPG Annual Meeting, New Orleans, LA.
224. **Flemings, P.B.**, \*Dugan, B., \*Lupa, J.A., 2000, Rapid Loading in Sedimentary Basins: Implications for State of Stress, Fluid Migration, Slope Stability, and Cold Seeps. Invited speaker, AGU Fall Meeting 2000, San Francisco, CA.
225. **Flemings, P.B.**, \*Metzger, J.M., Poulsen, C.J., 2000, Middle Miocene vs. late Miocene-Pliocene Sequences of Offshore New Jersey: Controls of Long Term Sea Level Change on Stratigraphic Architecture, GSA 35th Annual Meeting, New Brunswick, NJ.
226. \*Lupa, J.A., **Flemings, P.B.**, 2000, Flow Focusing in Turbidites on the Gulf of Mexico Slope. AGU Fall Meeting 2000, San Francisco, CA.

227. \*Stump, B.B., **Flemings, P.B.**, 2000, Observation and theory of overpressures in dipping structures: implications for drilling [shallow water flow, circulation loss, fracture completion], Overpressure 2000 Conference, London, England.
228. \*Stump, B.B., **Flemings, P.B.**, 2000, Overpressure and fluid flow in dipping structures of the offshore Gulf of Mexico EI 330 field. Geofluids III – 2000, Barcelona, Spain.
229. Ashbaugh, J., **Flemings, P.B.**, 1999, Dynamic reservoir characterization of the ST295 field offshore Louisiana: Reservoir simulation, acoustic modeling, and time-lapse seismic refines geologic model and illuminates dynamic behavior, SEG Annual Meeting, Houston, TX.
230. \*Dugan, B., **Flemings, P.B.**, 1999, Compaction and Fluid Flow in Offshore New Jersey Slope Sediments ODP Legs 150 and 174A: Implications for Geochemical Heterogeneity and Slope Stability, AGU Fall Meeting, San Francisco, CA.
231. \*Dugan, B., **Flemings, P.B.**, 1999, Using ODP Data to Understand the Hydrodynamics of Fluid Flow Along Passive Continental Margins, COMPLEX Conference on Multiple Platform Abstracts Abstracts, p. 116, COMPLEX Meeting, Vancouver, VC, Canada.
232. \*Dugan, B., **Flemings, P.B.**, Mountain, G., Elsworth, D., 1999, Overpressure on the New Jersey Continental Margin: Evidence from ODP Sites 903 and 1073, AGU Spring Meeting, Boston.
233. <sup>3</sup>Finkbeiner, T., Zoback, M.D., \*Stump, B.B., **Flemings, P.B.**, 1998, In situ stress, pore pressure and hydrocarbon migration the South Eugene Island field, Gulf of Mexico, In: Alan Mitchell and Dominique Grauls Eds., Overpressures in petroleum exploration workshop proceedings, Memoire 22, Elf EP-Editions, Pau, France, p. 103-110.
234. **Flemings, P.B.**, \*Stump, B.B., <sup>3</sup>Finkbeiner, T., Zoback, M.D., 1998, How Pressure, Stress and Column Height Interact to Control Secondary Migration Within Geopressured Strata, extended abstract presented at AAPG Hedberg Research Conference entitled, “Integration of Geologic Models for Understanding Risk in the Gulf of Mexico”, September 20-24, 1998, Galveston, TX
235. **Flemings, P.B.**, \*Stump, B.B., <sup>3</sup>Finkbeiner, T., Zoback, M.D., 1998, Pressure Differences Between Overpressured Sands and Bounding Shales of the Eugene Island 330 field Offshore Louisiana, U.S.A. with Implications for Drilling and Completion, extended abstract, presented at American Association of Drilling Engineers AADE Industry Forum entitled, “Pressure Regimes in Sedimentary Basins and Their Prediction”, September 2-4, 1998, Del Lago Resort, Lake Conroe, TX.
236. **Flemings, P.B.**, V. <sup>3</sup>Siahaan, P.J. Hicks, and B.B. \*Stump, 1998, Secondary migration via fracture permeability in shales: illuminating the relationship between pressure and column height, In: Alan Mitchell and Dominique Grauls Eds., Overpressures in petroleum exploration workshop proceedings, Memoire 22, Elf EP-Editions, Pau, France, p. 111-116.
237. Hicks, P.J., **Flemings, P.B.**, Ashbaugh, J.P., <sup>30</sup>Bennett, M.H., 1998, Numerical Modeling of Secondary Migration in Faults, extended abstract presented at AAPG Hedberg Research Conference entitled, “Integration of Geologic Models for Understanding Risk in the Gulf of Mexico”, September 20-24, 1998, Galveston, TX
238. \*Stump, B., **Flemings, P.B.**, 1998, Predicting Overpressure from Shale Porosity in Eugene Island 300, Offshore Louisiana, AAPG Annual Meeting, Salt Lake City, UT.
239. \*Stump, B.B., **Flemings, P.B.**, <sup>3</sup>Finkbeiner, T., and M.D. Zoback, 1998, Pressure differences between overpressured sands and bounding shales of the Eugene Island 330 field offshore Louisiana, U.S.A. with implications for fluid flow induced by sediment loading, In: Alan Mitchell and Dominique Grauls Eds., Overpressures in petroleum exploration workshop proceedings, Memoire 22, Elf EP-Editions, Pau, France, p. 83-92.
240. \*Stump, B.B., **Flemings, P.B.**, Karig, D.E., 1998, Gaining Insight into Pressure History with Shale Deformation Experiments, extended abstract, presented at American Association of Drilling Engineers AADE Industry Forum entitled, “Pressure Regimes in Sedimentary Basins and Their Prediction”, September 2-4, 1998, Del Lago Resort, Lake Conroe, TX
241. \*Cookman, J.L., \*Metzger, J.M. **Flemings, P.B.**, Slingerland, R.L., 1997, A Numerical Model of Sedimentation from Suspension in a Buoyant Plume, AGU Meeting, San Francisco, CA.
242. \*Deshpande, A., **Flemings, P.B.**, 1997, Insights into the nature of lithologic fluctuation from a stochastic sedimentation model, GSA Today Meeting, Salt Lake City, UT.

243. **Flemings, P.B.**, \*Burkhart, T., \*Hoover, A., Hicks, P., 1997, Impedance change in the K40 sand, South Timbalier 295, offshore Louisiana: Applications to 4D seismic analysis, SEG Annual Meeting, Dallas, TX.
244. \*Burkhart, T., **Flemings, P.B.**, \*Hoover, A.R., Nelson, S.E., 1996, 4D Seismic Analysis of the LF-sand, EI-330 Field, Offshore Louisiana, AAPG Annual Meeting, San Diego, CA.
245. \*Deshpande, A., **Flemings, P.B.**, 1996, Quantifying 3-D Heterogeneity in Fluvial/Deltaic Incised-Valley/Lowstand Wedge Environments with 3-D Seismic Data, GSA Annual Meeting, Denver, CO.
246. \*Deshpande, A., **Flemings, P.B.**, Huang, J., 1996, Quantifying One and Two Dimensional Lateral Heterogeneities in Fluvio-Deltaic Reservoirs using 3-D Seismic Data, AAPG Annual Meeting, San Diego, CA.
247. <sup>3</sup>Finkbeiner, T., \*Stump, B.B., Zoback, M.D., **Flemings, P.B.**, 1996, Least Principal Stress, Pore Pressure and Overburden in Plio-Pleistocene Strata of the South Eugene Island 330 Field, Gulf of Mexico, GRI Pressure Compartmentalization Workshop, Stillwater, OK.
248. **Flemings, P.B.**, \*Hoover, A.R., \*Burkhart, T., and Nelson, S.E., 1996, A Case Study of Amplitudes in Drained Pay: The EI-330 LF Sand, In: Pacht, J.A., Sheriff, R.E., and Perkins, B.F., eds., Stratigraphic Analysis Utilizing Geophysical, Wireline and Borehole Technology for Petroleum Exploration and Production: Gulf Coast Section Society of Economic Paleontologists and Mineralogists Foundation Seventeenth Annual Research Conference, p. 99-110.
249. **Flemings, P.B.**, \*Hoover, A.R., \*Burkhart, T.D., Nelson, S.E., 1996, A Case Study of Amplitudes in Drained Pay: The EI-330 LF Sand, 4-D Semi-Annual Consortium Meeting, Houston, TX.
250. **Flemings, P.B.**, \*Stump, B.B., Karig, D., 1996, Pressure-Porosity Relationships from Field Experimental Data: Towards Predicting Overpressures in Plio-Pleistocene Gulf Coast Strata, GRI Pressure Compartmentalization Workshop, Stillwater, OK.
251. **Flemings, P.B.**, <sup>3</sup>Carlson, J., 1996, Transport and Deposition of Heterogeneous-Sized Sediment in a Non-Marine Sedimentary Basin, Numerical Experiments in Stratigraphy Poster Session, Lawrence, Kansas.
252. **Flemings, P.B.**, Nelson, S.E., Poulsen, C., Spinelli, G., 1996, Integrated Approaches to Advanced Stratigraphy: Seismic Interpretation and STRATA modeling of the Neogene Baltimore Canyon Trough, Numerical Experiments in Stratigraphy Conference, Lawrence, Kansas.
253. **Flemings, P.B.**, Zoback, M., \*Stump, B.B., Hicks, P., 1996, Pressure Pp, Overburden Sv, and Minimum Principal Stress Shmin; Understanding Hydrocarbon Migration, GRI Pressure Compartmentalization Workshop, Stillwater, OK.
254. **Flemings, P.B.**, Zoback, M., Bishop, B., Anderson, R.N., 1996, State of Stress in a Plio-Pleistocene Gulf Coast Growth Fault: Implications for Fracture Driven Fluid Flow, AAPG Annual Meeting, San Diego, CA.
255. \*Gordon, D., **Flemings, P.B.**, 1996, Compaction-Driven Fluid Flow in a Plio-Pleistocene Gulf Coast Growth Fault System, Offshore Gulf of Mexico, AGU Poster Session, Baltimore, MD.
256. \*Gordon, D.S., **Flemings, P.B.**, 1996, One and Two Dimensional Modeling of Compaction Driven Fluid Flow in a Plio-Pleistocene Growth-Faulted Basin, Offshore Louisiana, GSA Annual Meeting, Denver, CO.
257. Poulsen, C.J., Robinson, R.A.J., Spinelli, G., **Flemings, P.B.**, Miller, K., 1996, Variability of Shore-Normal Relative Sea Level Curves and Sediment Accumulation Patterns of Migrating Deltas. GSA Annual Meeting, Denver, CO, A-63.
258. Rowan, M.B., +Hart, B.S., Nelson, S.E., **Flemings, P.B.**, 1996, Four-dimensional evolution of a salt-related fault network: Eugene Island Block 330 field, Offshore Louisiana, AAPG Annual Meeting, San Diego, CA.
259. <sup>3</sup>Alexander, L.L., **Flemings, P.B.**, 1994, Architecture and Evolution of a Plio-Pleistocene Salt Withdrawal Mini-Basin: Eugene Island, Block 330, Offshore Louisiana, AAPG Annual Meeting, Denver, CO.
260. <sup>3</sup>Alexander, L.L., **Flemings, P.B.**, 1994, Architecture and Evolution of a Plio-Pleistocene Salt Withdrawal Mini-Basin: Eugene Island, South Addition, Block 330, Offshore Louisiana, GBRN/Pennzoil Technology Conference, Houston, TX.
261. Billeaud, L.B., Anderson, R.N., **Flemings, P.B.**, Losh, S., 1994, The Adventures of Drilling and Conducting Experiments Through a Major Fault Zone in Eugene Island 330, Offshore Louisiana, Gulf of Mexico, GBRN/Pennzoil Technology Conference, Houston, TX.

