

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
2022-2024	Associate Chair, Department of Geological Sciences, U.T. 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 Earth and Planetary 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

2025	Jackson School Knebal Teaching Award for Teaching Innovation
2024	AAPG Robert R. Berg Outstanding Research Award
2023	Jackson School Walther Award for Research Excellence
2021	AAPG George C. Matson Memorial Award (My student, K. Meazell, was the primary author).
2016	Jackson School of Geosciences Joseph C. Walther Jr. Excellence Award
2007-2008	JOI-USSAC Distinguished Lecturer
2006	National Academy of Sciences Kavli Frontiers of Science Fellow and Speaker
2006	AAPG Distinguished Lecturer
2003	Penn State EMS College Mitchell Award for Innovation in Teaching
2001	Best Paper Award, STORMSED. Computers and Geosciences 27 (6): 647-674.
1994-1997	Shell Faculty Fellow
1997-Present	Geological Society of America Fellow
1996	Penn State EMS College Wilson Teaching Award
1995	Best Paper, J.C. Cam Sproule Memorial Award, AAPG Bulletin 79 (12): 1737-1756.

LEADERSHIP

2013-Present	Leader of DOE-Funded Hydrate Coring Program. Created, funded, and lead \$110 MM research program sampling and analyzing deepwater hydrate systems
2007-Present	Raised ~\$123 MM through DOE, NSF, and industry to build research program at UT.
2023-2024	UT Aspiring Leaders Academy: Selected for leadership training by Provost. The year-long course exposed me to leadership principles and approaches through weekly workshops.
1998-Present	Lead Scientist: GeoFluids Industrial Associates Consortium. 11 companies support this 20-year research consortium
2024-Present	Member Cornell Department of Earth and Atmospheric Sciences Advisory Committee
2022-2024	Associate Dept. Chair and Program Lead. Led ‘Surface, Subsurface, and Life’ program (one of 3 department programs). Led annual evaluation. Implemented, with leadership team, new curriculum. Revised annual review approach.
2020-2024	Member Macelwane Awards Committee, American Geophysical Union
2020	Chair at AAPG Annual Convention for Sessions on Analysis of Natural Gas Hydrate Systems
2014-2015	Chair, Methane Hydrate Advisory Committee (Advisory Committee to the Secretary of Energy)
2014-2015	Chair, Strategic Planning Committee (Department of Geological Sciences). Led committee to re-structure department into three programs.
2015-2016	Chair of the Asahiko Taira International Scientific Ocean Drilling Research Prize Committee (AGU)
2012	Chair 2 nd Gordon Research Conference in Gas Hydrates
2011	Co-Convener, GeoPressure 2011, Biennial conference on overpressure.
2010-2011	Member Science Proposal Writing Committee—Margins
2010	Member Macondo Well Integrity Team. Advisor to Energy Secretary Stephen Chu. During the Deepwater Horizon blowout, worked in team, in a crisis, to make sound decisions, with limited data, to solve problems.
2009-2012	Member IODP Board of Governors
2008-2009	Member Colorado School of Mines Department of Geological Engineering Review Committee
2005	Co-Chief Scientist IODP Exp. 308: Gulf of Mexico Hydrogeology
2005-2008	Chairperson, IODP Engineering Development Panel
2004	Convener, Downhole Tools Workshop (JOI-USSAC supported workshop)
2001-2002	Member, Interim Science Steering and Evaluation Panel for the Environment, guides the scientific groundwork for International Ocean Drilling Program
2001	Invited Speaker, House of Representatives, Washington, DC, as part of “Earth Science Week”
1998-2005	Created and led Petroleum GeoSystems Initiative. Multidisciplinary teams tackling subsurface reservoir challenges
1999-2002	Member, JOI Pollution Prevention and Safety Panel, evaluates safety of Ocean Drilling Program sites
1993	Chair, SEPM Finance, mid-year meeting

PUBLICATIONS & PRESENTATIONS

h-index: 51 (Google Scholar)

i10-index: 164, since 2020: 111 (Google Scholar)

* indicates graduate student advisee

+ indicates post-doc advisee or supervised staff

° indicates undergrad advisee

³ indicates graduate student co-advisee

PATENTS

Flemings, P.B., Gao, B., publication date 2019/1/1, Reservoir Pressure Prediction and Methods of Execution, USA Application No. 14/472,310, Publication No. US 2015/0066459 A1, Patent No.: US 10,167,704 B2

Flemings, P.B., Nikolinakou, M., Heidari, M., filed Feb 22, 2016, Issue Date: 6/1/2021, Pore-Pressure Prediction Based on Seismic Velocities Coupled with Geomechanical Modeling, USA Application No. 15/551,472, Publication No. WO2016134376 A1 (published Aug 25, 2016), Patent No.: 11,022,709

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. **Flemings, P.B.**, et. al., 2025. Proceedings of the UT-GOM2-2 Deepwater Hydrate Coring Expedition, University of Texas Institute for Geophysics, <https://doi.org/10.5281/zenodo.13971076>.
2. You, K., **Flemings, P.B.**, DiCarlo, D. 2025. Hydraulic and thermal controls on gas production from methane hydrate reservoirs. *Marine and Petroleum Geology* 177: 107378.
3. **Flemings, P. B.**, Thomas, C., Phillips, S.C., Collett, T.S., Cook, A.E., Solomon, E., Colwell, F.S., Johnson, J.E. and 36 co-authors, 2024, UT-GOM2-2 Preliminary Report Terrebonne Basin Northern Gulf of Mexico, The University of Texas Institute for Geophysics, <https://doi.org/10.5281/zenodo.13648253>.
4. Bhandari, A.R., Cardona, A., **Flemings, P.B.**, Germaine, J.T. 2024. The geomechanical response of the Gulf of Mexico Green Canyon 955 reservoir to gas hydrate dissociation: A model based on sediment properties with and without gas hydrate. *Marine and Petroleum Geology*. Volume 167, 107000. <https://doi.org/10.1016/j.marpetgeo.2024.107000>.
5. You, K., Thomas, C., Savage, A., Cardona, A., **Flemings, P.B.**, Murphy, Z., O'Connell, J., 2024. Dissolved Methane Diffusion Drives Hydrate-Bearing Pressure Core Degradation during Long-Term Storage in Water. *Energy & Fuels*. Volume 38 (12), 10879-10889. <https://doi.org/10.1021/acs.energyfuels.4c01487>.
6. Ramiro-Ramirez, S., Bhandari, A. R., Reed, R. R., **Flemings, P.B.**, 2024. Permeability of upper Wolfcamp lithofacies in the Delaware Basin: The role of stratigraphic heterogeneity in the production of unconventional reservoirs. *AAPG Bulletin*. Volume 108 (2), 293-326. DOI: 10.1306/12202222033.
7. Portnov, A., **Flemings, P.B.**, You, K., Meazell, K., Hudec, M.R., Dunlap, D.B., 2023. Low temperature and high pressure dramatically thicken the gas hydrate stability zone in rapidly formed sedimentary basins. *Marine and Petroleum Geology*. Volume 158, Part A, <https://doi.org/10.1016/j.marpetgeo.2023.106550>.
8. Cardona, A., Bhandari, A. R., Heidari, M., **Flemings, P. B.**, 2023. The Viscoplastic Behavior of Natural Hydrate-Bearing Sandy-Silts Under Uniaxial Strain Compression (K_0 Loading). *Journal of Geophysical Research: Solid Earth*, 128, e2023JB026976. <https://doi.org/10.1029/2023JB026976>.
9. Nikolinakou, M.A., **Flemings, P.B.**, Gao, B., Saffer, D.M., 2023. The Evolution of Pore Pressure, Stress, and Physical Properties During Sediment Accretion Subduction Zones. *Journal of Geophysical Research: Solid Earth*, 128, e2022JB025504. <https://doi.org/10.1029/2022JB025504>.
10. Bhandari, A.R., **Flemings, P.B.**, Ramiro-Ramirez, S., 2023. Stress-Dependent Matrix Permeability in Unconventional Reservoir Rocks. *Journal of Physics of Fluid Flow and Transport in Unconventional Reservoir Rocks*, 163-175. doi.org/10.1002/J.ch8.
11. Ramiro-Ramirez, S., Bhandari, A.R., **Flemings, P.B.**, Reed, R.M., 2023. Permeability of Upper Wolfcamp Lithofacies in the Delaware Basin: The Role of Stratigraphic Heterogeneity in Production of Unconventional Reservoirs, *The American Association of Petroleum Geologists Bulletin* 108 (2), 293-326. DOI:10.1306/12202222033.
12. Portnov, A., You, K., **Flemings, P.B.**, Cook, A.E., Heidari, M., Sawyer, D.E., Bünz, S., 2023. Dating submarine landslides using the transient response of gas hydrate stability, *Geology* (2023) 51 (4): 387–391. <https://doi.org/10.1130/G50930.1>.
13. Lockhart, L.P., **Flemings, P.B.**, Nikolinakou, M.A., Germaine, J., 2023. Velocity-Based Pore Pressure Prediction in a Basin with Late-Stage Erosion: Delaware Basin, U.S. (150), 106159, doi.org/10.1016/j.marpetgeo.2023.106159.
14. *Varona, G.M., **Flemings, P.B.**, Portnov, A., 2023 Hydrate-Bearing Sands Record the Transition from Ponded Deposition to Bypass in the Deep-Water Gulf of Mexico. *Marine and Petroleum Geology*. 151, 106172. <https://doi.org/10.1016/j.marpetgeo.2023.106172>.
15. +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>.
16. Chen, X., Espinoza, D.N., Tisato, N., **Flemings, P.B.**, 2022. Gas Permeability, Pore Habit, and Salinity Evolution during Methane Hydrate Dissociation in Sandy Sediments. *Energy & Fuels* 36 (16), 9080-9090. <https://doi.org/10.1021/acs.energyfuels.2c01720>.

17. **Flemings, P.B.**, Cook, A.E., Collett, T., Boswell, R., 2022. Gas hydrates in Green Canyon Block 955, deep-water Gulf of Mexico: Part II, Insights and future challenges. AAPG Bulletin, 106 (5), 937-947. <https://doi.org/10.1306/bltnintro030922>.
18. 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.
19. 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>.
20. ⁺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>.
21. ⁺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>.
22. 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>.
23. ⁺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>.
24. 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>.
25. ^{*}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>.
26. 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>.
27. ⁺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>
28. ⁺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>
29. ^{*}Hoogvorst, J.J., Nikolinakou, M.A., Harrold, T.W.D., 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>.
30. ⁺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>.
31. ⁺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>.
32. 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>.
33. ⁺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>.

34. *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>.
35. +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>.
36. +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>.
37. 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>.
38. +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>.
39. **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>.
40. *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>
41. 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>.
42. 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>.
43. *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>.
44. +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.
45. *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.
46. Ruarri, 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>.
47. 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.
48. +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>.
49. +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>.
50. +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>.
51. +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>.

52. *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>.
53. [†]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>.
54. 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>.
55. *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>.
56. 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.
57. [†]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>.
58. [†] 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>.
59. *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>.
60. *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>.
61. [†]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>.
62. [†]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>.
63. [†]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.
64. **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.
65. [†]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>.
66. 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>.
67. 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>.
68. [†]Luo, G., Hudec, M.R., **Flemings, P.B.**, [†]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.
69. *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.
70. [†]Nikolinakou, M.A., [†]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.
71. *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>.