262. Billeaud, L.B., Anderson, R.N., **Flemings, P.B.**, Losh, S., 1994, The Adventures of Drilling and Conducting Experiments Through a Major Fault Zone in Eugene Island 330, Offshore Louisiana, Gulf of Mexico. AAPG Annual Meeting, Denver, CO.
263. <sup>3</sup>Carlson, J., **Flemings, P.B.**, Grotzinger, J.P., 1994, Stratigraphic Simulation using an Improved Dual-Lithology Sediment Transport Model. AAPG Annual Meeting Poster Session, Denver, CO.
264. \*Deshpande, A., **Flemings, P.B.**, 1994, Effective Stress, Porosity, and Abnormal Pressure in the Eugene Island Block 330 Field, AAPG Annual Meeting, Denver, CO.
265. \*Deshpande, A., **Flemings, P.B.**, 1994, Effective Stress, Porosity, and Abnormal Pressure in the Eugene Island Block 330 Field, GBRN/Pennzoil Technology Conference, Houston, TX.
266. **Flemings, P.B.**, Anderson, R.N., Billeaud, L., Losh, S., Zoback, M., 1994, Drilling Experiments through a Major Fault Zone in Eugene Island 330, Gulf of Mexico, VIIth International Symposium on the Observation of the Continental Crust Through Drilling, Santa Fe, NM.
267. **Flemings, P.B.**, <sup>3</sup>Carlson, J., Grotzinger, J.P., 1994, Equal Mobility, the Graded Stream, and Downstream Fining, AGU Annual Meeting, San Francisco, CA.
268. **Flemings, P.B.**, Haggerty, S.J., Anderson, R.N., 1994, Capillary Pressure and Effective Stress: Potential Controls on Hydrocarbon Distribution and Migration in Eugene Island Block 330, GBRN/Pennzoil Technology Conference, Houston, TX.
269. **Flemings, P.B.**, Haggerty, S.J., Anderson, R.N., 1994, Capillary Pressure and Effective Stress: Potential Controls on Hydrocarbon Distribution and Migration in Eugene Island Block 330, AAPG Annual Meeting, Denver, CO.
270. **Flemings, P.B.**, Zoback, M., Bishop, B.A., +Hart, B.S., Anderson, R.N., 1994, In Situ Measurements of Pressure and Stress in the Pathfinder Well, Eugene Island, Gulf Mexico, AGU Annual Meeting, San Francisco, CA.
271. +Hart, B.S., **Flemings, P.B.**, Sibley, D., Bishop, B., 1994, Facies Architecture of a Shelf Margin Lowstand Complex, Eugene Island Block 330 Field, Louisiana Offshore, GBRN/Pennzoil Technology Conference, Houston, TX.
272. +Hart, B.S., **Flemings, P.B.**, Sibley, D., Bishop, B., 1994, Facies Architecture of a Shelf Margin Lowstand Complex, Eugene Island Block 330, Louisiana Offshore, AAPG Annual Meeting, Denver, CO.
273. Rowan, M.G., Weimer, P., **Flemings, P.B.**, 1994, Deformation of an Amalgamated Salt Sheet: Controls on the Structural and Stratigraphic Evolution of the Eugene Island 330 Mini-Basin, GBRN/Pennzoil Technology Conference Houston, TX.
274. Rowan, M.G., Weimer, P., **Flemings, P.B.**, 1994, Deformation of an Amalgamated Salt Sheet: Controls on the Structural and Stratigraphic Evolution of the Eugene Island 330 Mini-basin, AAPG National Meeting, Denver, CO.
275. **Flemings, P.B.**, <sup>3</sup>Alexander, L., Anderson, R.N., 1993, The Hydrostratigraphy of a Plio-Pleistocene Growth Fault: The Eugene Island Block 330 Field, GBRN Technical Meeting.
276. Rowan, M.G., Weimer, P., **Flemings, P.B.**, 1993, Eugene Island Block 330: Regional Stratigraphic and Structural Evolution, GBRN Technical Meeting.
277. **Flemings, P.B.**, <sup>3</sup>Alexander, L., Spiegleman, M., Anderson, R.N., 1992, Fluid expulsion from abnormally pressured strata along growth faults in the Eugene Island Block 331 Area, Gulf of Mexico. AAPG Annual Meeting, Calgary, Canada.
278. **Flemings, P.B.**, Ando, C., Carter, J.B., Ferdinand, K.J., Masek, J., Rassman, B., Rudolph, K., Shaw, C., 1992, Three dimensional stratigraphic geometry and subsidence history of Cretaceous strata, Colville Trough, Alaska, AAPG Annual Meeting, Calgary, Canada.
279. <sup>3</sup>Alexander, L.L., **Flemings, P.B.**, 1991, Sequence Stratigraphy and Pressure Distribution Along A Syn-Depositional Listric Fault-Eugene Island, Gulf of Mexico, Geological Society of America, San Diego, CA.
280. **Flemings, P.B.**, Jordan, T.E., 1990, Modeling stratigraphic sequences in clastic sedimentary basins. AAPG Annual Meeting, San Francisco, CA.
281. Jordan, T.E., **Flemings, P.B.**, 1990, Análisis Teórico de la Estratigrafía de Cuencas de Ante país Durante Deformaciones Episódicas, Tercera Reunion Argentina de Sedimentology, May 1990.

282. **Flemings, P.B.**, 1989, Downstream fining by selective sediment transport in fluvial systems, American Geophysical Union Meeting.
283. **Flemings, P.B.**, Jordan, T.E., 1989, Reconstructing eustatic sea-level history from the age of stratigraphic sequence boundaries, Geological Society of America Meeting.
284. **Flemings, P.B.**, Jordan, T.E., 1989, Synthetic stratigraphy, implications for deformation and rheology, International Geological Congress Meeting, Washington, D.C.
285. **Flemings, P.B.**, Jordan, T.E., 1987, Synthetic stratigraphy of foreland basins, American Geophysical Union Annual Meeting, Baltimore, MD.
286. **Flemings, P.B.**, Jordan, T.E., Reynolds, S.A., 1986, Flexural analysis of two broken foreland basins: the Late Cenozoic Bermejo basin and the Early Cenozoic Green River Basin, AAPG Annual Meeting, Atlanta, GA.

### **Participation in Meetings, Seminars, and Workshops**

1. Chevron: Workshop on trap integrity, March 2022 (invited speaker)
2. DOE:Carbon Management and Oil and Gas Research Project Review Meeting, Aug. 2021 (invited speaker)
3. BEG Lecture, The origins of overpressure at the Macondo Well (invited speaker)
4. EAGE Workshop on Pore Pressure Prediction, Dec. 2020 (invited speaker)
5. DOE Methane Hydrate Advisory Committee Meeting, Dec. 2020 (invited speaker)
6. AAPG Annual Convention and Exhibition, Online, Sept 2020
7. UT GeoFluids Industrial Affiliates Meeting, Austin, TX, Feb 2019 (meeting organizer)
8. UT GeoFluids Industrial Affiliates Meeting, Austin, TX, Feb 2018 (meeting organizer)
9. Gordon Research Conference, Galveston, Tx, March 2020
10. AGU Annual Meeting, D.C., Dec 2018
11. Gordon Research Conference, Galveston, TX, Feb 2018
12. AGU Annual Meeting, New Orleans, LA, Dec 2017
13. IODP *Joides Resolution* Assessment Workshop, Denver, CO, Sep 2017
14. Penn State Research Symposium, State College, PA, Sep 2017
15. UT GeoFluids Industrial Affiliates Meeting, Austin, TX, Feb 2017 (meeting organizer)
16. UT GeoFluids Industrial Affiliates Meeting, Austin, TX, Mar 2016 (meeting organizer)
17. UT GeoFluids Industrial Affiliates Meeting, Austin, TX, Feb 2015 (meeting organizer)
18. American Geophysical Union meeting 2014, San Francisco, CA, December 2014 (invited speaker)
19. DOE Drilling Hybrid PCS Strategy Meeting, Salt Lake City, UT, November 2014 (meeting organizer)
20. DGS Faculty Retreat, Lost Pines, TX, September 2014 (meeting organizer)
21. Shell Grand Challenge Meeting, Austin, TX, September 2014
22. Fourth EAGE Shale Workshop, Porto, Portugal, April 2014 (invited speaker)
23. 2014 Gordon Research Conference on Natural Gas Hydrate Systems, March 2014
24. SPE/AAPG/SEG Pore Pressure Workshop, March 2014
25. UT GeoFluids Industrial Affiliates Meeting, Austin, TX, Feb 2014 (meeting organizer)
26. American Geophysical Union meeting 2013, San Francisco, CA, December 2013
27. 6th International Symposium on Submarine Mass Wasting and their Consequences (6thISSMMTC), Kiel Germany, September 23-25, 2013 (keynote speaker)
28. 47th U.S. Rock Mechanics/Geomechanics Symposium, June 2013 (invited speaker)
29. IODP Board of Govenors Meeting, Sendai Japan, June 2013
30. Methane Hydrate Advisory Committee, June 2013 (Co-chair)
31. Marine Gas Hydrate Community Workshop, June 2013

32. GSOC Meeting, March 2013
33. Jackson School of Geology, Prospective Student Weekend, Austin, TX, Feb. 2013
34. UT GeoFluids Industrial Affiliates Meeting, Austin, TX. Feb. 2013 (meeting organizer)
35. 2<sup>nd</sup> Annual Jackson School Student Research Symposium, Feb.2013 (organizer)
36. IODP Expedition 342 Editorial Meeting, January 2013
37. Convener of the session: Initiation and Evolution of Rift Systems II, 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
38. Convener of the session: Faults, Fractures, and Fluid Flow in Georesources: Physical, Chemical, and Transport Processes and Models IV Posters, 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
39. Convener of the session: Faults, Fractures, and Fluid Flow in Georesources: Physical, Chemical, and Transport Processes and Models I, 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
40. 2nd Gordon Research Conference on Hydrates, Ventura Beach, CA, March 2012 (Chair)
41. Jackson School of Geology, Prospective Student Weekend, Austin, TX, Feb. 2012 (meeting organizer)
42. UT GeoFluids Industrial Affiliates Meeting, Austin, TX. Feb. 2012 (meeting organizer)
43. 1<sup>st</sup> Annual Jackson School Student Research Symposium, Feb.2012 (organizer)
44. American Geophysical Union Fall meeting 2012, San Francisco, CA, December 2011 (invited speaker)
45. EarthScope-GeoPRISMS Science Workshop for Eastern North America, Bethlehem, PA, October 2011 (Convener)
46. GEOPRESSURE 2011, Galveston, TX, October 2011 (Co-chair)
47. IODP 319 Expedition Meeting, Barcelona, Spain, September 2011
48. EarthScope-GeoPRISMS Opportunities in Eastern North America, Mini-Workshop, Austin, TX, May 2011 (Convener)
49. EarthScope National Meeting, Austin, TX, May 2011 (Convener)
50. USGS Hazard Workshop, Menlo Park, CA, March 2011
51. UT GeoFluids Industrial Affiliates Meeting, Austin, TX, Feb. 2011 (meeting organizer)
52. GeoPRISMS Implementation Workshop: Subduction Cycles and Deformation, Austin, TX, January 2011
53. RIE Workshop, Santa Fe, NM, October 2010
54. Gordon Research Conference on Methane Hydrates, June 2010
55. UT GeoFluids Industrial Affiliates Meeting, Austin, TX. Feb. 2010 (meeting organizer)
56. Margins Successor Planning Workshop, San Antonio, TX. Feb. 2010
57. IODP Invest, Bremen, Germany, Sept, 2009
58. UKIODP Scientific Ocean Drilling Symposium, London, May 2009 (invited speaker)
59. Workshop on Seabed Sediment Pore Pressure: Genesis, Measurement and Implications for Design/Analysis, March 2009, Oslo, Norway (invited speaker).
60. SPE / AAPG / SEG Pore Pressure Prediction, Monitoring, and Wellbore Stability Workshop, San Antonio, Texas, February 2009 (member organizing committee)
61. PSU GeoFluids Consortium Meeting, Austin, TX, November 2008 (meeting organizer)
62. IODP Collaborative Industry Drilling Workshop, Houston, TX, June 2008
63. IODP Engineering Development Panel Meeting, France, January 2008 (Panel Chair)
64. PSU GeoFluids Consortium Meeting, Austin, TX, October 2007 (meeting organizer)
65. IODP Science Planning Committee Meeting, August 2007, Santa Cruz, CA, (Presenter)
66. IODP GeoHazards Meeting, August, 2007, Portland, Or (Participant)
67. IODP Gas Hydrates Observatory Meeting, July 2007, Portland, Or. (Presenter)
68. IODP Engineering Development Panel Meeting, Japan, July 2007 (Panel Chair)

69. Chevron Hydrocarbon Charge Workshop, April 2007, Houston, Texas (Presenter)
70. IODP Science Planning Committee Meeting, March 2007, Osaka Japan, (Presenter)
71. IODP Gulf of Mexico Scoping Project Meeting, Feb. 2007, Houston, TX. (Presenter)
72. IODP Engineering Development Panel Meeting, New York, January 2007 (Panel Chair)
73. PSU GeoFluids Consortium Meeting, Santa Cruz, CA, October 2006 (meeting organizer)
74. IODP Expedition 308 Post Cruise Science Meeting, Granada, Spain (Presenter)
75. IODP Science Planning Committee Meeting, August 2006, Bergen, Norway (Presenter)
76. 12<sup>th</sup> German-American Frontiers of Science Symposium, Potsdam, Germany, June 2006 (speaker)
77. IODP Engineering Development Panel Meeting, Germany, June 2006 (Panel Chair)
78. IODP Engineering Development Panel Meeting, Japan, January 2006 (Panel Chair)
79. IODP EPSP Meeting, Honolulu, HI, December 2005 (presenter)
80. PSU GeoFluids Consortium Meeting, Galveston, TX, September 2005 (meeting organizer)
81. IODP EDP Panel Meeting, Boston, MA, September 2005 (Panel chair)
82. ODP Downhole Tools Workshop, Washington, D.C., May 2004 (workshop co-convener)
83. PSU GeoFluids Consortium Meeting, Santa Barbara, CA, April 2004 (meeting organizer)
84. JOIDES Pollution Prevention and Safety Panel Meeting, Barcelona, Spain, June 2002 (panel member)
85. ODP Leg 196 Post-Cruise Science Meeting, Kochi, Japan, May 2002 (invited participant)
86. PSU GeoFluids Consortium Meeting, Santa Cruz, CA, February 2003 (meeting organizer)
87. JOIDES Pollution Prevention and Safety Panel Meeting, Miami, FL, December 2001 (panel member)
88. Capital Hill Earth Science Week, Joint Oceanographic Institutions, House of Representatives, Washington, D.C., October 2001 (invited speaker)
89. Forum on Cooperation in Scientific Ocean Drilling: Forging Industry and Academic Partnerships, organized by the Industrial Liaison Working Group (an IODP planning group) and hosted by BP Exploration, Sunbury, UK, September. 6-7, 2001 (invited participant)
90. Deepwater Geohazard Workshop, Del Lago Conference Center in Montgomery, Texas, April 2001 (invited speaker)
91. PSU GeoFluids Consortium Meeting, Conoco offices, Houston, TX, March 2001 (meeting organizer)
92. GeoSystems Initiative Bullwinkle Research Seminar, Shell Exploration and Production Company offices, New Orleans, LA, March 2001 (meeting organizer)
93. Annual Penn State Time-Lapse Seismic Consortium Meeting, Texaco Offices, Briar Park, TX, March 2001 (meeting organizer)
94. Chevron Pore Pressure Workshop, Chevron Offices, New Orleans, LA, January 2001 (invited speaker, and led a workshop session)
95. Hubbert Quorum, Palo-Alto, CA, December 2000 (invited speaker)
96. PSU GeoFluids Consortium Meeting, Bellaire, TX, March 2000 (meeting organizer)
97. Workshop in GeoFluids of Overpressured Strata in the Gulf of Mexico, Houston, TX, March 2000. Sponsors: JOI-ODP, Conoco. (co-organizer/leader of conference)
98. PSU GeoFluids Consortium Annual Meeting, Houston, TX, February 1999 (meeting organizer)
99. GRI Consortium Meeting and Workshop, Houston, TX, June 1998 (meeting organizer)
100. GRI Pressure Compartmentalization Workshop, Stillwater, OK, November 1996 (invited participant, gave two presentations)
101. Global Basins Research Network (GBRN) Corporate Affiliates Meeting, Houston, TX, August 1995 (invited participant, reported on progress in geopressure research)
102. Workshop on pressure/stress in the Gulf of Mexico, Penzoil Offices, Houston, TX, August 1994 (organized and led seminar)

103. International Continental Scientific Drilling (ISCD) Workshop, Potsdam University, Potsdam, Germany, August 1993 (invited participant, co-wrote final report)
104. Sequence Stratigraphy Workshop, Rutgers University, October 1991 (invited participant)

### Invited Lectures

1. Presented to PGE 364 Natural Gas Engineering course (Prof. DiCarlo), May 2021
2. Geopressure 2021: Managing uncertainty in geopressure by integrating geoscience and engineering, March 2021
3. EAGE Workshop on Pore Pressure Prediction, Dec. 2020
4. DOE Methane Hydrate Advisory Committee Meeting, Dec. 2020
5. BEG Lecture, The origins of overpressure at the Macondo Well, Oct 2020
6. Ice that burns, University of Texas Libraries Research & Pizza presentation. April 2018
7. Recent results pressure coring hydrate-bearing sands in the deepwater Gulf of Mexico: implications for formation and production, Gordon Research Conference on Natural Gas Hydrate Systems. Galveston, Tx., Feb. 2018
8. UT Petroleum and GeoSystems Engineering Graduate Seminar, Illuminating the genesis of methane hydrate within coarse-grained reservoirs through deepwater drilling in the Gulf of Mexico, Sep 2017
9. TX A&M University Graduate Seminar, Illuminating the genesis of methane hydrate within coarse-grained reservoirs through deepwater drilling in the Gulf of Mexico, Sep 2017
10. ICGH, GOM2: Prospecting, drilling and sampling coarse-grained hydrate reservoirs in the deepwater Gulf of Mexico. Denver, CO, June 2017
11. Woods Hole Oceanographic Institute, Exploring the Methane Hydrate GeoSystem from Pore to Basin, July 26, 2016
12. Sandia National Laboratories, Exploring the Methane Hydrate GeoSystem from Pore to Basin, June 15, 2016
13. Osher Lifelong Learning Institute at UT Austin, The Methane Hydrate GeoSystem: Geology, Climate, & Energy, April 19, 2016
14. Woods Hole Oceanographic Institute, The Methane Hydrate and Free Gas GeoSystem, June 29, 2015
15. Penn State University, The Methane Hydrate and Free Gas GeoSystem: Geology, Climate, & Energy, April 6, 2015
16. Jackson School of Geosciences Tech Session: The Methane Hydrate and Free Gas GeoSystem: Geology, Climate, & Energy, January 29, 2015
17. Keynote Speaker: Pore pressure response to unloading, progressive slope failure, and the stratigraphic record, 6th International Symposium on Submarine Mass Wasting and their Consequences (6thISSMMTC), Kiel Germany, September 23-25, 2013
18. Keynote Speaker: The Science of Pore Pressure Prediction in the Deepwater, 47th US Rock Mechanics/Geomechanics Symposium, San Francisco, California, USA on 23-26 June 2013
19. Talk: Gas Venting Through the Hydrate Stability Zone: observation and theory, MARUM – Center for Marine Environmental Sciences, University of Bremen, June 2012, Bremen, Germany
20. Talk: Making Mudstones: insights into material behavior through resedimentation experiments, Invited Speaker, Abstract MR23D-04, presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec
21. Offshore Active Processes and Hazards, RIE Lehigh conference, October 2011, Bethlehem, PA
22. Talk: Geomechanical modeling of salt-sediment interaction in evolving sedimentary basins, Abstract T42A-04, presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
23. Society of Industrial and Applied Mathematics, 'Capillary behavior of methane hydrates', Long Beach, CA, March 2011.
24. Sub-seafloor Oil-plume Containment: How can we preserve and build the required expertise to respond to large oil vents in the US waters? Is there a role beyond spill response?, National USGS Marine Geohazards Workshop, Pore Pressure and the Macondo Well, March 2011, Menlo Park.
25. California Institute of Technology, 'Pore Pressure, shallow to deep,' November 2010.
26. Dept. of Geophysics, Stanford University, 'Pore pressure, shallow to deep'. November 2010
27. Bureau of Economic Geology, Jackson School of Geosciences, 'Pore pressure, trap integrity, and seafloor venting,' April 2010.