72. 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.
73. [†]Heidari, M., [†]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.
74. 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.
75. *Cronin, M., **Flemings, P.B.**, [†]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.
76. [†]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.
77. [†]Heidari, M., [†]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.
78. [†]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.
79. *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.
80. [†]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.
81. [†]Bhandari, A., **Flemings, P.B.**, [†]Polito, P.J., *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.
82. 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.
83. **Flemings, P.B.**, Reece, J.S., Ditzko, 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.
84. [†]You, K., Kneafsey, T.J., **Flemings, P.B.**, [†]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.
85. Luo, G., **Flemings, P.B.**, Hudec, M.R., [†]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.
86. *Merrell, M.P., **Flemings, P.B.**, Bowers, G.L., 2014, Subsalt Pressure Prediction in the Miocene Mad Dog Field, Gulf of Mexico, *AAPG Bulletin*, v. 98, no. 2, p. 315-340, doi:10.1306/06251312156.
87. [†]Nikolinakou, M.A., **Flemings, P.B.**, Hudec, M.R., 2014, Modeling stress evolution around a rising salt diapir, *Marine and Petroleum Geology*, v. 51, p. 230-238, doi: <http://dx.doi.org/10.1016/j.marpetgeo.2013.11.021>.
88. [†]Nikolinakou, M.A., Hudec, M.R., **Flemings, P.B.**, 2014, Comparison of evolutionary and static modeling of stresses around a salt diapir, *Marine and Petroleum Geology*, v. 57, no. 0, p. 537-545., 10.1016/j.marpetgeo.2014.07.002.
89. *Smith, A. J., **Flemings, P.B.**, Fulton, P. M., 2014, Hydrocarbon flux from natural deepwater Gulf of Mexico vents: *Earth and Planetary Science Letters*, v. 395, no. 0, p. 241-253, doi:10.1016/j.epsl.2014.03.055.
90. Smith, A. J., **Flemings, P.B.**, Liu, X., and Darnell, K., 2014, The evolution of methane vents that pierce the hydrate stability zone in the world's oceans: *Journal of Geophysical Research: Solid Earth*, DOI: 10.1002/2013JB010686.

91. *You, Y., **Flemings, P.B.**, and Mohrig, D., 2014, Mechanics of dual-mode dilative failure in subaqueous sediment deposits: *Earth and Planetary Science Letters*, v. 397, no. 0, p. 10-18, doi: 10.1016/j.epsl.2014.04.024.
92. *You, Y., **Flemings, P.B.**, Mohrig, D. and Germaine, J.T., 2014, How heterogeneity in the shear dilation of a deposit controls the mechanics of breaching slope failure, *J. Geophys. Res. Earth Surf.*, 119, 2381–2395, doi:10.1002/2013JF002983.
93. Adams, A.L., Germaine, J.T., **Flemings, P.B.**, and Day-Stirrat, R.J., 2013, Stress induced permeability anisotropy of resedimented Boston Blue Clay, *Water Resources Research*, p. 11, doi: 10.1002/wrcr.20470.
94. Casey, B., Germaine, J.T., **Flemings, P.B.**, *⁺Reece, J.S., *Gao, B., *Betts, W., 2013, Liquid limit as a predictor of mudrock permeability, *Marine and Petroleum Geology*, v. 44, p. 256-263, doi: <http://dx.doi.org/10.1016/j.marpetgeo.2013.04.008>.
95. Day-Stirrat, R.J., **Flemings, P.B.**, *You, Y., and van der Pluijm, B.A., 2013, Modification of mudstone fabric and pore structure as a result of slope failure: Ursa Basin, Gulf of Mexico, *Marine Geology*, doi: <http://dx.doi.org/10.1016/j.margeo.2013.05.003>.
96. **Flemings, P.B.**, Polito, P.J., Pettigrew, T.L., Iturrino, G.J., Meissner, E., Aduddell, R., Brooks, D., Hetmaniak, C., Huey, D., Germaine, J.T., and IODP Expedition 342 Scientists, 2013, The Motion Decoupled Delivery System: A new deployment system for downhole tools is tested at Site U1402, New Jersey Margin, *Scientific Drilling*, v. 15, doi:10.2204/iodp.sd.15.07.2013.
97. Saffer, D.M., **Flemings, P.B.**, Boutt, D., Doan, M.L., Ito, T., McNeill, L., Byrne, T., Conin, M., Lin, W., Kano, Y., Araki, E., Eguchi, N., and Toczko, S., 2013, In Situ Stress and Pore Pressure in the Kumano Forearc Basin, offshore SW Honshu from Down-hole Measurements During Riser Drilling: *Geochemistry, Geophysics, Geosystems*, v. 14, p. 1454-1470, published May 2013.
98. *Sawyer, D.E., **Flemings, P.B.**, and ⁺Nikolinakou, M., 2013, Continuous deep-seated slope failure recycles sediments and limits levee height in submarine channels, *Geology*, doi: 10.1130/g34870.1.
99. Boutt, D.F., Saffer, D., Doan, M., Lin, W., Ito, T., Kano, Y., **Flemings, P.B.**, McNeill, L.C., Byrne, T., Hayman, N.W., Moe, K.T., 2012, Scale dependence of in-situ permeability measurements in the Nankai accretionary prism: The role of fractures, *Geophysical Research Letters*, v. 39, p. L07302, doi: 10.1029/2012gl051216.
100. Day-Stirrat, R.J., **Flemings, P.B.**, *You, Y., Aplin, A.C., and van der Pluijm, B.A., 2012, The fabric of consolidation in Gulf of Mexico mudstones, *Marine Geology*, v. 295–298, p. 77-85, doi: 10.1016/j.margeo.2011.12.003.
101. Foroozan, R., Elsworth, D., **Flemings, P.B.**, Bilotti, F., and Muhuri, S., 2012, The role of permeability evolution in fault zones on the structural and hydro-mechanical characteristics of shortening basins, *Marine and Petroleum Geology*, v. 29, p. 143-151, doi: 10.1016/j.marpetgeo.2011.08.007.
102. Hickman, S.H., Hsieh, P.A., Mooney, W.D., Enomoto, C.B., Nelson, P.H., Mayer, L.A., Weber, T.C., Moran, K., **Flemings, P.B.**, McNutt, M.K., 2012, Scientific basis for safely shutting in the Macondo Well after the April 20, 2010 Deepwater Horizon blowout, *Proceedings of the National Academy of Sciences of the United States of America*, v. 3, p. 3.
103. ⁺Luo, G., ⁺Nikolinakou, M.A., **Flemings, P.B.**, and Hudec, M.R., 2012a, Geomechanical modeling of stresses adjacent to salt bodies: Part 1 - Uncoupled models, *American Association of Petroleum Geologists Bulletin*, v. 96, p. 43-64.
104. ⁺Luo, G., ⁺Nikolinakou, M.A., **Flemings, P.B.**, and Hudec, M.R., 2012b, Near-salt stress and wellbore stability: A finite-element study and its application, *American Rock Mechanics Association*, v. 12-309, p. 9.
105. ⁺Nikolinakou, M.A., ⁺Luo, G., Hudec, M.R., and **Flemings, P.B.**, 2012, Geomechanical modeling of stresses adjacent to salt bodies: Part 2 Poroelastoplasticity and coupled overpressures, *American Association of Petroleum Geologists Bulletin*, v. 96, p. 65-85.
106. *⁺Reece, J.S., **Flemings, P.B.**, *Dugan, B., *Long, H., and Germaine, J.T., 2012, Permeability-porosity relationships of shallow mudstones in the Ursa Basin, Northern Deepwater Gulf of Mexico, *Journal of Geophysical Research*, doi: 10.1029/2012JB009438, 2012.
107. *Sawyer, D.E., **Flemings, P.B.**, Buttles, J., and Mohrig, D., 2012, Mudflow transport behavior and deposit morphology: Role of shear stress to yield strength ratio in subaqueous experiments, *Marine Geology*, v. 307–310, p. 28-39, doi: 10.1016/j.margeo.2012.01.009.

108. Thu, M.K., Ito, T., Lin, W., Doan, M.L., Boutt, D., Kawamura, Y., Khong, C.K., McNeill, L., Byrne, T., Saffer, D., Araki, E., Eguchi, N., Sawada, I., **Flemings, P.B.**, Kano, Y., Moore, C., Kinoshita, M., Tobin, H., 2012, Operational Review of the First Wireline In Situ Stress Test in Scientific Ocean Drilling, *Scientific Drilling*, v. 13, p. 35-39, doi: 10.2204/iodp.sd.13.06.2011.
109. *You, Y., **Flemings, P.B.**, and Mohrig, D., 2012, Dynamics of dilative slope failure, *Geology*, v. 40, p. 663-666, doi: 10.1130/g32855.1
110. Day-Stirrat, R.J., Schleicher, A., *Schneider, J., **Flemings, P.B.**, Germaine, J.T., and van der Pluijm, B., 2011, Preferred orientation of phyllosilicates: Effects of composition and stress on resedimented mudstone microfabrics, *Journal of Structural Geology*, v. 33, p. 1347-1358, doi: 10.1016/j.jsg.2011.06.007.
111. *Liu, X.L., and **Flemings, P.B.**, 2011, Capillary effects on hydrate stability in marine sediments, *Journal of Geophysical Research-Solid Earth*, v. 116, doi: 10.1029/2010jb008143.
112. *Long, H., **Flemings, P.B.**, Germaine, J., and Saffer, D., 2011, Consolidation and overpressure near the seafloor in the Ursa Basin, Deepwater Gulf of Mexico, *Earth and Planetary Science Letters*, v. 305, p. 11-20, doi: 10.1016/j.epsl.2011.02.007.
113. Moore, J., Urgeles, R., Conin, M., **Flemings, P.B.**, and Iturrino, G., 2011, Threshold of borehole failure: Breaking in before breaking out, Mississippi fan, Gulf of Mexico, *Geosphere*, v. 7, p. 684-693, doi: 10.1130/ges00613.1.
114. *Schneider, J., **Flemings, P.B.**, Day-Stirrat, R.J., and Germaine, J.T., 2011, Insights into pore-scale controls on mudstone permeability through resedimentation experiments, *Geology*, v. 39, p. 1011-1014, doi: 10.1130/G32475.1.
115. +Song, I., Saffer, D.M., and **Flemings, P.B.**, 2011, Mechanical characterization of slope sediments: Constraints on in situ stress and pore pressure near the tip of the megasplay fault in the Nankai accretionary complex, *Geochemistry Geophysics Geosystems*, v. 12, doi: 10.1029/2011gc003556.
116. Huuse, M., Jackson, C., Rensbergen, P., Davies, R.J., **Flemings, P.B.**, Dixon, R.J., 2010, Subsurface sediment remobilization and fluid flow in sedimentary basins: an overview, *Basin Research*, v. 22, p. 342-360, doi: 10.1111/j.1365-2117.2010.00488.x.
117. Huuse, M., Jackson, C., Rensbergen, P., Davies, R.J., **Flemings, P.B.**, Dixon, R.J., 2010, Subsurface sediment remobilization and fluid flow in sedimentary basins: preface, *Basin Research*, August 2010, V. 22, p. 341, doi:10.1111/j.1365-2117.2010.00487.x.
118. Lin, W., Doan, M., Moore, J.C., McNeill, L., Byrne, T.B., Ito, T., Saffer, D., Conin, M., Kinoshita, M., Sanada, Y., Moe, K.T., Araki, E., Tobin, H., Boutt, D., Kano, Y., Hayman, N.W., **Flemings, P.B.**, Huftile, G.J., Cukur, D., Buret, C., Schleicher, A.M., Efimenko, N., Kawabata, K., Buchs, D.M., Jiang, S., Kameo, K., Horiguchi, K., Wiersberg, T., Kopf, A., Kitada, K. Eguchi, N., Toczko, S., Takahashi, K., Kido, Y., 2010, Present-day principal horizontal stress orientations in the Kumano forearc basin of the southwest Japan subduction zone determined from IODP NanTroSEIZE drilling Site C0009, *Geophysical Research Letters*, v. 37, p. L13303, doi: 10.1029/2010gl043158.
119. *Reilly, M.J., and **Flemings, P.B.**, 2010, Deep pore pressures and seafloor venting in the Auger Basin, Gulf of Mexico, *Basin Research*, v. 22, p. 380-397, doi: 10.1111/j.1365-2117.2010.00481.
120. *Liu, X., and **Flemings, P.B.**, 2009, Dynamic response of oceanic hydrates to sea level drop, *Geophys. Res. Lett.*, v. 36, p. L17308, doi: 10.1029/2009gl039821.
121. *Sawyer, D.E., **Flemings, P.B.**, *Dugan, B., and Germaine, J.T., 2009 Retrogressive failures recorded in mass transport deposits in the Ursa Basin, Northern Gulf of Mexico, *Journal of Geophysical Research*, v. 114, doi: 10.1029/2008JB006159.
122. *Schneider, J., **Flemings, P.B.**, *Dugan, B., *Long, H., and Germaine, J.T., 2009, Overpressure and consolidation near the seafloor of Brazos-Trinity Basin IV, northwest deepwater Gulf of Mexico, *Journal of Geophysical Research-Solid Earth*, v. 114, doi: 10.1029/2008jb005922.
123. **Flemings, P.B.**, et al., 2008a, Erratum to "Pore pressure penetrometers document high overpressure near the seafloor where multiple submarine landslides have occurred on the continental slope, offshore Louisiana, Gulf of Mexico" (vol 269, pg 309, 2008), *Earth and Planetary Science Letters*, v. 274, p. 269-283, doi: 10.1016/j.epsl.2008.06.027.
124. **Flemings, P.B.**, et al., 2008b, Pore pressure penetrometers document high overpressure near the seafloor where multiple submarine landslides have occurred on the continental slope, offshore Louisiana, Gulf of Mexico, *Earth and Planetary Science Letters*, v. 269, p. 309-325, doi: 10.1016/j.epsl.2007.12.005.