28. SPE 2008 Forum on Reservoir Geomechanics, Colorado Springs, Co, June 2008 (invited speaker)
29. Keynote Speaker/ Co-Convener, 'Subsurface sediment mobilization and fluid flow', Geological Society, London.
30. European Association of Geoscientists & Engineers Research Workshop, 'Compacting and Stressing Out Shales: from Geological to Production Timescales', Berlin, Germany (invited speaker)
31. Dept. of Earth and Planetary Sciences, University of California, Santa Cruz. April 2008 (JOI Distinguished Lecture)
32. Dept. of Geosciences, Indiana University of Pennsylvania, Indiana, PA. March 2008 (JOI Distinguished Lecture)
33. Geology Dept. University of California, Davis. January 2008 (JOI Distinguished Lecture)
34. Geology Dept. Edinboro University, Edinboro, PA. November 2007 (JOI Distinguished Lecture)
35. Dept. Petroleum Engineering and Dept. of Geosciences, Louisiana State University, November 2007 (JOI Distinguished Lecture)
36. Earth Sciences Dept., University of Maine, Orono, ME. October 2007 (JOI Distinguished Lecture)
37. Geology Dept., Middlebury College, Middlebury, Vt. October 2007 (JOI Distinguished Lecture)
38. Earth Sciences Dept., University of Maine, Orono, ME. October 2007 (JOI Distinguished Lecture)
39. Chevron 2007 Hydrocarbon Charge Evaluation Workshop, Houston, Texas, April 2007 (invited speaker)
40. University of Texas, February 2007 (invited speaker, 2 lectures)
41. Department of Geosciences, Penn State University, Spring 2007 (Geodynamics Seminar)
42. British Petroleum, October 2006, London, (Invited Speaker)
43. Invited Speaker, Kavli Frontiers of Science 12th German-American Symposium, Potsdam Germany (2006)
44. 12<sup>th</sup> German-American Frontiers of Science Symposium, Potsdam, Germany, June 2006 (invited speaker)
45. Dept. of Earth Sciences, Dartmouth College, Hanover, NH April 2006 (AAPG Distinguished Lecture)
46. Dept. of Geology, University of Toronto, Toronto, Canada, April 2006 (AAPG Distinguished Lecture)
47. College of Oceanic and Atmospheric Sciences, Marine Geology, and Geophysics Department, Oregon State University, Corvallis, OR April 2006 (AAPG Distinguished Lecture)
48. Dept. of Geological Sciences, University of Oregon, Eugene, OR, April 2006 (AAPG Distinguished Lecture)
49. Dept. of Geology and Geophysics, University of Calgary, Calgary, Canada, April 2006 (AAPG Distinguished Lecture)
50. Department of Geology and Geological Engineering, University of North Dakota, Grand Forks, ND, April 2006 (AAPG Distinguished Lecture)
51. North Dakota Geological Society, Bismarck, ND, March 2006 (AAPG Distinguished Lecture)
52. Montana Geological Society, Billings, MT, March 2006 (AAPG Distinguished Lecture)
53. Department of Geology and Geophysics, University of Wyoming, Laramie, WY, March 2006 (AAPG Distinguished Lecture)
54. Northern California Geological Society, San Ramon, CA, March 2006 (AAPG Distinguished Lecture)
55. Department of Geology and Environmental Sciences, Lafayette College, Feb. 2006 (AAPG Distinguished Lecture)
56. Department of Geosciences, University of South Carolina, Columbia, S.C., October 2004 (departmental seminar)
57. Department of Geosciences, Texas A&M, College Station, TX, October 2003 (departmental seminar)
58. Department of Earth Sciences, Rice University, Houston, TX, April 2003 (departmental seminar)
59. Department of Geosciences, Penn State University, April 2003 (Geosciences Colloquium speaker)
60. JOIDES Pollution Prevention and Safety Panel Meeting, Barcelona, Spain, June 2002 (invited seminar)
61. Department of Civil and Environmental Engineering, MIT, Cambridge, MA, April 2002 (departmental seminar)
62. University of Rhode Island Graduate School of Oceanography, Narragansett, RI, March 2002 (Marine Geology & Geophysics Seminar)
63. Woods Hole Oceanographic Institution, Woods Hole, MA, March 2002 (Geodynamics seminar)
64. University of Edinburgh, Edinburgh, United Kingdom, May 2001 (invited speaker)
65. Pittsburgh Geological Society, Pittsburgh, PA, November 2000 (invited speaker)
66. Cornell University, October 1998 (invited speaker)

67. New Orleans Geologic Society, New Orleans, LA, October 1998 (invited speaker)
68. Department of Geosciences, Penn State University, February 1997 (Geodynamics Seminar)
69. Department of Geosciences, Penn State University, September 1996 (Hydroscience Brown Bag Seminar)
70. Department of Geography and Environmental Engineering, Johns Hopkins University, November 15, 1995 (departmental seminar)
71. Petroleum & Natural Gas 590 Seminar, Penn State University, November 1995 (invited speaker)
72. Society of Petroleum Engineers, Penn State University, February 1995, (invited guest speaker)
73. Department of Geosciences, Penn State University, October 1994 (Hydroscience Brown Bag Seminar)
74. Department of Earth and Planetary Sciences, University of New Mexico, September 1994, (presented two department-wide seminars)
75. Crosby Distinguished Lecturer, M.I.T., January 1994 (presented departmental seminar on geopressure)

## FIELD EXPEDITIONS

- |      |   |
|------|---|
| 2022 | Probe Deployment Tool (PDT) Upgrade and Bench Test, February 2022 (1 week)            |
| 2021 | PCTB Land Test for GOM2, April 2021 (1 week)  |
| 2020 | Cameron Engineering Field Test for GOM2, March 2020 (1 week)                          |
| 2017 | GoM <sup>2</sup> -1, May 2017 (6 weeks)   |
| 2014 | Panoche Valley, May 2014 (1 week)   |
| 2012 | IODP Expedition 342, Pore Pressure Penetrometer Deployment, June 2012 (1 month)       |
| 2012 | Motion Decoupled Hydraulic Delivery System Test, Sugarland, TX, April 2012 (1 week)   |
| 2012 | Motion Decoupled Hydraulic Delivery System Test, Sugarland, TX, January 2012 (1 week) |
| 2011 | Pore Pressure Penetrometer Test, Sugarland, TX, August 2011 (1 week)                  |
| 2010 | Pore Pressure Penetrometer Deployment, Boston, June 2010 (1 week.).                   |
| 2009 | IODP Expedition 319, Summer 2009 (Physical Properties Specialist)                     |
| 2005 | IODP Expedition 308---Gulf of Mexico Hydrogeology (co-Chief Scientist) (2 months)     |
| 2003 | JAMSTEC KRO3 Cork Data Recovery Cruise (2 weeks)                                      |
| 2002 | ODP Leg 204---Hydrate Ridge (shore-based scientist)                                   |
| 2002 | JAMSTEC KRO2-10 Cork Data Recovery Cruise (2 weeks)                                   |
| 2001 | ODP Leg 196---Nankai Accretionary Prism (8 weeks)                                     |
| 1997 | ODP Leg 174A---New Jersey Margin (logging scientist) (4 weeks)                        |

## OTHER EVIDENCE OF RESEARCH ACCOMPLISHMENTS

- Interviewed for National Public Radio, September 2017
- Interviewed for The Energy Makers, Episode 159, November 2014
- Interviewed and research features in article “UT will research new Gulf energy source” published in *Houston Chronicle*, Oct 22, 2014
- Interviewed and research featured in article “UT-led team gets \$58M for fuel study” published in *Austin American Statesman*, Oct 22, 2014
- Interviewed and research featured in article “Drilling Deep for Fire and Ice” published in *JSG Newsletter*, 2014
- Interviewed and research featured in article “Uncharted Waters: A Behind the Scenes Look at the Struggle to Kill the Deepwater Horizon Oil Spill” published in *JSG Newsletter*, 2013.
- Interviewed and featured in article “Students Organize First JSG Research Symposium” published in *JSG Newsletter*, 2012.
- Interviewed and research featured in article “Hands-On Learning Monopoly: Oil Edition” published in *JSG Newsletter*, 2010.
- Interviewed and featured in article “Bureau Organizes First Annual Industry Day” published in *JSG Newsletter*, 2009.
- Interviewed and featured in article “Jackson School Hosts Fort Valley Students” published in *JSG Newsletter*, 2008.
- Interviewed and research featured in article “Swept Away: Peter Flemings Works Best Under Pressure” published in *JSG Newsletter*, 2007.
- Interviewed and research featured in article “Tidal Waves Called Threat to East Coast” published in *The New York Times*, July 2000.

Interviewed and research featured in article “If You See A Really Big Wave At Shore, There's An Explanation” published in *The Philadelphia Inquirer*, July 2000.

Interviewed and research featured in article “All coasts face tidal wave risk Slides could spark disaster” published in *USA Today*, July 2000.

Interviewed for Discovery Channel program *Science News*, October 2000.

Interviewed and research featured in article published in *Penn State Intercom*, November 2000.

## RESEARCH PROJECTS, GRANTS AND CONTRACTS

### In Progress:

<u>Duration</u>	<u>Title</u>	<u>Source</u>	<u>Amount</u>
2015-2024	Deepwater Methane Hydrate Characterization in the Gulf of Mexico: Scientific Assessment and Production Potential	DOE	\$98,993,151
2013-2029	UT GeoFluids—Industrial Consortium	Industry	\$5,150,854

### Completed:

<u>Duration</u>	<u>Title</u>	<u>Source</u>	<u>Amount</u>
2014-2019	SUTUR Task 11: The Effective Stress Law for Permeability During Pore Pressure and Pressure Cycling of Shale	Shell	\$1,572,345
2016-2019	A multi-scale experimental investigation of flow properties in coarse-grained hydrate reservoirs during production	DOE	\$1,499,991
2016-2018	SUTUR: Multi-faceted study of water cut in the Permian Wolfcamp in the Delaware Basin, West Texas	Shell	\$83,000
2012-2015	Controls on Methane Expulsion During Melting of Natural Gas Hydrate Systems: Topic Area 2	DOE	\$1,170,807
2012-2015	SUTUR Task 1: Mechanisms of Gas Flow in Shale	Shell	\$457,127
2012-2015	SUTUR Equipment Grant	BEG	\$180,000
2014	Jackson School of Geosciences Equipment Grant	JSG	\$100,000
2014-2015	Jackson School of Geosciences Seed Grant: Migration of gas in coarse-grained hydrate-bearing sediments	JSG	\$35,000
2013-2014	JSG Equipment Grant	Jackson School of Geosciences	\$124,000
2012-2014	Theory, experiment, and observation of the impact of warming on methane hydrate melting and gas venting in the Arctic.	NASA	\$30,000
2012	UT GeoFluids - Industrial Consortium	Industry	\$556,600
2011-2013	Observing the Transient Temperature and Pressures of the Tohoku Earthquake: Observatory Fabrication	Consortium for Ocean Leadership	\$14,998
2011	UT GeoFluids - Industrial Consortium	Industry	\$535,700
2008-2012	A motion decoupled hydraulic delivery system for the IODP	Integrated Ocean Drilling Program Management International	\$534,000
2009-2012	Geotechnical Characterization of IODP Site C0009 and Petrophysical Analysis of the Megaspaly gault at IODP Site C0010	Consortium for Ocean Leadership	\$79,386
2010	UT GeoFluids - Industrial Consortium	Industry	\$561,600

2009-2010	IODP Expedition 319 - NANTROSEIZE Stage 2 Riser/Riserless Observatory aboard the D/V Chikyu	CORE	\$64,386
2009	UT GeoFluids - Industrial Consortium	Industry	\$495,000
2007	G3: GeoMechanics, GeoFluids, & GeoHazards Initiative Support (with Marone, and Elsworth)	Energy Institute, The Pennsylvania State University	\$55,000
2007	Overpressure and Slope Stability in the Deepwater Gulf of Mexico	American Chemical Society, Petroleum Research Fund Supplement for Underrepresented Minority Research	\$5,000
2006-2008	Overpressure and Slope Stability in the Deepwater Gulf of Mexico	American Chemical Society, Petroleum Research Fund	\$80,000
2005-2008	JOI Postcruise – Sawyer	Joint Oceanographic Institute	\$23,467
2005-2008	JOI Postcruise – Long	Joint Oceanographic Institute	\$21,353
2005-2008	JOI Postcruise – Flemings	Joint Oceanographic Institute	\$29,011
2005	JOI Cruise – Flemings	Joint Oceanographic Institute	\$65,762
2004-2009	GeoFluidsIII Consortium	Amerada Hess, Anadarko, BP, BHP Petroleum, Chevron, ConocoPhillips, Devon Energy, Encana (withdrew), ExxonMobil, Shell, Unocal (bought by Chevron)	\$1,081,000
2004-2007	Collaborative Research: Analysis and Development of a New Pressure Probe for the IODP	National Science Foundation	\$199,991
2004	Downhole Tools in the Integrated Ocean Drilling Program: Goals, Techniques, Needs, and Strategies for Development	JOI	\$39,988
2002-2005	Petroleum GeoSystems Initiative	Shell Offshore Inc., The Shell Foundation and ChevronTexaco	\$300,000
9/6/02- 7/11/05	ODP Leg 204 Post-Cruise Science: Constraining a soil model for Hydrate Ridge sediments through Triaxial Deformation Experiments, award no. F001698	Texas A&M Research Foundation, JOI/ODP	\$6,600