125. *Sawyer, A.H., **Flemings, P.B.**, Elsworth, D., and Kinoshita, M., 2008, Response of submarine hydrologic monitoring instruments to formation pressure changes: Theory and application to Nankai advanced CORKs, *J. Geophys. Res.*, v. 113, p. B01102, doi: 10.1029/2007jb005132.
126. *Liu, X.L., and **Flemings, P.B.**, 2007, Dynamic multiphase flow model of hydrate formation in marine sediments, *Journal of Geophysical Research-Solid Earth*, v. 112, doi: 10.1029/2005jb004227.
127. *Long, H., **Flemings, P.B.**, and Germaine, J.T., 2007, Interpreting in situ pressure and hydraulic properties with borehole penetrometers in ocean drilling: DVTTP and Piezoprobe deployments at southern Hydrate Ridge, offshore Oregon, *J. Geophys. Res.*, v. 112, p. B04101, doi: 10.1029/2005jb004165.
128. *Sawyer, D.E., **Flemings, P.B.**, Shipp, C., and Winker, C., 2007, Seismic Geomorphology, Lithology, and Evolution of the Late Pleistocene Mars-Ursa Turbidite Region, Mississippi Canyon Area, Northern Gulf of Mexico, *American Association of Petroleum Geologists Bulletin*, v. 91, p. 215-234.
129. Behrmann, J.H., **Flemings, P.B.**, John, C.M., and Scientists, E., 2006, Rapid Sedimentation, Overpressure and Focused Fluid Flow, Gulf of Mexico continental margin, *Scientific Drilling*, *Scientific Drilling*, v. 3, p. 12-17, doi: 10.2204/iodp.sd.3.03.2006.
130. *Liu, X., and **Flemings, P.B.**, 2006, Passing gas through the hydrate stability zone at southern Hydrate Ridge, offshore Oregon, *Earth and Planetary Science Letters*, v. 241, p. 211-226, doi: 10.1016/j.epsl.2005.10.026.
131. Prather, B.E., Pirmez, C., O'Byrne, C. J., Winker, C., Mallarino, G., Droxler, A.W., **Flemings, P.B.**, Behrmann, J., John, C., Shipboard Scientific Party, 2006, Stratigraphic Evolution of Linked Basins within the Brazos-Trinity Slope System: Western Gulf of Mexico, *Gulf Coast Association of Geological Societies Transactions*, v. 56, p. 699-699.
132. *Enunwa, C.I., Razzano, J.L., III, Ramgulam, A., **Flemings, P.B.**, Ertekin, T., Karpyn, Z.T., 2005, Tahoe Field Case Study—Understanding Reservoir Compartmentalization in a Channel-Levee System: Gulf Coast Association of Geological Societies Transactions, v. 55, p. 152-162.
133. *Seldon, B., and **Flemings, P.B.**, 2005, Reservoir pressure and seafloor venting: Predicting trap integrity in a Gulf of Mexico deepwater turbidite minibasin, *AAPG Bulletin*, v. 89, p. 193-209, doi: 10.1306/09170403122.
134. **Flemings, P.B.**, and *Lupa, J., 2004, Pressure Prediction in the Bullwinkle Basin through Petrophysics and Flow Modeling (Green Canyon 65, Gulf of Mexico), *Marine and Petroleum Geology*, v. 21, p. 1311-1322.
135. Janik, A., Goldberg, D., Moos, D., Sheridan, J., **Flemings, P.B.**, Germaine, J., Tan, B., 2004, Constraints on the strength of the gas hydrate-rich sediments from borehole breakouts—implications for slope stability near Hydrate Ridge on the US continental margin offshore Oregon, *AAPG Bulletin*, v. 88.
136. Trehu, A.M., **Flemings, P.B.**, Bangs, N.L., Chevallier, J., Gràcia, E., Johnson, J.E., Liu, C.S., *Liu, X., Riedel, M., Torres, M.E., 2004, Feeding methane vents and gas hydrate deposits at south Hydrate Ridge, *Geophysical Research Letters*, v. 31, doi: 10.1029/2004gl021286.
137. *Dugan, B., **Flemings, P.B.**, Olgaard, D.L., and Gooch, M.J., 2003, Consolidation, effective stress, and fluid pressure of sediments from ODP Site 1073, US mid-Atlantic continental slope, *Earth and Planetary Science Letters*, v. 215, p. 13-26.
138. **Flemings, P.B.**, *Liu, X.L., and Winters, W.J., 2003, Critical pressure and multiphase flow in Blake Ridge gas hydrates, *Geology*, v. 31, p. 1057-1060.
139. Mikada, H., et al., 2003, Hydrogeological and geothermal studies around Nankai trough (Nankai trough cruise report), , *JAMSTEC J. Deep Sea Res.*, v. 22, p. 125 - 171.
140. *Swanston, A.M., **Flemings, P.B.**, *Comisky, J.T., and *Best, K.D., 2003, Time-lapse imaging at Bullwinkle Field, Green Canyon 65, offshore Gulf of Mexico, *Geophysics*, v. 68, p. 1470-1484, doi: 10.1190/1.1620620.
141. *Yuvancic-Strickland, B., et al., 2003, Integration Of Geologic Model And Reservoir Simulation, Popeye Field, Green Canyon 116, *Transactions of the Gulf Coast Association of Geological Societies (GCAGS)*, v. 53, p. 918-932.
142. *Dugan, B., and **Flemings, P.B.**, 2002, Fluid flow and stability of the US continental slope offshore New Jersey from the Pleistocene to the present, *Geofluids*, v. 2, p. 137-146.
143. **Flemings, P.B.**, *Stump, B.B., ³Finkbeiner, T., and Zoback, M., 2002, Flow focusing in overpressured sandstones: Theory, observations, and applications, *American Journal of Science*, v. 302, p. 827-855, doi: 10.2475/ajs.302.10.827.

144. *Liu, X., and **Flemings, P.B.**, 2002, Stress-limited gas column height in the gas hydrate system of Blake Ridge, *Proceeding of the Fourth International Conference on Gas Hydrate*, v. 2, p. 807-812.
145. *Lupa, J., **Flemings, P.B.**, and Tennant, S., 2002, Pressure and trap integrity in the deepwater Gulf of Mexico, *The Leading Edge*, v. 21, p. 184-187.
146. *Cookman, J.L., and **Flemings, P.B.**, 2001, STORMSED1.0: hydrodynamics and sediment transport in a 2-D, steady-state, wind- and wave-driven coastal circulation model, *Computers & Geosciences*, v. 27, p. 647-674.
147. ³Finkbeiner, T., Zoback, M., *Stump, B.B., and **Flemings, P.B.**, 2001, Stress, Pore Pressure, and Dynamically Constrained Hydrocarbon Columns in the South Eugene Island 330 Field, Gulf of Mexico, *American Association of Petroleum Geologists Bulletin*, v. 85, p. 1007-1031.
148. *Burkhart, T., *Hoover, A.R., and **Flemings, P.B.**, 2000, Time-lapse (4-D) seismic monitoring of primary production of turbidite reservoirs at South Timbalier Block 295, offshore Louisiana, Gulf of Mexico, *Geophysics*, v. 65, p. 351-367.
149. *Dugan, B., and **Flemings, P.B.**, 2000a, The New Jersey margin: Compaction and fluid flow, *Journal of Geochemical Exploration*, v. 69, p. 477-481.
150. *Dugan, B., and **Flemings, P.B.**, 2000b, Overpressure and fluid flow in the New Jersey Continental Slope: implications for slope failure and cold seeps, *Science*, v. 289, p. 288-291.
151. *Metzger, J.M., et al., 2000, Late Miocene to Pleistocene sequences at the New Jersey outer continental shelf (ODP Leg 174A, Sites 1071 and 1072), *Sedimentary Geology*, v. 134, p. 149-180.
152. *Stump, B.B., and **Flemings, P.B.**, 2000, Overpressure and fluid flow in dipping structures of the offshore Gulf of Mexico (EI 330 field), *Journal of Geochemical Exploration*, v. 69, p. 23-28.
153. *Gordon, D.S., and **Flemings, P.B.**, 1999, Two-dimensional Modeling of Groundwater Flow in an Evolving Deltaic Environment, *NES/SEPM Special Publication*, v. 62, p. 301-312.
154. *Hoover, A.R., *Burkhart, T., and **Flemings, P.B.**, 1999, Reservoir and production analysis of the K40 sand, South Timbalier 295, offshore Louisiana, with comparison to time-lapse (4-D) seismic results, *AAPG Bulletin*, v. 83, p. 1624-1641.
155. Austin, J.A., Christie-Blick, N., Malone, M.J., Berne, S., Borre, M., Claypool, G., Damuth, J., Delius, H., Dickens, G., **Flemings, P.B.**, 1998, Continuing the New Jersey Mid-Atlantic sea-level transect: Covering leg 174A of the cruises of the drilling vessel *Joides Resolution*, Halifax, Nova Scotia, to New York, New York, sites 1071-1073, 15 June-19 July 1997, *Proceedings of the Ocean Drilling Program. Initial reports*, v. 174, p. 1-324.
156. *Gordon, D.S., and **Flemings, P.B.**, 1998, Generation of overpressure and compaction-driven fluid flow in a Plio-Pleistocene growth-faulted basin, Eugene Island 330, offshore Louisiana, *Basin Research*, v. 10, p. 177-196, doi: 10.1046/j.1365-2117.1998.00052.
157. Poulsen, C.J., **Flemings, P.B.**, Robinson, R.A.J., and *Metzger, J.N., 1998, Three-dimensional stratigraphic evolution of the miocene Baltimore Canyon region: Implications for eustatic interpretations and the systems tract model, *Geological Society of America Bulletin*, v. 110, p. 1105-1122.
158. Rowan, M.G., ⁺Hart, B.S., Nelson, S., **Flemings, P.B.**, and Trudgill, B.D., 1998, Three-dimensional geometry and evolution of a salt-related growth-fault array: Eugene Island 330 field, offshore Louisiana, Gulf of Mexico, *Marine and Petroleum Geology*, v. 15, p. 309-328.
159. Deshpande, A., **Flemings, P.B.**, and Huang, J., 1997, Quantifying lateral heterogeneities in fluvio-deltaic sediments using three-dimensional reflection seismic data: Offshore Gulf of Mexico, *Journal of Geophysical Research-Solid Earth*, v. 102, p. 15,385-15,401.
160. ⁺Hart, B.S., Sibley, D.M., and **Flemings, P.B.**, 1997, Seismic stratigraphy, facies architecture, and reservoir character of a Pleistocene shelf-margin delta complex, Eugene Island Block 330 field, offshore Louisiana, *AAPG Bulletin*, v. 81, p. 380-397.
161. **Flemings, P.B.**, and Grotzinger, J.P., 1996, STRATA: Freeware for Solving Classic Stratigraphic Problems, *GSA Today*, v. 6, p. 1-7.
162. ⁺Hart, B.S., Sibley, D.M., and **Flemings, P.B.**, 1996, Reservoir compartmentalization by depositional features in a Pleistocene shelf margin (lowstand) delta complex, Eugene Island 330 Field, Louisiana Offshore, in Weimer, P., Davis, T., and Louisiana, F., eds., *AAPG Studies in Geology/SEG Geophysical Development Series Volume 42/5*, p. 21-26.