2001-2004	GeoFluidsII Consortium	Amerada Hess, Anadarko, BP, BHP Petroleum, Burlington Resources, Chevron, Conoco, Devon Energy, Pan Canadian, Phillips, Shell, Unocal	\$648,000
2001-2002	ODP Leg 196 Post-Cruise Science Funds	Texas A&M Research Foundation, JOI/ODP	\$25,594
2001	USSSP Participant, Leg 196	Texas A&M Research Foundation, JOI/ODP	\$19,186
2000-2002	Overpressure and Fluid Flow in New Jersey Continental Slope: Implications for Slope Stability and Cold Seeps	National Science Foundation	\$108,000
1998-2001	GeoFluidsI Consortium	Amerada Hess, Arco/Vaster, BHP Petroleum, Burlington Resources, Chevron, Conoco, Phillips, Shell, Unocal	\$405,000
1998-2001	Petroleum GeoSystems Initiative	Shell Offshore Inc. and The Shell Foundation	\$350,000
1998-2001	Time-Lapse Seismic Consortium	Chevron, Conoco, Statoil, Texaco	\$180,000
1998-2000	Three-Dimensional Characterization and Modeling of Mio- Pliocene Clinoforms, Offshore New Jersey: Depositional Processes, Stratigraphic Architecture, and Lithology Distribution	American Chemical Society, Petroleum Research Fund	\$60,000
1997-1999	Integrated Analysis of Miocene and Pleistocene Lowstand Wedges	Texas A&M Research Foundation, JOI/ODP	\$19,206
1997-1999	NSF Hydrodynamic	National Science Foundation	\$89,012
1997-1998	Post-Cruise Scientific Research Up-Front Funds	Texas A&M Research Foundation, JOI/ODP	\$3,000
1997	USSSP Participant, Leg 174A	Texas A&M Research Foundation, JOI/ODP	\$16,112

1996-1998	Demonstration of Stress Control on Entrapment of Gas in Geopressured Strata with Application to: Exploration (risking seal integrity) and Production (optimizing well bore stability and fracture completion approaches)	Gas Research Institute	\$757,171
1996	Simulation of Hydrocarbon Migration in Faulted Systems: Stage Two	Exxon Production Research Company	\$69,003
1995-1999	4D Seismic Interpretation of Three Fields in the Gulf of Mexico	Amoco, Chevron, Exxon, Pennzoil, Shell, Texaco, BP, Norsk Hydro, Unocal	\$450,000
1995-1996	Core Laboratories Fellowship	Core Laboratories	\$33,850
1995	Simulation of Hydrocarbon Migration in Faulted Systems: Stage One	Exxon Production Research Company	\$20,000
1994-1997	Shell Foundation Faculty Career Initiation Fund	Shell Oil Company Foundation	\$75,000
1994-1995	Flemings	Columbia University	\$1,000
1994	Global Basins Research Network	Industry Consortium	\$59,500
1993-1995	Dynamic Enhanced Recovery Technologies	Columbia Subcontract, Department of Energy	\$875,546
1993-1994	Sequence Stratigraphic Interpretation and Stratigraphic Modeling Study of Two Neogene Passive Margins	Columbia Subcontract, American Chemical Society	\$25,091
1992-1993	Upgrades to Lamont's Marine Geo and Geophysics Workstation Network for Analysis, Visualization and Numerical Modeling with Large Datasets	National Science Foundation	\$140,067
1991-1992	Stratigraphic Modeling Program	Chevron	\$25,000
1991-1992	Forward and Inverse Modeling of Two Cretaceous Foreland Basins: A Cooperative Research Program	National Science Foundation	\$113,313

### Grants and Contracts for Facility Improvement

<u>Duration</u>	<u>Title</u>	<u>Source</u>	<u>Amount</u>
2005	Upgrading of Linux Computing Facility for Research in Climate-Change, Glacier Dynamics and Fluid Flow	National Science Foundation	\$44,087
2000-2001	Geoscience Instrumentation and Facilities	National Science Foundation	\$158,047
1999-present	Applied Geophysical Instructional Facility	Shell	\$40,000
1999-2002	Applied Geophysical Instructional Facility	Conoco	\$52,000
1997-present	Applied Geophysical Instructional Facility	Landmark Graphics Corporation	\$4,713,940
1997-1999	Applied Geophysical Instructional Facility	Chevron, Conoco, Dupont, Kerr McGee, Shell, Texaco	\$118,000
1997-1999	Applied Geophysical Instructional Facility	IBM	\$303,390

**Student Funding Raised**

<u>Duration</u>	<u>Title</u>	<u>Source</u>	<u>Amount</u>
2014-2015	Predicting Pressure and Stress State Near Salt in the Mad Dog Region	Statoil	\$58,076
2013-2014	Multi-scale Pore Structure at the Core Scale in Shales	Statoil	\$29,000
2013-2014	Reservoir Pore Pressure Prediction from Shale Pressure Estimation	Statoil	\$58,000
2013-2014	Theory, experiment, and observations of the impact of warming on methane hydrate melting and gas venting in the arctic	NASA	\$30,000
2011- 2012	Residementation of Nankai	Consortium of Ocean Leadership	\$20,000
2006-2007	Devon Energy Fort Valley State University Fellowship	Devon Energy	\$20,000/yr.
2006-2007	Marathon Oil Fort Valley State University Fellowship	Marathon Oil	\$30,000/yr.
2006-2007	ExxonMobil Fort Valley State University Fellowship	ExxonMobil	\$25,000/yr.
2006-2007	Shell Oil Fort Valley State University Fellowship	Shell Oil Company	\$30,000/yr.
2006-2007	Chevron GeoSystems Fellowship	Chevron	\$30,000/yr.
2006-2007	Shell GeoSystems Fellowship	Shell	\$60,000/yr.
2005-2007	Chevron Undergraduate Diversity Fellowship	Chevron	\$1,000/yr.
2005-2007	BP Fort Valley State University Fellowship	BP	\$15,000/yr.
2005-2007	Chevron Fort Valley State University Fellowship	Chevron	\$15,000/yr.
2005-2006	Newfield Undergraduate and Graduate Fellowships	Newfield	\$2,000
2005-2006	Chevron GeoSystems Fellowship	Chevron	\$15,000
2005-2006	Shell GeoSystems Fellowship	Shell	\$30,000
2004-2007	ConocoPhillips GeoPressure Fellowship	ConocoPhillips	\$20,000/yr.
2004-2007	ConocoPhillips Graduate Fieldwork Fellowship	ConocoPhillips	\$10,000/yr.
2003-2004	ConocoPhillips GeoPressure Fellowship	ConocoPhillips	\$29,000
2001-2005	ChevronTexaco GeoSystems Fellowship	ChevronTexaco	\$60,000/yr.
2001-2005	BP Graduate Fellowship	BP	\$15,000/yr.
2001-2004	Amerada Hess GeoSystems Graduate Scholarship	Amerada Hess	\$10,000/yr.
1998-2005	Shell GeoSystems Fellowship	Shell	\$60,000/yr.
1998-2001	Chevron GeoSystems Fellowship	Chevron	\$16,000/yr.
1998-2001	Texaco GeoSystems Fellowship	Texaco	\$55,000/yr.
1996-2007	ExxonMobil Fellowship in Quantitative Geosciences	ExxonMobil	\$20,000/yr.

**Declined:**

<u>Submitted</u>	<u>Title</u>	<u>Source</u>	<u>Amount</u>
2014	Observing the Transient Temperature and Pressures of the Tohoku Earthquake: Observing Fabrication	IODP-MI	\$281,929
2014	Multi-Scale Mass Transport in Shales	American Chemical Society	\$100,000
2014	Determining the Best Approach for Assessing the Impact of Recent Ocean Warming and Pore Pressure Rebound on Slope Stability: an IODP Workshop for Proposal 811	IODP	\$39,340
2013	Multi-Scale Mass Transport in Shales	American Chemical Society	\$100,000

2012	Evaluation of Potential Hydrate Resources of Colombia Caribbean Coast	Agencia Nacional de Hidrocarburos	\$225,000
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## NEW PROGRAMS DEVELOPED

2006	Geohazards, Geomechanics, and GeoFluids Initiative (with Elsworth, Marone, Saffer)
Fall 1999	Petroleum GeoSystems Master's Degree Initiative

## NEW FACILITIES DEVELOPED

Fall 1998	Industry Projects Office
Fall 1998	Petroleum GeoSystems Initiative Office
Fall 1998	Petroleum GeoSystems Research Laboratory
Fall 1997	Applied Geophysical Instructional Facility (AGIF)

## COMPUTER SOFTWARE DEVELOPED

2014-present	UT Centroid
2001-present	PSTAR
2001-present	Overburden Evaluator
2001-present	PSU-FRAC
1998-present	STORMSED1.0 <i>see</i> - Cookman, J., <b>Flemings, P.B.</b> , 2001, STORMSED1.0: Hydrodynamics and Sediment Transport in a 2-D Steady-State, Wind- and Wave-Driven, Coastal Circulation Model, <i>Computers and Geosciences</i> 27 (6): 647-674.
1996-1997	Strata: Basin Modeling Tool <i>see</i> - <b>Flemings, P.B.</b> , and Grotzinger, J.P., 1996, STRATA: Freeware for Solving Classic Stratigraphic Problems. <i>GSA Today</i> , vol. 6, no. 12, p. 1-7.

## EDUCATIONAL ACTIVITIES

### SUPERVISION OF STUDENT RESEARCH

#### The University of Texas at Austin

#### Graduate Thesis Research (As primary advisor)

##### M.S. Students

	Name	Degree Sought	Status
1.	Hilary Strong	M.S.	Completed 2009 (ExxonMobil)
2.	Andrew Smith	M.S.	Completed 2012 (ExxonMobil)
3.	Michael Merrell	M.S.	Completed 2012 (ConocoPhillips)
4.	Baiyuan Gao	M.S.	Completed 2013 (pursuing PhD)
5.	William Betts	M.S.	Completed 2014 (Halliburton)
6.	Michael Cronin	M.S.	Completed 2015 (Anadarko)
7.	Will Pinkston	M.S.	Completed 2017 (Hess)
8.	Landon Lockhart	M.S.	Completed 2018
9.	David Wiggs	M.S.	Completed 2021
10.	Gabrielle (Abby) Varona	M.S.	Completed 2022
11.	Addison Savage	M.S.	In Progress

##### PhD Students

	Name	Degree Sought	Status
1.	Derek Sawyer	Ph.D.	Completed 2010 (ExxonMobil)
2.	Julia Schneider	Ph.D.	Completed 2011 (Texas A&M)



3.	Yao You	Ph.D.	Completed 2013 (Hess)
4.	Dylan Meyer	Ph.D.	Completed 2018
5.	Baiyuan Gao	Ph.D.	Completed 2018
6.	Kristopher Darnell	Ph.D.	Completed 2018
7.	Kevin Meazell	Ph.D.	Completed 2021
8.	Sebastian Ramiro Ramirez	Ph.D.	Completed 2022
9.	Landon Lockhart	Ph.D.	In Progress
10.	Zachary Murphy	Ph.D.	In Progress

**Graduate Thesis Research (As co-advisor)****M.S. Students**

	<b>Name</b>	<b>Degree Sought</b>	<b>Status</b>
1.	Lucas Fidler	M.S.	Completed 2011
2.	Michael Braunscheidel	M.S.	Incomplete

**PhD Students**

	<b>Name</b>	<b>Degree Sought</b>	<b>Status</b>
1.	Kylara Martin	Ph.D.	Completed 2011
2.	Kyung Chang	Ph.D.	Completed 2013