163. Jordan, T.E., et al., 1996, Development of the Miocene Manantiales foreland basin, Principal Cordillera, San Juan, Argentina, *Revista Geologica De Chile*, v. 23, p. 43-79.
164. Rowan, M.G., Villamil, T., **Flemings, P.B.**, and Weimer, P., 1996, Use of cross-section restoration to determine paleobathymetry and sea-floor paleotopography in the Gulf of Mexico basin, *Geology*, v. 24, p. 299-302.
165. ³Alexander, L.L., and **Flemings, P.B.**, 1995, Geologic Evolution of a Pliocene-Pleistocene Salt-Withdrawal Minibasin - Eugene-Island Block-330, Offshore Louisiana, *AAPG Bulletin*, v. 79, p. 1737-1756.
166. ⁺Hart, B.S., **Flemings, P.B.**, and ^{*}Deshpande, A., 1995, Porosity and Pressure - Role of Compaction Disequilibrium in the Development of Geopressures in a Gulf-Coast Pleistocene Basin, *Geology*, v. 23, p. 45-48.
167. Anderson, R.N., et al., 1994, In Situ Properties of a Major Gulf of Mexico Growth Fault: Implications for Behavior as a Hydrocarbon Migration Pathway, *Oil & Gas Journal*, v. 92, p. 97-104.
168. Rothman, D.H., Grotzinger, J.P., and **Flemings, P.B.**, 1994, Scaling in Turbidite Deposition - Reply, *Journal of Sedimentary Research Section a-Sedimentary Petrology and Processes*, v. 64, p. 934-934.
169. Rowan, M.G., Weimer, P., and **Flemings, P.B.**, 1994, Three-dimensional geometry and evolution of a composite, multi-level salt system, western Eugene Island, offshore Louisiana, *Transactions of the Gulf Coast Associations of Geological Societies*, v. 44, p. 641-648.
170. Greenlee, S.M., Devlin, W.J., Miller, K.G., Mountain, G.S., and **Flemings, P.B.**, 1992, Integrated Sequence Stratigraphy of Neogene Deposits, New-Jersey Continental-Shelf and Slope - Comparison with the Exxon Model, *Geological Society of America Bulletin*, v. 104, p. 1403-1411.
171. **Flemings, P.B.**, and Nelson, S.N., 1991, Paleogeography of the Paleocene Wind River Basin, *The Mountain Geologist*, v. 28, p. 37-52.
172. Jordan, T.E., and **Flemings, P.B.**, 1991, Large-Scale Stratigraphic Architecture, Eustatic Variation, and Unsteady Tectonism - a Theoretical Evaluation, *Journal of Geophysical Research-Solid Earth and Planets*, v. 96, p. 6681-6699.
173. **Flemings, P.B.**, and Jordan, T.E., 1990, Stratigraphic Modeling of Foreland Basins - Interpreting Thrust Deformation and Lithosphere Rheology, *Geology*, v. 18, p. 430-434.
174. Jordan, T.E., and **Flemings, P.B.**, 1990, Analisis Teorico de la Estratigrafia de Cuencas de Antepais Durante Deformaciones Episodicas, *Tercera Reunion Argentina de Sedimentologia*.
175. **Flemings, P.B.**, and Jordan, T.E., 1989, A Synthetic Stratigraphic Model of Foreland Basin Development, *Journal of Geophysical Research-Solid Earth and Planets*, v. 94, p. 3851-3866.

Invited Lectures

1. George Mason University, Deepwater Methane Hydrates and the Carbon Cycle, invited lecture, Sept. 2025
2. Offshore Technology Conference (OTC), The Geomechanical Behavior of Hydrate Reservoirs: Implications for Drilling and Production, invited lecture, May 2025
3. Texas A&M, College Station, Methane Hydrates and Microbial Methane, invited lecture, Nov 2024
4. University of Rochester, Methane Hydrates and Microbial Methane, invited lecture, Feb. 2024
5. Cornell University, Methane Hydrates and Microbial Methane, invited lecture, June 2023
6. Geopressure 2021: Managing uncertainty in geopressure by integrating science and engineering,
7. EAGE Workshop on Pore Pressure Prediction, Dec. 2020
8. BEG Lecture, The origins of overpressure at the Macondo Well, Oct 2020
9. Ice that burns, University of Texas Libraries Research & Pizza presentation. April 2018
10. Recent results pressure coring hydrate-bearing sands in the deepwater Gulf of Mexico: Gordon Research Conference on Natural Gas Hydrate Systems. Galveston, Tx., Feb. 2018
11. 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
12. 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
13. ICGH, GOM2: Prospecting, drilling and sampling coarse-grained hydrate reservoirs in the deepwater Gulf of Mexico. Denver, CO, June 2017
14. Woods Hole Oceanographic Institute, Exploring the Methane Hydrate GeoSystem from Pore to Basin, July 26, 2016

15. Sandia National Laboratories, Exploring the Methane Hydrate GeoSystem from Pore to Basin, 2016
16. Osher Lifelong Learning Institute at UT Austin, The Methane Hydrate GeoSystem: Geology, Climate, & Energy, April 19, 2016
17. Woods Hole Oceanographic Institute, The Methane Hydrate and Free Gas GeoSystem, June 29, 2015
18. Penn State University, The Methane Hydrate and Free Gas GeoSystem: Geology, Climate, & Energy, April 6, 2015
19. Jackson School of Geosciences Tech Session: The Methane Hydrate and Free Gas GeoSystem: Geology, Climate, & Energy, January 29, 2015
20. 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
21. 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
22. Gas Venting Through the Hydrate Stability Zone: observation and theory, MARUM – Center for Marine Environmental Sciences, University of Bremen, June 2012, Bremen, Germany
23. Making Mudstones: insights into material behavior through resedimentation experiments, Invited Speaker, Abstract MR23D-04, 2012 Fall Meeting, AGU.
24. Offshore Active Processes and Hazards, RIE Lehigh conference, October 2011, Bethlehem, PA
25. Geomechanical modeling of salt-sediment interaction in evolving sedimentary basins, Abstract T42A-04, 2011 Fall Meeting, AGU.
26. Society of Industrial and Applied Mathematics, 'Capillary behavior of methane hydrates', Long Beach, CA, March 2011.
27. 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.
28. California Institute of Technology, 'Pore Pressure, shallow to deep,' November 2010.
29. Dept. of Geophysics, Stanford University, 'Pore pressure, shallow to deep'. November 2010
30. Bureau of Economic Geology, Jackson School of Geosciences, 'Pore pressure, trap integrity, and seafloor venting,' April 2010.
31. SPE 2008 Forum on Reservoir Geomechanics, Colorado Springs, Co, June 2008 (invited speaker)
32. Keynote Speaker/ Co-Convener, 'Subsurface sediment mobilization and fluid flow', Geological Society, London.
33. European Association of Geoscientists & Engineers Research Workshop, 'Compacting and Stressing Out Shales: from Geological to Production Timescales', Berlin, Germany (invited speaker)
34. Dept. of Earth and Planetary Sciences, University of California, Santa Cruz. April 2008 (JOI Distinguished Lecture)
35. Dept. of Geosciences, Indiana University of Pennsylvania, Indiana, PA. March 2008 (JOI Distinguished Lecture)
36. Geology Dept. University of California, Davis. January 2008 (JOI Distinguished Lecture)
37. Geology Dept. Edinboro University, Edinboro, PA. November 2007 (JOI Distinguished Lecture)
38. Dept. Petroleum Engineering and Dept. of Geosciences, Louisiana State University, November 2007 (JOI Distinguished Lecture)
39. Earth Sciences Dept., University of Maine, Orono, ME. October 2007 (JOI Distinguished Lecture)
40. Geology Dept., Middlebury College, Middlebury, Vt. October 2007 (JOI Distinguished Lecture)
41. Earth Sciences Dept., University of Maine, Orono, ME. October 2007 (JOI Distinguished Lecture)
42. Chevron 2007 Hydrocarbon Charge Evaluation Workshop, Houston, Texas, April 2007 (invited speaker)
43. University of Texas, February 2007 (invited speaker, 2 lectures)
44. Department of Geosciences, Penn State University, Spring 2007 (Geodynamics Seminar)
45. British Petroleum, October 2006, London, (Invited Speaker)
46. Invited Speaker, Kavli Frontiers of Science 12th German-American Symposium, Potsdam Germany (2006)
47. 12th German-American Frontiers of Science Symposium, Potsdam, Germany, June 2006 (invited speaker)

48. Dept. of Earth Sciences, Dartmouth College, Hanover, NH April 2006 (AAPG Distinguished Lecture)
49. Dept. of Geology, University of Toronto, Toronto, Canada, April 2006 (AAPG Distinguished Lecture)
50. College of Oceanic and Atmospheric Sciences, Marine Geology, and Geophysics Department, Oregon State University, Corvallis, OR April 2006 (AAPG Distinguished Lecture)
51. Dept. of Geological Sciences, University of Oregon, Eugene, OR, April 2006 (AAPG Distinguished Lecture)
52. Dept. of Geology and Geophysics, University of Calgary, Calgary, Canada, April 2006 (AAPG Distinguished Lecture)
53. Department of Geology and Geological Engineering, University of North Dakota, Grand Forks, ND, April 2006 (AAPG Distinguished Lecture)
54. North Dakota Geological Society, Bismarck, ND, March 2006 (AAPG Distinguished Lecture)
55. Montana Geological Society, Billings, MT, March 2006 (AAPG Distinguished Lecture)
56. Department of Geology and Geophysics, University of Wyoming, Laramie, WY, March 2006 (AAPG Distinguished Lecture)
57. Northern California Geological Society, San Ramon, CA, March 2006 (AAPG Distinguished Lecture)
58. Department of Geology and Environmental Sciences, Lafayette College, Feb. 2006 (AAPG Distinguished Lecture)
59. Department of Geosciences, University of South Carolina, Columbia, S.C., October 2004 (departmental seminar)
60. Department of Geosciences, Texas A&M, College Station, TX, October 2003 (departmental seminar)
61. Department of Earth Sciences, Rice University, Houston, TX, April 2003 (departmental seminar)
62. Department of Geosciences, Penn State University, April 2003 (Geosciences Colloquium speaker)
63. JOIDES Pollution Prevention and Safety Panel Meeting, Barcelona, Spain, June 2002 (invited seminar)
64. Department of Civil and Environmental Engineering, MIT, Cambridge, MA, April 2002 (departmental seminar)
65. University of Rhode Island Graduate School of Oceanography, Narragansett, RI, March 2002 (Marine Geology & Geophysics Seminar)
66. Woods Hole Oceanographic Institution, Woods Hole, MA, March 2002 (Geodynamics seminar)
67. University of Edinburgh, Edinburgh, United Kingdom, May 2001 (invited speaker)
68. Pittsburgh Geological Society, Pittsburgh, PA, November 2000 (invited speaker)
69. Cornell University, October 1998 (invited speaker)
70. New Orleans Geologic Society, New Orleans, LA, October 1998 (invited speaker)
71. Department of Geosciences, Penn State University, February 1997 (Geodynamics Seminar)
72. Department of Geosciences, Penn State University, September 1996
73. Department of Geography and Environmental Engineering, Johns Hopkins University, November 15, 1995 (departmental seminar)
74. Petroleum & Natural Gas 590 Seminar, Penn State University, November 1995 (invited speaker)
75. Society of Petroleum Engineers, Penn State University, February 1995, (invited guest speaker)
76. Department of Geosciences, Penn State University, October 1994 (Hydroscience Brown Bag Seminar)
77. Department of Earth and Planetary Sciences, University of New Mexico, September 1994, (presented two department-wide seminars)
78. Crosby Distinguished Lecturer, M.I.T., January 1994 (presented departmental seminar on geopressure)

Book Chapters

1. *Bohn, C.W., **Flemings, P.B.**, and Slingerland, R.L., 2012, Accommodation Change During Bypass Across a Late-Stage Fan in the Shallow Auger Basin, *in* Prather, B.E., Deptuck, M.E., Mohrig, D., Hoorn, B.V., and Wynn, R.B., eds., Application of the Principles of Seismic Geomorphology to Continental-Slope and Base-of-Slope Systems: Case Studies from Seafloor and Near-Seafloor Analogues, Volume 99, SEPM (Society for Sedimentary Geology), p. 225-242, doi: 10.2110/pec.12.99.0225.
2. Urgeles, R., **Flemings, P.B.**, et al., 2010, History of Pore Pressure Build Up and Slope Instability in Mud-Dominated Sediments of Ursa Basin, Gulf of Mexico Continental Slope, *in* Mosher, D.C., Moscardelli, L., Shipp, R.C., Chaytor, J.D., Baxter, C.D.P., Lee, H.J., and Urgeles, R., eds., Submarine Mass Movements and Their Consequences, Volume 28: Advances in Natural and Technological Hazards Research: Dordrecht (The Netherlands), Springer, p. 179-190, doi: 10.1007/978-90-481-3071-9_15.

3. *Dugan, B., and **Flemings, P.B.**, 2003, Measuring pore pressure in marine sediments with penetrometers: comparison of the piezoprobe and DVTP-P tools in ODP Leg 204, *in* Thompson, B.J., ed., Research Papers of the Link Foundation Fellows, Volume 3: Rochester, New York, The University of Rochester Press in Association with The Link Foundation p. 179-199. Research Papers of the Link Foundation Fellows
4. *Stump, B.B., **Flemings, P.B.**, Feinbeiner, T., and Zoback, M.D., 1998, Pressure differences between overpressured sands and bounding shales of the Eugene Island 330 Field (Offshore Louisiana, USA) with implications for fluid flow induced by sediment loading, *in* Mitchell, A., and Grauls, D., eds., Overpressures in Petroleum Exploration, Memoire 22, Elf EP Editions, p. 83-92.
5. **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* Thomas A. Mazza, C., and Richard C. Johnson, C., eds., Stratigraphic Analysis Utilizing Advanced Geophysical, Wireline and Borehole Technology for Petroleum Exploration and Production: 17th Annual, Volume 17, Society of Economic Paleontologists and Mineralogists, p. 99-109, doi: 10.5724/gcs.96.17.0099.
6. Jordan, T.E., and **Flemings, P.B.**, 1990, From Geodynamic Models to Basin Fill -- A Stratigraphic Perspective, *in* Cross, T., ed., Quantitative Dynamic Stratigraphy: New Jersey, Prentice Hall, Inc., p. 149-163.

Non-refereed Publications

1. **Flemings, P.B.**, and the IODP Expedition 308 Scientific Party, 2005, Expedition information: Expedition 308 Gulf of Mexico hydrogeology, JOI News, v. Fall/Winter 2005, p. 8-9.
2. **Flemings, P.B.**, Huffman, A.R., Bruce, R., Benoit, J., and Mayne, P., 2000, Geofluids of Passive Margins: At the Interface of the Practical and the Fundamental, JOI/USSAC Newsletter v. 13, p. 10-11.
3. Bishop, B., Wolfe, J., and **Flemings, P.B.**, 1994, Landmark Workstation on Offshore Rig Guides Drilling Decisions, UserNet: The Technical Newsletter for Landmark Users, p. 1-5.
4. Billeaud, L.B., Anderson, R.N., **Flemings, P.B.**, and Austin, J., 1994, Searching for Evidence of Active Gas and Oil Migration within a Growth Fault Zone in the Gulf of Mexico, Petroleum Engineer International, p. 17-22.

Conference Papers

1. Lopez-Campos, G., Nikolinakou, M.A., **Flemings, P.B.**, Saffer, D.M. Impact of Spontaneous Generation of Splay Faults on Stress Heterogeneity in Accreting Sediments. *ARMA US Rock Mechanics/Geomechanics Symposium*. Santa Fe, NM. D041S052R005, June 2025.
2. Cardona, A., Bhandari, A.R., **Flemings, P.B.** Geomechanical properties of hydrate-bearing sediments from the Gulf of Mexico-viscoplastic behavior. *ARMA US Rock Mechanics/Geomechanics Symposium*. D041A044R002. Golden, CO. ARMA-2024-0779. June 2024.
3. Nikolinakou, M.A., **Flemings, P.B.**, Heidari, M., Wang, X., Johri, M. Pressure and stress prediction using seismic velocities, 3D geomechanical models and the full stress tensor: Mad Dog field, deepwater GoM. *ARMA US Rock Mechanics/Geomechanics Symposium*. D021S1S009R001. Golden, CO. ARMA-2024-0694. June 2024.
4. Lopez-Campos, G., Nikolinakou, M.A., **Flemings, P.B.**, Saffer, D.M. Stress Distribution in Accreting Sediments: A Geomechanical Study of Upper-Plate Faults. *58th U.S. Rock Mechanics/Geomechanics Symposium*. Golden, CO. ARMA-2024-0708. June 2024.
5. Bhandari, A.R., Ewy, R.T., **Flemings, P.B.**, Germaine, J.T. Comparing Compression and Shear Behavior of Intact and Resedimented Mudrock to Illuminate the Rheology of Mudrocks. *ARMA US Rock Mechanics/Geomechanics Symposium*. Golden, CO. ARMA-2024-1042. June 2024.
6. Mills, T., **Flemings, P.B.**, Nole, M., Germaine, J., Garrett, R., Fukuyama, D., Bigler, L.A., Farquharson, L.M., Hasson, N., Smallwood, C., Sanchez, M., Schambach, J., Kolker, S., Ricken, J. 2023. Flow and Index Properties of Permafrost Cores from Fairbanks, Alaska and Synthetic Permafrost Specimens. *AGU 2023 Fall Meeting*, San Francisco, CA. December 2023.
7. Nikolinakou, M. A., Dosser, X. W., **Flemings, P.B.**, Johri, M., 2023, April 24. 3D Mad Dog Pressure and Stress Prediction Coupling Seismic Velocities, Pressure, and Stress Measurements. *Offshore Technology Conference*, Houston, Texas, USA, May 2023.
8. You, K., Phillips, S., **Flemings, P.B.**, Colwell, F.S., Mikucki, J. 2022. Coarse-Grained Sediments are Potential Microbial Methane Factories in Marine Sediments. *AGU 2022 Fall Meeting*.
9. Smith, L., Savage, A., **Flemings, P. B.**, Colwell, F. S., Mikucki, J., & You, K., May 16, 2022, Too Much Pressure: Effect of Sediment Compaction on Microbial Viability, 2022 *Astrobiology Science Conference*. AGU. Atlanta, GA.