**Membership on Graduate Degree Candidates' Committee**

	<b>Name</b>	<b>Degree Sought</b>	<b>Status</b>
1.	Kylara Martin	Ph.D.	Completed 2011
2.	Kyung Won Chang	Ph.D.	Completed 2013
3.	Emily Graham	M.S.	Completed 2013
4.	Alexander Urquhart	M.S.	Completed 2013
5.	Yao Peng	Ph.D.	Completed 2011
6.	Yang Xue	Ph.D.	Completed 2014
7.	Brendan Anthony Casey	Ph.D. (MIT)	Completed 2014
8.	Amy Adams	Ph.D. (MIT)	Completed 2014
9.	John Nowinski	Ph.D.	Completed 2014
10.	Amer Dierieh	Ph.D. (MIT)	Completed 2016
12.	Gregory Hurd	Ph.D.	Completed 2016
13.	Andrea Nolting	Ph.D.	Completed 2017
14.	Xin Liu	M.S.	Completed 2021
15.	Peter Miller	Ph.D.	In Progress
16.	Cansu Demir	Ph.D.	In Progress
17.	Stephanie Forstner	Ph.D.	In Progress
18.	Artur Davletshin	Ph.D.	In Progress
19.	Joshua Edgington	Ph.D.	In Progress
20.	Caroline McKeighan	Ph.D.	In Progress

**Undergraduate Thesis Research (As primary advisor)**

	<b>Name</b>	<b>Degree Sought</b>	<b>Status</b>
1.	Carmen Atkins	B.S. (Geosciences)	Completed 2012 (Berger Geosciences)

**Penn State****Graduate Thesis Research (As primary advisor)****M.S. Students**

	<b>Name</b>	<b>Degree Sought</b>	<b>Status</b>
1.	Tucker Burkhart	M.S.	Completed 1997

2.	David Gordon	M.S. (Geosciences)	Completed 1997
3.	Andrew Hoover	M.S. (Geosciences)	Completed 1997
4.	Beth Stump	M.S. (Geosciences)	Completed 1998
5.	Janette Cookman	M.S. (Geosciences)	Completed 1999
6.	John Metzger	M.S. (Geosciences)	Completed 1999
7.	Nathan Kaleta	M.S. (Geosciences)	Completed 2001
8.	Jacek Lupa	M.S. (Geosciences)	Completed 2001
9.	Alastair Swanston	M.S. (Geosciences)	Completed 2001
10.	Kevin Best	M.S. (EGEE)	Completed 2002
11.	Joseph Comisky	M.S. (Geosciences)	Completed 2002
12.	Eric Kuhl	M.S. (EGEE)	Completed 2003
13.	Tin Wai Lee	M.S. (Geosciences)	Completed 2003
14.	Ben Seldon	M.S. (Geosciences)	Completed 2003
15.	Beth Strickland	M.S. (Geosciences)	Completed 2003
16.	Aaron Janssen	M.S. (Geosciences)	Completed 2004
17.	Chekwube Enunwa	M.S. (Geosciences)	Completed 2005
18.	Umut Gokcesu	M.S. (EGEE)	Completed 2005
19.	Derek Sawyer	M.S. (Geosciences)	Completed 2005
20.	Joseph Razzano	M.S. (Geosciences)	Completed 2006
21.	Asha Ramgulam	M.S. (EGEE)	Completed 2006
22.	Louanne Christopher	M.S. (Geosciences)	Completed 2006
23.	Audrey Hucks Sawyer	M.S. (Geosciences)	Completed 2007
24.	Doruk Seren	M.S. (EGEE)	Completed 2008
25.	Matthew Reilly	M.S. (Geosciences)	Completed 2008
26.	Charles Bohn	M.S. (Geosciences)	Completed 2008
27.	Joseph Valenti	M.S. (Geosciences)	Completed 2009

**PhD Students**

	<b>Name</b>	<b>Degree Sought</b>	<b>Status</b>
1.	Anil Deshpande	Ph.D. (Geosciences)	Completed 1997
2.	Brandon Dugan	Ph.D. (Geosciences)	Completed 2003
3.	Xiaoli Liu	Ph.D. (Geosciences)	Completed 2006
4.	Hui Long	Ph.D. (EGEE)	Completed 2007

**Graduate Thesis Research (As co-advisor)****M.S. Students**

	<b>Name</b>	<b>Degree Sought</b>	<b>Status</b>
1.	Matt Bennett	M.S. (EGEE)	Completed 1996
2.	Dae Sung Lee	M.S. (EGEE)	Completed 2001
3.	Tiancong Hong	M.S. (Geosciences)	Completed 2004

**PhD Students**

	<b>Name</b>	<b>Degree Sought</b>	<b>Status</b>
1.	Laurel Alexander	Ph.D. – at MIT	Completed 1995
2.	Jennifer Carlson	PhD. – at MIT	Completed 1996
3.	Thomas Finkbeiner	Ph.D. (Geosciences)	Completed 1998
4.	Victor Siahaan	Ph.D. (EGEE)	Completed 2002

**Post-doctoral and Visiting Scholars Supervised**

Matthew VanWie, 5/1999-8/1999 (supported by Flemings)

Bruce Hart, Post-Doctoral Scientist, 6/1994-6/1996 (supported by Flemings)

Insun Song, Research Associate, 10/2006-2010 (Penn State)

**Membership on Graduate Degree Candidates' Committee**

	<b>Name</b>	<b>Degree Sought</b>	<b>Status</b>
1.	Mohammed Al-Mugheiry	M.S. (Geosciences)	Completed 1995
2.	Wei He	Ph.D. (Geosciences)	Completed 1996
3.	David McConaughy	M.S. (Geosciences)	Completed 1997
4.	Ruth Robinson	Ph.D. (Geosciences)	Completed 1997
5.	Lee Colarusso	M.S. (Geosciences)	Completed 1998
6.	Tim White	Ph.D. (Geosciences)	Completed 1999
7.	Robert Dias	Ph.D. (Geosciences)	Completed 2000
8.	Dimitri Abbado	M.S. (Geosciences)	Completed 2001
9.	Ian Brewer	Ph.D. (Geosciences)	Completed 2001
10.	Laura Savalli	M.S. (Geosciences)	Completed 2003
11.	Nikolai Pedentchouk	M.S. (Geosciences)	Completed 2004
12.	Dae Sung Lee	Ph.D. (EGEE)	Completed 2006
13.	Douglas Edmunds	M.S. (Geosciences)	Completed 2006
14.	Alex McKiernan	Ph.D. (Geosciences)	Completed 2006
15.	Kritika Trakoolngam	M.S. (EGEE)	Completed 2006
16.	Michael Fitzgerald	M.S. (EGEE)	Completed 2007

**Undergraduate Thesis Research (As primary advisor)**

	<b>Name</b>	<b>Degree Sought</b>	<b>Status</b>
1.	Matt Bennett	B.S. (Geosciences)	Completed 1994
2.	Brent Criswell	B.S. (Geosciences)	Completed 1994
3.	Edward Carpanetti	B.S. (Geosciences)	Completed 1995
4.	Randy Geis	B.S. (Geosciences)	Completed 1997
5.	Ryan Shatt	B.S. (Geosciences)	Completed 1997
6.	Patrick Walsh	B.S. (Geosciences)	Completed 1998
7.	Joseph Comisky	B.S. (Geosciences)	Completed 1999
8.	Kyle Straub	B.S. (Geosciences)	Completed 2002
9.	Cody Jones	B.S. (Geosciences)	Completed 2006
10.	Josh Dixon	B.S. (Geosciences)	Completed 2007

**Undergraduate Advising (As thesis committee member or co-advisor)**

J. Aileo, J. Bona, R. Brennan, E. DeRoos, T. Heil, A. Kondas, T. Lippman, L. Mark, J. Mihalcik, M. Panettieri, D. Pinkus, G. Price, E. Scott, D. Whitmire

**POST-DOCTORAL AND VISITING SCHOLARS SUPERVISED**

Alejandro Cardona, Post-Doctoral Scientist, 2020-Present  
 Manasij Santra, Post-Doctoral Scientist, 2016-2021  
 Yi Fang, Post-Doctoral Scientist, 2017-2020  
 Steve Phillips, Post-Doctoral Scientist, 2015-2019  
 Stacey Worman, Post-Doctoral Scientist, 2015-2016  
 Kehua You, Post-Doctoral Scientist, 2013-2015  
 Christian Hermanrud, Visiting Scholar from Statoil, 2012-2013  
 Athma Bhandari, Post-Doctoral Scientist, 2012-2014  
 Julia Schneider Reece, Post-Doctoral Scientist, 2011-2013  
 Gang Luo, Post Doctoral Scientist, 2009-2011  
 Maria Nikolinakou, Post-Doctoral Scientist, 2009-2010  
 Insun Song, Post-Doctoral Associate, 2007-2010

**TECHNICAL STAFF SUPERVISED**

Alexey Portnov, Research Associate, 2021-Present  
 Alejandro Cardona, Post-Doctoral Scientist, 2020-Present

Donald Brooks, Research Engineering/Scientist Associate III, 2020-present  
 Felicia Garcia-Hildenbrand, Senior Research Program Coordinator, 2020-2022  
 Aaron Price, Research Engineering/Scientist Associate III, 2019-2021  
 Constantino Panagopulos, Informational Writer III, 2019-2021  
 Yi Fang, Research Associate, 2020-2021  
 Addison Savage, Research Engineering/Scientist Assistant, 2021-2021  
 Stephen Phillips, Research Associate, 2019-2020  
 Ashley Foltz, Senior Administrative Associate, 2019-2020  
 Lynda Miller, Executive Assistant, 2018-2020  
 Jesse Houghton, Project Manager, 2017-present  
 Jac Erenzil, Executive Assistant, 2017-2018  
 Joshua O'Connell, Research Engineering Associate, 2016-present  
 Ethan Petrou, Research Engineering Associate, 2016-2017  
 Jamie Morrison, Project Manager, 2015-present  
 Kehua You, Research Associate, 2015-present  
 Colleen Morgan, Senior Program Coordinator, 2015-2017  
 Carla Thomas, Science/Technical Project Manager, 2014-present  
 Athma Bhandari, Research Associate, 2014-present  
 Peter Polito, Research Associate: Laboratory Director, 2011-2020  
 Tessa Green, Project Manager, 2010-2016  
 Mahdi Heidari, Research Scientist, 2010-present  
 Maria Nikolinakou, Research Scientist, 2010-present  
 Heather Nelson, Project Assistant, 1998-1999  
 Donnie Brooks, Research Associate, 2011-2015  
 Gang Luo, Research Associate, 2011-2015  
 Kris Darnell, Research Associate, 2009-2010  
 Mark Andrews, Research Associate, 2008-2010  
 Andrew Peterson, Undergraduate Research Assistant, 2006-2007  
 LaMichelle Arnold, Undergraduate Research Assistant, 2006-2007  
 Ryan Jacoby, Research Assistant, 2006-2007  
 Christie Rosenhoover, Staff Assistant, 2006-2007  
 Judi Hite, Staff Assistant, 2005-2005  
 Damian Futrick, Systems Administrator, 2004-2007  
 Christina Conley, Systems Administrator, 2004-2004  
 Stefanie McCormick, Staff Assistant, 2003-2005  
 Frank Kachurak, Systems Administrator, 2001-2003  
 Tom Canich, Systems Administrator, 2001-2007  
 Rachel Altemus, Staff Assistant, 2000-2003  
 Michael Manes, Research Assistant, 1999-1999  
 Nancy Levitsky, Staff Assistant, 1998-2000  
 James Ashbaugh, Research Assistant, 1998-2000  
 John Miley, Systems Administrator, 1997-2001