10. Portnov, A., **Flemings, P.B.**, Meazell, K., Hudec, M., Dunlap, D. 2022, August. Rapid sedimentation reduces the thermal gradient, increases pore pressure, and dramatically deepens the base of the gas hydrate stability zone in rapidly formed sedimentary basins. *SEG/AAPG International Meeting for Applied Geoscience & Energy*. Houston, TX.
11. Nole, M., Frederick, J., Smallwood, C., Fukuyama, D., Farquharson, L.M., Nicolsky, D., **Flemings, P.B.**, 2022. Development of a Framework for Coupled Thermal, Hydrologic, and Biogeochemical Modeling to Predict Permafrost Methane Emissions. *AGU 2022 Fall Meeting*.
12. Nikolinakou, M.A., Heidari, M., Hudec, M.R., **Flemings, P.B.**, June 2022. Sediment Stress in an Extensional Basin with Pre-Existing Fault and Salt Roller. *56th US Rock Mechanics/Geomechanics Symposium*. Paper Number: ARMA-2022-0547. Santa Fe, New Mexico.
13. Murphy, Z., **Flemings, P.B.**, DiCarlo, D.A., You, K. 2022. Simultaneous CH₄ Production and CO₂ Storage in Hydrate Reservoirs. *AGU 2022 Fall Meeting*.
14. **Flemings, P.B.**, Fang, Y., You, J., Cardona, A. 2022. The Water Relative Permeability Behavior of Hydrate-bearing Sediment. *AGU 2022 Fall Meeting*.
15. Cardona, A., Bhandari, A.R., **Flemings, P.B.**, 2022. Creep and stress relaxation behavior of hydrate-bearing sediments: implications for stresses during production and geological sedimentation. *AGU 2022 Fall Meeting*.
16. Ramiro-Ramirez, S., **Flemings, P. B.**, Bhandari, A.R., 2021, Sept. 21-23. Steady-State Liquid Permeability Measurements in Samples from the Bakken Formation, Williston Basin, USA., 2021 *SPE Annual Technical Conference and Exhibition*, Dubai, UAE, Sept. 21-23
17. Heidari, M., Nikolinakou, M. A., **Flemings, P. B.**, & Hudec, M. R., 2021, June 18. Prediction of Pore Pressure and the Full Stress Tensor from Seismic Velocity Around a 3D Salt Dome in the Gulf of Mexico. *55th U.S. Rock Mechanics/Geomechanics Symposium*, Virtual, 18-25 June 2021.
18. Nikolinakou, M. A., Heidari, M., **Flemings, P. B.**, & Hudec, M. R., 2019, August 28. Geomechanical Modeling of Sediment Stress-Level Dependency with Application to a Salt System. *53rd U.S. Rock Mechanics Association/Geomechanics Symposium*, New York City, NY, 23-26 June 2019.
19. Heidari, M., Nikolinakou, M. A., **Flemings, P. B.**, & Hudec, M. R., 2019, August 28. Impacts of Stress-Level Dependency of Mudrock Mechanical Behavior on the Pore Pressure and Structural Style of Critical Tapers. *53rd U.S. Rock Mechanics Association/Geomechanics Symposium*, New York City, NY, 23-26 June 2019.
20. Nikolinakou, M.A., Heidari, M., Hudec, M.R., **Flemings, P.B.**, 2018, August 21. Geomechanical Modeling of Stress and Deformation Associated With Salt-Sheet Advance. *American Rock Mechanics Association*.
21. Heidari, M., Nikolinakou, M.A., **Flemings, P.B.**, Hudec, M., 2018. Enhancing Modified Cam-Clay model for large stress range. ARMA 18-0790, *52nd U.S. Rock Mechanics/Geomechanics Symposium*, Seattle, WA, 17-20 June 2018.
22. **Flemings, P.B.**, Boswell, R., Collett, T. Cook, A., Divins, D., Frye, M., Guerin, G., Goldberg, D., Malinverno, A., Meazell, K., Morisson, J., Pettigrew, T., Philips, S., Santra, M., Sawyer, D.E., Shedd, W., Thomas, C. You, K., 2017, GOM2: Prospecting, Drilling and Sampling Coarse-Grained Hydrate Reservoirs in the Deepwater Gulf of Mexico, *9th International Conference on Gas Hydrates*. Denver.
23. Nikolinakou, M.A., Heidari, M., **Flemings, P.B.**, 2017, Pore-Pressure Prediction Beneath Salt Sheets, Presented at *51st US Rock Mechanics / Geomechanics Symposium*: San Francisco, CA, 25-27 June.
24. Nikolinakou, M.A., Heidari, M., **Flemings, P.B.**, 2016, Pore-pressure prediction based on seismic velocities coupled with geomechanical modeling, *50th US Rock Mechanics/Geomechanics Symposium*, Houston, Texas, USA, 26-29 June.
25. Meyer, D.W., You, K., Phillips, S., **Flemings, P.B.**, DiCarlo, D., and Kneafsey, T., 2016, Methane hydrate formation in a saturated, coarse-grained sample through the induction of a propagating gas front, *Gordon Research Conference*, Feb 28 – Mar 4, Galveston, TX, United States.
26. Meazell, K., **Flemings, P.B.**, 2016, New insights into hydrate-bearing clastic sediments in the Terrebonne basin, northern Gulf of Mexico, *Gordon Research Conference*, Feb 28 – Mar 4, Galveston, TX, United States.
27. Heidari, M., Nikolinakou M.A., Hudec, M. R., and **Flemings, P.B.**, 2016, Geomechanical impacts of a welding salt layer on adjacent sediments, *50th US Rock Mechanics/Geomechanics Symposium*, Houston, Texas, USA, 26-29 June.

28. Gao, B., **Flemings, P.B.**, Saffer, D., Nikolinakou, M.A., Heidari, M., 2016, Mechanics of Fold-and-Thrust Belt Systems Based on Geomechanical Modeling, *Subduction Zone Observatory Workshop*, Boise, Idaho, 29 Sept – 1 Oct.
29. Gao, B., **Flemings, P.B.**, Nikolinakou, M.A., 2016, Stress and porosity in fold-and-thrust belt systems, *50th US Rock Mechanics/Geomechanics Symposium*, Houston, Texas, USA, 26-29 June.
30. *Meyer, D., **Flemings, P.B.**, 2014, Thermodynamic State of Hydrate-Bearing Sediments on Continental Margins around the World, Presented at *2014 Offshore Technology Conference*, Houston, TX, 5-8 May.
31. *Meyer, D.W. and **Flemings, P.B.**, 2014, Thermodynamic Stability of Gas Hydrates in the Krishna-Godavari Basin Inferred From Well Log Analysis, *2014 Offshore Technology Conference*: Houston, TX, U.S.A., p. 9, May 5-8.
32. [†]Nikolinakou, M.A., and **Flemings, P.B.**, 2013, Pore Pressure and Stress around Dipping Structures, in Hellmich, C., Pichler, B., and Adam, D., eds., *Poromechanics V: Proceedings of the Fifth Biot Conference on Poromechanics*: Vienna, Austria, American Society of Civil Engineers, p. 452-461, July 10-12, 2013, doi: doi:10.1061/9780784412992.054.
33. [†]Nikolinakou, M.A., Merrell, M., Luo, G., **Flemings, P.B.**, and Hudec, M.R., 2013, Geomechanical modeling of the Mad Dog salt, Gulf of Mexico, *47th US Rock Mechanics / Geomechanics Symposium*: San Francisco, CA, 23-26 June.
34. [†]Nikolinakou, M.A., and **Flemings, P.B.**, 2012, Stress changes at the crest of dipping structures, *46th US Rock Mechanics/Geomechanics Symposium*: Chicago, Paper # 254, June 24-27.
35. [†]Luo, G., [†]Nikolinakou, M.A., Hudec, M., and **Flemings, P.B.**, 2012, Near-salt stress and wellbore stability: A finite-element study and its application, *46th U.S. Rock Mechanics/Geomechanics Symposium*: Chicago, Paper # 309, June 24-27.
36. [†]Nikolinakou, M.A., [†]Luo, G., Hudec, M.R., and **Flemings, P.B.**, 2011 Geomechanical modeling of stresses and pore pressures in mudstones adjacent to salt bodies, *Proceedings of the 45th US Rock Mechanics/Geomechanics Symposium*: San Francisco, CA, p. 8, June 26 - 29.
37. *Smith, A.J., **Flemings, P.B.**, and Fulton, P.M., 2011, Observations and Models of Heat and Salt Generation in Deepwater Gulf of Mexico Vents, *Proceedings of the 7th International Conference on Gas Hydrates*: Edinburgh, Scotland, United Kingdom, p. 639 - 651, July 17 - 21.
38. Foroozan, R., Elsworth, D., **Flemings, P.B.**, Bilotti, F., and Muhuri, S., 2010, Controls of Permeability On the Mechanical Evolution of Shortening Basins, *44th US Rock Mechanics Symposium and 5th US-Canada Rock Mechanics Symposium*: Salt Lake City, Utah, June 27 - 30, 2010.
39. Urgeles, R., et al., 2009, History of Pore Pressure Build Up and Slope Instability in Mud-Dominated Sediments of Ursa Basin, Gulf of Mexico Continental Slope, presented at: *4th Int. Symposium on Submarine Mass Movements and Their Consequences*, Abstracts Book, pp. 26, Austin (TX), USA.
40. *Dugan, B., et al., 2007, Physical Properties of Mass Transport Complexes in the Ursa Region, Northern Gulf of Mexico (IODP Expedition 308) Determined from Log, Core, and Seismic Data, *2007 Offshore Technology Conference*, Volume OTC 17597: Houston, TX, April 30-May 3, 2007, OTC Paper #18704.
41. Iturrino, G.J., *Dugan, B.E., *Sawyer, D., **Flemings, P.B.**, and Moore, J.C., 2007, Interpretation of Downhole Measurements, Deformation Analyses, and Lithologic Characterization in the Ursa Basin, Gulf of Mexico, *Offshore Technology Conference*: Houston, Texas, 30 April-3 May 2007, 10.4043/19097-MS.
42. *Long, H., et al., 2007, In Situ Pore Pressure at IODP Site U1324, Ursa Basin, Gulf of Mexico, *Proceedings of the Offshore Technology Conference*: Houston, Texas, April 30-May 3, 2007, OTC Paper #18772.
43. Moore, J.C., Iturrino, G.J., **Flemings, P.B.**, Hull, I., and Gay, A., 2007, Fluid Migration and State of Stress Above the Blue Unit, Ursa Basin: Relationship to the Geometry of Injectites, *Offshore Technology Conference* Houston, Texas, 30 April-3 May 2007, DOI: 10.4043/18812-MS.
44. *Ramgulam, A., Ertekin, T., and **Flemings, P.B.**, 2007, Utilization of Artificial Neural Networks in the Optimization of History Matching, , *Latin American & Caribbean Petroleum Engineering Conference*: Buenos Aires, Argentina, Society of Petroleum Engineers April 15-18, 2007, 10.2118/107468-MS.
45. *Sawyer, D.E., **Flemings, P.B.**, *Dugan, B., and 308, S.S.I.E., 2007, Lateral Variations in Core, Log, and Seismic Attributes of a Mass Transport Complex in the Ursa Region, IODP Expedition 308, Northern Gulf of Mexico, *Offshore Technology Conference* Houston, Texas, 30 April-3 May 2007, DOI: 10.4043/19098-MS.

46. **Flemings, P.B.**, et al., 2006, Measuring Temperature and Pressure with the Temperature Two Pressure (T2P) Probe in the Ursa Basin, Gulf of Mexico: Development of a New Pressure and Temperature Probe for the IODP, *Proceedings of the Offshore Technology Conference*: Houston, Texas, May 1-4, 2006, OTC Paper #17957.
47. Elsworth, D., ³Lee, D.S., *Long, H., and **Flemings, P.B.**, 2003, Penetration-Induced Pore Pressure Magnitudes – Methods to Determine Transport Parameters from Terrestrial and Marine Penetrometer Testing, *Proceedings of the International Conference on T-H-M-C Processes in Geosystems: Fundamentals, Modeling, Experiments and Applications*: Stockholm, Sweden, October 13-15, 2003.
48. **Flemings, P.B.**, *Comisky, J.T., *Liu, X., and *Lupa, J., 2001, Stress-Controlled Porosity in Overpressured Sands at Bullwinkle (GC65), Deepwater Gulf of Mexico, *Proceedings of the Offshore Technology Conference*: Houston, Texas, 30 April-3 May 2001, DOI: 10.4043/13103-MS.
49. ³Finkbeiner, T., Zoback, M.D., *Stump, B.B., and **Flemings, P.B.**, 1998, In situ stress, pore pressure and hydrocarbon migration the South Eugene Island field, Gulf of Mexico, in Mitchell, A., and Grauls, D., eds., *Overpressures in petroleum exploration workshop proceedings*: Pau, France, p. 103-110, Memoire 22, Elf EP-Editions.
50. **Flemings, P.B.**, ³Siahaan, V., Hicks, P.J., and *Stump, B.B., 1998, Secondary migration via fracture permeability in shales: illuminating the relationship between pressure and column height, in Mitchell, A., and Grauls, D., eds., *Overpressures in petroleum exploration workshop proceedings*: Pau, France, p. 111-116, Memoire 22, Elf EP-Editions.
51. *Stump, B.B., **Flemings, P.B.**, Ashbaugh, J., and ³⁰Bennett, M.H., 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 Mitchell, A., and Grauls, D., ed., *Overpressures in petroleum exploration workshop proceedings*: Pau, France, p. 83-92, Memoire 22, Elf EP-Editions.
52. Anderson, R.N., et al., 1997, 4D time-lapse monitoring in the South Timbalier 295 Field, Gulf of Mexico, *Offshore Technology Conference*: Houston, Texas, 5 May-8 May 1997, DOI: 10.4043/8312-MS.

Reports

1. **Flemings, P.B.**, Phillips, S.C, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, 2018. UT-GOM2-1 Hydrate Pressure Coring Expedition Hole GC 955 H002. In **Flemings, P.B.**, Phillips, S.C, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, *Proceedings of the UT-GOM2-1 Hydrate Pressure Coring Expedition*: Austin, TX (University of Texas Institute for Geophysics, TX). <https://dx.doi.org/10.2172/1648313>
2. **Flemings, P.B.**, Phillips, S.C, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, *Proceedings of the UT-GOM2-1 Hydrate Pressure Coring Expedition*, Austin, TX (University of Texas Institute for Geophysics, TX), <https://dx.doi.org/10.2172/1646019>
3. **Flemings, P.B.**, Phillips, S.C, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, 2018. UT-GOM2-1 Hydrate Pressure Coring Expedition Summary. In **Flemings, P.B.**, Phillips, S.C, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, *Proceedings of the UT-GOM2-1 Hydrate Pressure Coring Expedition*, Austin, TX (University of Texas Institute for Geophysics, TX). <https://dx.doi.org/10.2172/1647223>.
4. **Flemings, P.B.**, Phillips, S.C, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, 2018. UT-GOM2-1 Hydrate Pressure Coring Expedition Methods. In **Flemings, P.B.**, Phillips, S.C, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, *Proceedings of the UT-GOM2-1 Hydrate Pressure Coring Expedition*: Austin, TX (University of Texas Institute for Geophysics, TX). <https://dx.doi.org/10.2172/1647226>
5. **Flemings, P.B.**, Phillips, S.C, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, 2018. UT-GOM2-1 Hydrate Pressure Coring Expedition Hole GC 955 H005. In **Flemings, P.B.**, Phillips, S.C, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, *Proceedings of the UT-GOM2-1 Hydrate Pressure Coring Expedition*: Austin, TX (University of Texas Institute for Geophysics, TX). <https://dx.doi.org/10.2172/1648318>
6. **Flemings, P.B.**, Phillips, S.C, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, 2018, UT-GOM2-1 Hydrate Pressure Coring Expedition Report: Austin, TX, University of Texas Institute for Geophysics, Online

7. **Flemings, P.B.**, Germaine, J.T., Nikolinakou, M.A., Heidari, M., Deirieh, A., Gao, B., Ge, C., Lockhart, L., Parry, A., Picardo, N., Pinkston, F. W. M., Ranjpour, D., Zablocki, M., 2017, UT GeoFluids annual report to Industrial Associates for 2019: slide set 10, The University of Texas at Austin, Institute for Geophysics, annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Pemex, Repsol, Shell, Statoil, (21 presentations/13 posters), Online
8. **Flemings, P.B.**, Germaine, J.T., Nikolinakou, M.A., Heidari, M., Deirieh, A., Gao, B., Ge, C., Lockhart, L., Parry, A., Picardo, N., Pinkston, F. W. M., Ranjpour, D., Zablocki, M., 2017, UT GeoFluids annual report to Industrial Associates for 2018: slide set 9, The University of Texas at Austin, Institute for Geophysics, annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Pemex, Repsol, Shell, Statoil, (21 presentations/13 posters), Online
9. **Flemings, P.B.**, Germaine, J.T., Nikolinakou, M.A., Heidari, M., Deirieh, A., Gao, B., Ge, C., Guiltinan, E., Hanley, A.J., Lockhart, L., Parry, A., Picardo, N., Pinkston, F. W. M., Ranjpour, D., Zablocki, M., 2017, UT GeoFluids annual report to Industrial Associates for 2017: slide set 8, The University of Texas at Austin, Institute for Geophysics, annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Pemex, Repsol, Shell, Statoil, (21 presentations/13 posters), Online
10. **Flemings, P.B.**, Germaine, J.T., Day-Stirrat, R., Deirieh, A., Gao, B., Ge, C., Hanley, A., Harrold, T., Heidari, M., Lockhart, L., Marjanovic, J., , Nikolinakou, M., Nordquist, T., Pinkston, W., Polito, P., Ranjpour, D., Worman, S., 2016, UT GeoFluids annual report to Industrial Associates for 2016: slide set 7, The University of Texas at Austin, Institute for Geophysics, annual report prepared for *Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Murphy Oil, Repsol, Shell, Statoil*, (22 presentations/11 posters), Online
11. **Flemings, P.B.**, Germaine, J.T., Casey, B., Darnell, K., Deirieh, A., Gao, B., Ge, C., Harrold, T., Hauser, M.R., Heidari, M., Marjanovic, J., Meyer, D., Nikolinakou, M., Nordquist, T., Parker, J., Polito, P., Sanford, J., You, K., 2015, UT GeoFluids annual report to Industrial Associates for 2015: slide set 6, The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for *Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Murphy Oil, Repsol, Schlumberger, Shell, Statoil, Total* (24 presentations/9 posters), Online
12. **Flemings, P.B.**, Germaine, J.T., Adams, A., Casey, B., Cronin, M., Darnell, K., Deirieh, A., Fahy, B., Gao, B., Ge, C., Hauser, M.R., Heidari, M., Luo, G., Marjanovic, J., Meyer, D., Nikolinakou, M., Nordquist, T., Sanford, J., You, Y., 2014, UT GeoFluids annual report to Industrial Associates for 2014: slide set 5, The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for *Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Schlumberger, Shell, Statoil, Total* (24 presentations), Online
13. **Flemings, P.B.**, Germaine, J.T., Adams, A., Alberty, M., Betts, W., Bhandari, A.R., Casey, B., Coleff, D., Deirieh, A., Fahy, B., Gao, B., Hermanrud, C., Hurd, G., Luo, G., Marjanovic, J., Merrell, M., Meyer, D., Nikolinakou, M., Reece, J.S., and You, Y., 2013, UT GeoFluids annual report to Industrial Associates for 2013: slide set 4, The University of Texas at Austin, Bureau of Economic Geology, *annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Schlumberger, Shell, Statoil, Total* (27 presentations), Online
14. *+Reece, J.S., **Flemings, P.B.**, and Germaine, J.T., 2013, Data Report: Permeability, compressibility, and microstructure of resedimented mudstone from IODP Expedition 322, Site C0011, In: Saito, S., Underwood, M.B., Kubo, Y., and the Expedition 322 Scientists, Proc. IODP, 322: Tokyo (Integrated Ocean Drilling Program Management International, Inc.), doi:10.2204/iodp.proc.322.205.2013.
15. Dooley, T. P., Jackson, M.P.A., Hudec, M. R., Nikolinakou, M.A., Jackson, C. A., Weijermars, R., Luo, G., and **Flemings, P.B.**, 2012, Applied Geodynamics Laboratory annual report to industrial associates 2012, slide set 31: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for Anadarko, Apache, BHP Billiton, BP, CGGVeritas, Chevron, Cobalt, ConocoPhillips, EcoPetrol, ENI, ExxonMobil, Fugro, Global Geophysical, Hess, ION Geophysical, Korea National Oil Corporation, McMoRan, Maersk, Marathon, Murphy, Nexen, Noble, Petrobras, PGS, Repsol-YPF, Samson, Saudi Aramco, Shell, Statoil, TGS-Nopec, Talisman, Total, WesternGeco, and Woodside, CD-ROM.

16. **Flemings, P.B.**, Germaine, J.T., Adams, A., Betts, W., Casey, B., Cronin, M., Day-Stirrat, R., Gao, B., Greeley, D., Horan, A., Katahara, K., Luo, G., Marjanovic, J., Merrell, M., Nikolinakou, M., Polito, P., Schneider, J., Smith, A., and You, Y., 2012, UT GeoFluids annual report to Industrial Associates for 2012: slide set 3, The University of Texas at Austin, Bureau of Economic Geology, *annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Schlumberger, Shell, Statoil, Total* (23 presentations), Online
17. **Flemings, P.B.**, John, C.M., and Behrmann, J.H., 2012, Expedition 308 synthesis: overpressure, consolidation, and slope stability on the continental slope of the Gulf of Mexico., in **Flemings, P.B.**, Behrmann, J.H., John, C.M., and Expedition 308 Scientists, eds., *Integrated Ocean Drilling Program Management International, Inc., Proc. IODP, 308*
18. Dooley, T., Jackson, M.P.A., Hudec, M. R., Nikolinakou, M.A., Luo, G., Norton, I., **Flemings, P.B.**, Mueller, K., and Snedden, J., 2011, Applied Geodynamics Laboratory annual report to Industrial Associates for 2011, slide set 30: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for Anadarko, Apache, BHP Billiton, BP, CGGVeritas, Chevron, Cobalt, ConocoPhillips, EcoPetrol, ENI, ExxonMobil, Fugro, Global Geophysical, Hess, IMP, Ion, Korea National Oil Corporation, McMoRan, Maersk, Marathon, Murphy, Nexen, Noble, Petrobras, PGS, Repsol-YPF, Samson, Saudi Aramco, Shell, Statoil, TGS-Nopec, Total, WesternGeco, and Woodside, CD-ROM.
19. **Flemings, P.B.**, Germaine, J.T., Adams, A., Betts, W., Braunscheidel, M., Casey, B., Day-Stirrat, R., Gao, B., Heppard, P., Horan, A., Luo, G., Marjanovic, J., Merrell, M., Nikolinakou, M., Sawyer, D., Sayers, C., Schneider, J., Smith, A., and You, Y., 2011, UT GeoFluids annual report to Industrial Associates for 2011: slide set 2, The University of Texas at Austin, Bureau of Economic Geology, *annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Schlumberger, Shell, Statoil, Total* (26 presentations), Online
20. Dooley, T., et al., 2010, Applied Geodynamics Laboratory annual report to Industrial Associates for 2010: slide set 29, The University of Texas at Austin, Bureau of Economic Geology, *prepared for Anadarko, BHP Billiton, BP, CGGVeritas, Chevron, Cobalt, ConocoPhillips, Devon, ENI, ExxonMobil, Fugro, Global Geophysical, GX Technology, Hess, IMP, INEXS, Maersk, Marathon, Mariner, Murphy, Nexen, Noble, Pemex, Petrobras, PGS, Repsol-YPF, Samson, Saudi Aramco, Shell, StatoilHydro, TGS-Nopec, Total, WesternGeco, and Woodside*, CD-ROM
21. **Flemings, P.B.**, Germaine, J.T., Basin, T., Braunscheidel, M., Darnell, K., Day-Stirrat, R., Hudec, M.R., Luo, G., Nikolinakou, M., Sawyer, D.E., Schneider, J., and You, Y., 2010, UT GeoFluids annual report to Industrial Associates for 2010: slide set 1, The University of Texas at Austin, Bureau of Economic Geology, *annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, Devon, ExxonMobil, Hess Corp, Schlumberger, Shell* (22 presentations), Online
22. *Dugan, B., and Germaine, J.T., 2009, Data Report: Strength Characteristics of Sediments from IODP Expedition 308, Sites U1322 and U1324, in **Flemings, P.B.**, John, C., and the Expedition 308 Scientists, eds., *Integrated Ocean Drilling Program Management International, Inc., Proceedings of the Integrated Ocean Drilling Program*, v. 308
23. Jackson, M.P.A., Dooley, Tim, Hudec, M. R., Wagner, Bryce, McDonnell, Angela, **Flemings, P.B.**, Luo, Gang, Nikolinakou, M.A., and Loucks, R. G., 2009, Applied Geodynamics Laboratory annual report to Industrial Associates for 2009: slide set 28: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for Anadarko, BHP Billiton, BP, CGGVeritas, Chevron, Cobalt, ConocoPhillips, Devon, ENI, ExxonMobil, Fugro, GX Technology, Hess, IMP, Maersk, Marathon, Mariner, Murphy, Nexen, Noble, Pemex, Petrobras, PGS, Repsol-YPF, Samson, Saudi Aramco, Shell, StatoilHydro, TGS-Nopec, Total, WesternGeco, and Woodside, CD-ROM.
24. Moore, J.C., Iturrino, G.J., **Flemings, P.B.**, and *Sawyer, D.E., 2009, Data report: stress orientations from borehole breakouts, IODP Expedition 308, Ursa area, Mississippi Fan, Gulf of Mexico, in **Flemings, P.B.**, Behrmann, J.H., John, C.M., and the Expedition 308 Scientists, eds., *Integrated Ocean Drilling Program Management International, Inc., Proceedings of the Integrated Ocean Drilling Program*, v. 308
25. Nelson, H., **Flemings, P.B.**, Germaine, J.T., and *Dugan, B.E., 2009, Data report: radiography and X-ray CT imaging of whole core from IODP Expedition 308, Gulf of Mexico, in **Flemings, P.B.**, Behrmann, J.H., John, C.M., and the Expedition 308 Scientists, eds., *Integrated Ocean Drilling Program Management International, Inc., Proceedings of the Integrated Ocean Drilling Program*, v. 308