#### **AWARDS MY STUDENTS/STAFF HAVE WON**

2022	Jesse Houghton: Outstanding Staff Support Award
2022	Abby Varona: Student Research Symposium: Second Place Late Career Masters
2022	Kevin Meazell: Departmental Awards: Best Graduate Student Paper: Kevin Meazell
2022	Abby Varona: Departmental Awards: Best MSc Student Presentation
2022	Sebastian Ramiro-Ramirez: Departmental Awards: Best PhD Student Presentation
2022	Landon Lockhart: East Texas Geological Society Scholarship
2021	Carla Thomas: Outstanding Staff Support Award
2020	Zach Murphy: UTIG Bridging Units Graduate Fellowship
2019	Sebastian Ramiro-Ramirez: Equinor Fellowship

2019	Landon Lockhart: Halliburton Landmark Earth Model Award
2018	Josh O'Connell: Outstanding Staff Support Award
2017	Kris Darnell: AGU Outstanding Student Paper Award Winner in Hydrology
2017	Kevin Meazell: U.S. Science Support Program for IODP Travel Award
2017	Baiyuan Gao: U.S. Science Support Program Travel Award
2017	Kris Darnell: Ewing/Worzel Fellowship for Spring 2017
2016	Baiyuan Gao: NSF Travel Award, Fall 2016
2016	Tessa Green: UT Institute for Geophysics Eleanor Picard Excellence Award
2016	Kris Darnell: Best Paper Published by a JSG Graduate Student Award
2015	Will Pinkston: JSG Recruiting Fellowship from the Chevron Corporation
2015	Will Pinkston: Teagle Fellowship in Petroleum Geology
2015	Baiyuan Gao: AGU Travel Award, Fall 2015
2015	Kris Darnell: Whitney Endowed Presidential Scholarship for Fall 2015 – Spring 2016
2015	Baiyuan Gao: Whitney Endowed Presidential Scholarship for Fall 2015 – Spring 2016
2015	Dylan Meyer: GeoPRISMS Student Presentation Honorable Mention
2015	Dylan Meyer: Chevron Graduate Student Fellowship for Spring 2015
2014	Dylan Meyer: JSG Energy Geosciences SEED Grant
2014	Dylan Meyer: AGU 2014 Outstanding Student Presentation Award in Biogeosciences
2014	Dylan Meyer: Banks Fellowship for Spring and Summer 2014
2014	Dylan Meyer: JSG Energy Geosciences Seed Grant
2013	Kris Darnell: NASA Fellowship Fall 2013 thru Summer 2014
2013	Dylan Meyer: Gale White Fellowship Fall 2013
2013-2016	Baiyuan Gao: Statoil Fellowship Fall 2013 thru Summer 2016
2013	Michael Merrell: Statoil Fellowship
2012-2013	Andrew Smith: US Student Fulbright Award for 2012-2013 to Norway
2013	Maria Nikolinakou: member of the organizing committee for the 47th U.S. Rock Mechanics/Geomechanics Symposium, in San Francisco, June 2013
2012	Dylan Meyer: 2012, University of Texas Institute of Geophysics Fellowship
2012	Dylan Meyer: 2012, Best Student Poster Presentation Award, Eckerd College Science Symposium
2012	Maria Nikolinakou: Future Leaders of the American Rock Mechanics and Geomechanics Association
2012	Maria Nikolinakou: invited keynote speaker at the 3rd Geoqus Conference in Potsdam, Germany
2012	Yao You: Ewig Worzel Fellowship, UTIG
2012	Andrew Smith: Best M.S. Tech Session Speaker (Spring 2012), Department of Geological Sciences
2012	Andrew Smith: Outstanding Student Paper Award, AGU Ocean Sciences Section
2012	Andrew Smith: Best Student Presentation at the Gordon Research Conference on Gas Hydrates
2012	Michael Merrell: Statoil Fellowship for Predicting Pressure and Stress State near Salt in the Mad Dog Region
2012	Michael Cronin: Mruk Family Named Grant from AAPG Foundation
2012	Andrew Smith: ConocoPhillips SPIRIT Scholar
2012	Julia Schneider Reece: Best Paper Award, Department of Geological Sciences
2011-2012	Michael Cronin: Jackson School Endowed Graduate Fellowship (ConocoPhillips)
2011	Julia Schneider Reece: Outstanding Student Paper Award, AGU Fall Meeting, Mineral and Rock Physics Section
2011	Julia Schneider Reece: Best Student Speaker Award, Technical Sessions, UT JSG, Fall 2011
2011	Julia Schneider Reece: Ewing Worzel Fellowship, UTIG, Fall 2011
2011	Yao You: Best Presentation, AGU Fall Meeting
2011	Yao You: 'Best Poster' award for his presentation "Coupling of the evolution of pore pressure and the retrogressive slope failure during breaching " at the recent SIAM Conference on Mathematics & Computational Issues in the Geosciences held in Long Beach California.
2010	Julia Schneider: Outstanding Teaching Assistant, Jackson School of Geosciences
2010-2011	Julia Schneider Reece: 2010-2011 Schlanger Scientific Ocean Drilling Fellowship Program Winner
2010	Derek Sawyer: Tech Sessions Best Speaker, Jackson School of Geosciences

2010	Julia Schneider Reece: 'Outstanding Student Paper Award' from the Mineral and Rock Physics Section of AGU. Her poster was presented at the Fall 2010 AGU meeting in San Francisco and was entitled "Experimentally derived model to predict permeability behavior of mudstones."
2010	Yao You: 'Best Presentation' award for his presentation "Coupling of the evolution of pore pressure and the retrogressive slope failure during breaching " at Fall AGU, 2010
2009	Derek Sawyer: Outstanding Student Paper Award, American Geophysical Union Fall Meeting
2004-2005	JOI-USSAC Student Fellowship to Xiaoli Liu, Modeling of Hydrate Systems, \$25,000

## TEACHING HONORS

2003	Received the Pennsylvania State University, College of Earth and Mineral Sciences G. Montgomery and Marion Mitchell Award for Innovative Teaching
1996	Received the Pennsylvania State University, College of Earth and Mineral Sciences Matthew J. and Anne C. Wilson Outstanding Teaching Award

## COURSES TAUGHT

Semester	Course	CREDITS	Course Title	Approx. Enrollment
Spring 1994	Geosc 497g	3	Field Stratigraphy (50%)	7
	Geosc 454	3	The Geology of Oil and Gas	13
Fall 1994	Geosc 497b	3	Advanced Stratigraphy	2
Spring 1995	Geosc 454	3	The Geology of Oil and Gas	12
Fall 1995	Geosc 497b	3	Advanced Stratigraphy	10
Spring 1996	Geosc 596a	3	3-D Seismic Processing	3
	Geosc 454	3	The Geology of Oil and Gas	15
Fall 1996	Geosc 497b	3	Advanced Stratigraphy	8
Spring 1997	Geosc 454	3	The Geology of Oil and Gas	21
	Geosc 597d	3	Field Stratigraphy (50%)	10
Fall 1997	Geosc 497k	3	Multichannel Seismic Processing and Interpretation (50%)	13
	Geosc 597d	3	Field Stratigraphy (50%)	4
Spring 1998	Geosc 454	3	The Geology of Oil and Gas	23
	Geosc 497k	3	Multichannel Seismic Processing and Interpretation (50%)	5
Spring 1999	Geosc 497b	3	Advanced Stratigraphy	10
	Geosc 454	3	The Geology of Oil and Gas	17
Fall 1999	Geosc 558	3	Multichannel Seismic Processing and Interpretation (50%)	9
	Geosc 598a	1	Petroleum GeoSystems Seminar	4
Spring 2000	Geosc 454	3	The Geology of Oil and Gas	22
	Geosc 597d	3	Field Stratigraphy (50%)	13
	Geosc 598a	3	Petroleum Geosystems	5
Fall 2000	Geosc 479	3	Advanced Stratigraphy	7
	Geosc 597g	3	GeoFluids Mechanics (50%)	7
Spring 2001	Geosc 454	3	The Geology of Oil and Gas	15
Fall 2001	Geosc 598a	3	Petroleum Geosystems (50%)	11
	Geosc 598b	1	Petroleum GeoSystems Seminar	4
	Geosc 598c	3	Geofluids Seminar	8
Spring 2002	Geosc 454	3	The Geology of Oil and Gas (10%)	9
	Geosc 558	3	Multichannel Seismic Processing and Interpretation (10%)	9
Spring 2003	Geosc 479	3	Advanced Stratigraphy	
Fall 2003	Geosc 558	3	Multichannel Seismic Processing and Interpretation (50%)	14

	Geosc 598b	1	Petroleum GeoSystems Seminar	4
Spring 2004	Geosc 454	3	The Geology of Oil and Gas	14
	Geosc 572	3	Field Stratigraphy (50%)	13
	Geosc 597	1	Geofluids Seminar	5
	Geosc 598A	3	Petroleum GeoSystems (50%)	11
Fall 2004	Geosc 479	3	Advanced Stratigraphy (50%)	12
	Geosc 558	3	Multichannel Seismic Processing and Interpretation (50%)	12
Spring 2005	Geosc 454	3	The Geology of Oil and Gas	18
Fall 2005	Geosc 597	1	Geofluids Seminar	7
Spring 2006	Geosc 454	3	The Geology of Oil and Gas	26
	Geosc 572	3	Field Stratigraphy (50%)	12
	Geosc 597I	1	Geofluids Seminar (20%)	8
Fall 2006	Geosc 497	3	Advanced Stratigraphy (50%)	8
	Geosc 558	3	Multichannel Seismic Processing and Interpretation (50%)	8
	Geosc 598A	1	Petroleum GeoSystems Seminar	5
	Geosc 597C	1	GeoFluids/Mudrock Seminar	5
Spring 2007	Geosc 454	3	The Geology of Oil & Gas	26
	Geosc 597K	1	Petroleum GeoSystems Seminar	4
	Geosc 598F	1	G3 Seminar (50%)	5
Fall 2007	Geosc 558	1	Petroleum GeoSystems Seminar	5
Spring 2008	GEO 391	3	Guadalupe Mountain Stratigraphy	10
Fall 2008	GEO 191	1	Earth Surface and Hydro. Seminar	5
Spring 2009	GEO 391	3	Crustal GeoFluids	14
Fall 2009	GEO 191	1	Earth Surface and Hydro. Seminar	4
Spring 2010	GEO 330K	3	Energy Exploration	126
Spring 2011	GEO 391	3	Crustal Fluids	14
	GEO 330K	3	Energy Exploration	126
Spring 2012	GEO 330K	3	Energy Exploration	71
	GEO 391/371C	3	Field Stratigraphy: Guadalupe Mtns	18
Spring 2013	GEO 330K	3	Energy Exploration	54
	GEO 391	3	Crustal GeoFluids	16
Spring 2015	GEO 330K	3	Energy Exploration	27
Fall 2015	GEO 291	2	Fire/Ice: Methane Hydrates Geosystems	6
Spring 2016	GEO 330K	3	Energy Exploration	15
	GEO 382D	3	Crustal GeoFluids	15
Spring 2017	GEO 330K	3	Energy Exploration	15
Spring 2018	GEO 330K	3	Energy Exploration	15
Spring 2018	GEO 391	3	Methane Hydrate	
Spring 2019	GEO 382D	3	Crustal Geofluids	8
Fall 2019	GEO 291	2	Fire/Ice: Methane Hydrates Geosystems	5
Spring 2020	GEO 291	2	Geomechanics and Fluid Flow in Subduction Zones	
Spring 2021	GEO 382D	3	Crustal GeoFluids	
Fall 2021	GEO 382D	3	Crustal GeoFluids	10
Fall 2022	GEO 382D	3	Crustal GeoFluids	
Fall 2022	GEO 191	1	Geomechanics Seminar (co-taught with D.Saffer)	
Fall 2022	UGS 302	3	Energy & the Environment (co-taught with D. DiCarlo)	

**NEW COURSES DEVELOPED**

Geo 371T	Lab to Planet: Earth Dynamics, Under Development
Geo 391	Crustal GeoFluids
Geosc Special Topics	G3: GeoMechanics, GeoFluids, GeoHazards Seminar, Fall 2005
Geosc Special Topics	Geofluids Seminar, Fall 2000
Geosc 598a	Reservoir GeoSystems, Fall 1999
Geosc 558	Multi-Channel Seismic Processing and Interpretation, Spring 1997
Geosc 479	Advanced Stratigraphy, Fall 1994
Geosc 572	Field Stratigraphy, Spring 1994, (with Patzkowsky)

**ESTABLISHED COURSES REVISED**

Geosc 454	The Geology of Oil and Gas, Spring 1994
Eceem 490	Finance: Applications for Energy and Minerals, Spring 2001
Geo330K	Energy Exploration

**FIELD TRIPS LED:**

Fall 2021:	Crustal Fluids Field trip for graduate course to California
Spring 2019:	Crustal Fluids Field trip for graduate course to California
Spring 2013:	Crustal Fluids Field trip for graduate course to California
Spring 2012:	Graduate Student Field trip to Guadalupe Mountains
Spring 2011;	Crustal Fluids Field trip for graduate course to California
Spring 2010:	Crustal Fluids Field trip for graduate course to California
Spring 2009:	Crustal Fluids Field trip for graduate course to California
Spring 2008:	Graduate Student Field trip to Guadalupe Mountains

**SERVICE TO THE UNIVERSITY, PUBLIC AND PROFESSION****SERVICE TO THE UNIVERSITY OF TEXAS****Service to the Department & Jackson School of Geosciences & University**

2022	Program Lead, Subsurface, Surface & Life Program
2021	Member, Graduate Studies Committee
2021	Member, UTIG Awards Committee
2020-present	Member, Graduate Admissions & Support Committee
2018	UT Libraries Research & Pizza Series, Methane Hydrate Coring Expedition
2017	UT Energy Institute: Energy Journalism Workshop, Austin, TX, Sep 2017 (invited speaker)
2017	JSG Friends and Alumni Network Board Meeting Presentation, Methane Hydrates
2017	JSG Advisory Council Presentation, Methane Hydrates
2017	UT Energy Institute, Energy Journalism Workshop: The Energy Potential of Fire and Ice
2015	Member, Consultative Committee for Evaluation of Dean of Jackson School of Geosciences
2014-2015	Chair, Strategic Planning Committee (Department of Geological Sciences)
2012-present	Member, Graduate Studies Committee (Department of Geological Sciences)
2013	Chair, Faculty Evaluation Committee (Department of Geological Sciences)
2010-2012	Chair, Appointments Committee-Jackson School
2010-August	Presented talk on research for Jackson School Reunion
2009-2011	Member, Endowment Committee (Jackson School)
2009-2010	Member, Appointments Committee (Jackson School)
2009-2012	Chair, Graduate Studies Committee (Department of Geological Sciences)
2009-2009	Member, IT Search Committee (Department of Geological Sciences)
2009-2009	Chair, Energy Theme Search Committee (Jackson School)
2009	Chair Sed Erg (Jackson School)
2008-2012	Graduate Adviser, Dept. of Geological Science (Jackson School)



2008-2009	Member, UTIG Director Search Committee (UTIG)
2008-2009	Chair, Schoch Building Move Committee (Department of Geological Sciences)
2008-2009	Chair, Ad Hoc Department Computing Committee (Department of Geological Sciences)
2007-2009	Member, Energy Theme Search Committee (Jackson School)
2007-2009	Member, Departmental Endowed Position Committee (Department of Geological Sciences)

## **SERVICE TO PENN STATE**

### **Service to the Department**

2003-2007	Chair, Department Computing Committee
2003-2004	Member, Executive Committee
2003-2004	Member, Promotion and Tenure Committee
2003-2004	Member, Broad Search Faculty Search Committee
2001	Member, Search Committee for Geophysics faculty position
2000-2001	Member, Search Committee for Seismology faculty position
1999	Member, Search Committee for Crustal Geophysics faculty position
1998-2001	Chair, Department Computing Committee
1998-2000	Member, Search Committee for Geodynamics faculty position
1997	Chair, Search Committee for Hydroscience faculty position
1994-1995	Rover, Graduate Student Candidacy Exams

### **Service to the College**

2004-2005	Co-Chair, Deike Basement Renovation Committee
2003-2004	Member, AESEDA Leadership Committee
2003	Chair, Strategic Planning Committee for the Alliance for Earth Sciences, Engineering, and Development in Africa (AESEDA)
2000	Member, Computing Committee
1999-2007	Co-Director, Petroleum GeoSystems Initiative
1999-2007	Co-Chair, Petroleum GeoSystems Curriculum Committee

## **SERVICE TO BUSINESS AND INDUSTRY**

2019	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms, and Workflows, taught in Houston for Nautilus (October, 2019)
2018	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms, and Workflows, taught in Houston for Nautilus (October, 2018)
2017	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms, and Workflows, taught in Houston for Nautilus (October, 2017)
2016	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms, and Workflows, taught in Houston for Nautilus (June, 2016)
2015	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms, and Workflows, taught in Houston for Nautilus (September, 2015)
2015	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms, and Workflows, taught in Houston for Nautilus (June, 2015)
2015	Met with Franklin Orr, the Under Secretary for Science and Energy for the US Department of Energy (April, 2015)
2014	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms and Workflows, taught in Houston for Nautilus (November, 2014)
2014	Lecturer, Gulf of Mexico Petroleum Systems, taught in Covington, LA for Nautilus (October, 2014)
2014	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms and Workflows, taught in Houston for Nautilus (September 2014)
2013	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms and Workflows, taught in Houston for Nautilus (November 2013)

2013	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms and Workflows, taught in Houston for Nautilus (September 2013)
2013	Consultant, Husky Energy
2012	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms and Workflows, taught in Houston for Nautilus (September 2012)
2012	Expert Witness, Chevron Brazil
2009-present	Director UT GeoFluids Consortium (Run Annual Meeting hosting ~75 industry specialists)
2011	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms and Workflows, taught in Houston for Nautilus (November 2011)
2011	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms and Workflows, taught in Norway for Statoil (October 2011)
2009	Co-hosted Fort Valley State University undergraduates for U.T. visit (January, 2009)
2008	Visited Fort Valley State University (HBCU) as part of Career Energy Day (March 2008)
2008	Hosted Fort Valley State University undergraduates for U.T. visit (April, 2008)
2004-2009	Director, GeoFluidsIII Consortium
2002-2004	Director, GeoFluidsII Consortium
1999-present	Manager, GeoFluids and GeoSystems Office
1999-2007	Liaison, Departmental Industry Recruiting Program
1999	Participant, Ocean Drilling Program (ODP)-Industry workshop. Mandate: find common scientific problems of interest to both industry and scientific community
1998-2001	Director, Penn State Time-Lapse Seismic Consortium
1998-2001	Director, Penn State GeoFluids Consortium
1998	Leader, Gas Research Industry Workshop, teaching methods to predict overpressure in sedimentary basins
1995-1998	Co-Director, Lamont-Penn State 4-D Seismic Consortium

### **SERVICE TO GOVERNMENT AGENCIES**

2015-2017	Member, Methane Hydrate Advisory Committee (An Advisory Committee to the Secretary of Energy)
2014-2015	Chairperson, Methane Hydrate Advisory Committee (An Advisory Committee to the Secretary of Energy)
2010-2013	Co-Chairperson, Methane Hydrate Advisory Committee (An Advisory Committee to the Secretary of Energy)
2010	Informal Advisor to Energy Secretary Stephen Chu's Science team on the BP Macondo Well.
2001	Invited Speaker, House of Representatives, Washington, DC, presented poster on ocean drilling in passive margins to understand crustal fluid flow as part of "Earth Science Week"

### **PROFESSIONAL JOURNAL EDITORSHIPS**

2003-2009	Associate Editor, <i>Geofluids</i>
1996-2012	Associate Editor, <i>Basin Research</i>
1993-1997	Associate Editor, <i>Journal of Sedimentary Research</i>

### **SERVICE TO PROFESSIONAL ORGANIZATIONS**

2020-present	Member Macelwane Awards Committee, American Geophysical Union
2020	Chair at AAPG Annual Convention & Exhibition for Sessions on Analysis of Natural Gas Hydrate Systems
2015-2016	American Geophysical Union, Chair of the Asahiko Taira International Scientific Ocean Drilling Research Prize Committee
2014	Visiting Research Scientist, Woods Hole Oceanographic Institution, July to August, 2014
2013	Visiting Research Scientist, Woods Hole Oceanographic Institution, July 1 to August 15, 2013
2012	Shipboard Scientist, Expedition 342 JOIDES Resolution cruise, June 2012
2012	Chair 2 <sup>nd</sup> Gordon Research Conference in Gas Hydrates
2011	Co-Convener, GeoPressure 2011, Biennial conference on overpressure.

2010-2011	Member Organizing Committee for International Conference on Geopressure (Galveston, 10/4/2011)
2010-present	Member Science Proposal Writing Committee—Margins
2010	Vice Chair 1 <sup>st</sup> Gordon Research Conference in Gas Hydrates
2010-present	Member GeoPrisms Steering Committee
2010	Co-Convener Rifting Margins Workshop, Nov. 2010.
2009-present	Member IODP Board of Governors
2008-present	Member Colorado School of Mines Department of Geological Engineering Review Committee
2005-2008	Chairperson, IODP Engineering Development Panel
2005	Co-Chief Scientist, IODP Expedition 308, Gulf of Mexico Hydrogeology
2004	Convener, Downhole Tools Workshop (JOI-USSAC supported workshop)
2003-2006	Served as member of the AAPG Research Committee
2003	Shipboard Scientist, JAMSTEC KR03-05 data recovery cruise, Yokohama, Japan, May 2003
2003	Served as Shorebased Scientists for ODP Leg 204
2002	ACORK specialist, Ocean Drilling Program data recovery cruise
2001-2002	Member, Interim Science Steering and Evaluation Panel for the Environment, guides the scientific groundwork for International Ocean Drilling Program
2001	Co-Chair American Geophysical Union Session in Dynamics of Gas Hydrate Reservoirs and Similar Shallow Marine Flow Systems
2001	Logging/CORK Specialist, Ocean Drilling Program Cruise, Leg 196
2000	Chair, American Association of Petroleum Geologists Session in Geopressure and Trap Integrity
1999-2002	Member, JOI Pollution Prevention and Safety Panel, evaluates safety of Ocean Drilling Program sites
1999	Participant, Ocean Drilling Program (ODP)-Industry workshop. Mandate: find common scientific problems of interest to both industry and scientific community
1999	Participant, National Science Foundation Special Sedimentary Geosciences Workshop
1997	Logging Scientist, Ocean Drilling Program Cruise, Leg 174A
1997-2000	Member, Scientific Measurements Panel of the Ocean Drilling Program, evaluates and strengthens ability of the JOIDES Resolution to make scientific measurements
1993	Chair, SEPM Finance, mid-year meeting

#### **PROPOSALS REVIEWED FOR:**

American Chemical Society, Department of Energy, Petroleum Research Fund, The National Science Foundation, NSERC