26. Gilhooly, W.P., III, Macko, S.A., and **Flemings, P.B.**, 2008, Data report: isotope compositions of sedimentary organic carbon and total nitrogen from Brazos-Trinity Basin IV (Sites U1319 and U1320) and Ursa Basin (Sites U1322 and U1324), deepwater Gulf of Mexico, in **Flemings, P.B.**, Behrmann, J.H., John, C.M., and the Expedition 308 Scientists, eds., Integrated Ocean Drilling Program Management International, Inc., *Proceedings of the Integrated Ocean Drilling Program*, v. 308
27. *Long, H., **Flemings, P.B.**, *Dugan, B., Germaine, J.T., and Ferrell, D., 2008, Data Report: Penetrometer Measurements of In situ Temperature and Pressure on IODP Expedition 308, in **Flemings, P.B.**, Behrmann, J.H., John, C.M., and the Expedition 308 Scientists, eds., Integrated Ocean Drilling Program Management International, Inc., *Proceedings of the Integrated Ocean Drilling Program*, v. 308
28. *Long, H., **Flemings, P.B.**, Germaine, J.T., Saffer, D.M., and *Dugan, B., 2008, Data report: consolidation characteristics of sediments from IODP Expedition 308, Ursa Basin, Gulf of Mexico, in **Flemings, P.B.**, and John, C., eds., Integrated Ocean Drilling Program Management International, Inc., *Proceedings of the Integrated Ocean Drilling Program*, v. 308
29. *Sawyer, D.E., Jacoby, R., **Flemings, P.B.**, and Germaine, J.T., 2008, Data report: particle size analysis of sediments in the Ursa Basin, IODP Expedition 308 Sites U1324 and U1322, northern Gulf of Mexico, in **Flemings, P.B.**, Behrmann, J.H., John, C.M., and the Expedition 308 Scientists, eds., Integrated Ocean Drilling Program Management International, Inc., *Proceedings of the Integrated Ocean Drilling Program*
30. Tan, B., Germaine, J.T., and **Flemings, P.B.**, 2006, Data Report: Consolidation and Strength Characteristics of Sediments from ODP Site 1244, Hydrate Ridge, Cascadia Continental Margin, in Tréhu, A.M., Bohrmann, G., Torres, M.E., and Colwell, F.S., eds., Integrated Ocean Drilling Program Management International, Inc., *Proceedings of the Integrated Ocean Drilling Program*, v. 204, p. 1-148
31. **Flemings, P.B.**, Behrmann, J., Davies, T., John, C., and the Expedition 308 Project Team, 2005, Gulf of Mexico Hydrogeology Overpressure and fluid flow processes in the deepwater Gulf of Mexico: slope stability, seeps, and shallow-water flow, Integrated Ocean Drilling Program Expedition 308 Scientific Prospectus
32. **Flemings, P.B.**, Behrmann, J., John, C., and the Expedition 308 Scientists, 2005, Overpressure and fluid flow processes in the deepwater Gulf of Mexico: slope stability, seeps, and shallow-water flow, Integrated Ocean Drilling Program, *IODP Preliminary Report: College Station, TX*, p. 109
33. **Flemings, P.B.**, Ertekin, T., and McCormick, S., 2005, Petroleum GeoSystems Initiative 2003-2005 Annual Report, p. 92
34. *Dugan, B., et al., 2003, Measuring Pore Pressure in Marine Sediments with Penetrometers: Comparison of the Piezoprobe and DVTP-P Tools in ODP Leg 204, in Thompson, B.J., ed., *Energy, Simulation-Training, Ocean Engineering and Instrumentation: Research Papers of the Link Foundation Fellows*, v. 3
35. *Dugan, B., Olgaard, D.L., **Flemings, P.B.**, and Gooch, M.J., 2002, Data report: Bulk physical properties of sediments from ODP Site 1073, in Christie-Blick, N., Austin, J.A., Jr., and Malone, M.J., eds., *Proc. ODP, Sci. Results*, 174A
36. **Flemings, P.B.**, 2002, Demonstration of Stress Control on Entrapment of Gas in Geopressed Strata with Application to: Exploration (Risking Seal Integrity) and Production (Optimizing Well Bore Stability and Fracture Completion Approaches), *GRI Final Report*, Contract 5095-260-3558
37. **Flemings, P.B.**, Ertekin, T., and Altemus, R., 2002, Petroleum GeoSystems Initiative 2001-2002 Annual Report, p. 92
38. Mikada, H., K. Becker, J. C. Moore, A. Klaus, G. L. Austin, N. L. Bangs, S. Bourlange, J. Broilliard, W. Brückmann, E. R. Corn, E. E. Davis, **P.B. Flemings**, D. S. Goldberg, S. S. Gulick, M. B. Hansen, N. Hayward, D. J. Hills, S. Hunze, M. Ienaga, H. Ishiguro, M. Kinoshita, R. D. Macdonald, L. McNeill, S. Obana, O. S. Hong, S. Peacock, T. L. Pettigrew, S. Saito, T. Sawa, N. Thaiprasert, H. J. Tobin & H. Tsurumi, 2002, Volume 196 Initial Reports: Deformation and Fluid Flow Processes in the Nankai Trough Accretionary Prism: Logging While Drilling and Advanced CORKs, Ocean Drilling Program, Texas A&M University, Proc. ODP, Init. Repts., v. 196
39. *Stump, B.B., and **Flemings, P.B.**, 2002, Consolidation State, Permeability, and Stress Ratio as Determined from Uniaxial Strain Experiments on Mud Samples from the Eugene Island 330 Area, Offshore Louisiana, in Huffman, A.R., and Bowers, G.L., eds., *Pressure regimes in sedimentary basins and their prediction, AAPG Memoir*, v. 76, p. 131-144
40. **Flemings, P.B.**, Ertekin, T., and Altemus, R., 2001, Petroleum GeoSystems Initiative 2000-2001 Annual Report, p. 197

41. **Flemings, P.B.**, Ertekin, T., Ashbaugh, J., and Altemus, R., 2000, Petroleum GeoSystems Initiative 1999-2000 Annual Report, p. 85
42. Change, C., and **Flemings, P.B.**, 1998, Mechanical Properties of the Lentic Sand in Eugene Island 330 Field (Offshore Louisiana), Gas Research Institute, *Topical Report Number 6 (November 1, 1997-June 1, 1998)*, v. GRI 99/0241
43. *Dugan, B., and **Flemings, P.B.**, 1998, Pore Pressure Prediction from Stacking Velocities in the Eugene Island 330 Field (offshore Louisiana), Gas Research Institute, *Topical Report Number 6 (November 1, 1997-June 1, 1998)*, v. GRI 98/0303
44. ³Finkbeiner, T., Zoback, M., and **Flemings, P.B.**, 1998, Characterization of the Full Stress Tensor in Eugene Island Block 330, *Offshore Gulf of Mexico, GRI-98/0072*, p. 41
45. *Stump, B.B., and **Flemings, P.B.**, 1997, Sediment Loading and Resulting Pressure Differences Between Overpressured Sands and Bounding Shales of the Eugene Island 330 Field, Offshore Louisiana, *GRI-97/0266*, p. 42
46. ³Finkbeiner, T., *Stump, B.B., Zoback, M., and **Flemings, P.B.**, 1996, Pressure (Pp), Overburden (Sv), and Minimum Horizontal Stress (Shmin) in Eugene Island Block 330, *GRI-96/0285*, p. 31
47. ⁺Hart, B.S., Sibley, D.M., and **Flemings, P.B.**, 1996, Reservoir compartmentalization by depositional features in a Pleistocene shelf margin (lowstand) delta complex, Eugene Island 330 Field, Louisiana Offshore, in Weimer, P., Davis, T., and Louisiana, F., eds., AAPG Studies in Geology/SEG Geophysical Development Series v. 42/5, p. 21-26
48. Hicks, P.J., ³⁰Bennett, M.H., and **Flemings, P.B.**, 1996a, Numerical Simulations of Fluid Flow in Faults: First Quarterly Report of Stage II, *Report to Exxon Production Research Company*, p. 27
49. Hicks, P.J., ³⁰Bennett, M.H., **Flemings, P.B.**, Shaw, C.A., and Symington, W.A., 1996b, Numerical Simulations of Fluid Flow in Faults: Final Report of State 1, *Report to Exxon Production Research Company, EPR.28EX.96*, p. 78
50. Shaw, C.J., Symington, W.A., **Flemings, P.B.**, and Hicks, P.J., 1996, Numerical Simulations of Fluid Flow in Faults: Implications of Stage I Results, *Report to Exxon Production Research Company, EPR29EX.96*, p. 15
51. Rowan, M.G., Weimer, P., Budhijanto, F., and **Flemings, P.B.**, 1994, Integrated Regional Stratigraphic and Structural Framework and Geologic Evolution of the Eugene Island Block 330 Area, Offshore Louisiana, *DOE Annual Report*, p. 122

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.
3. *Darnell, K., Andrews, M., **Flemings, P.B.**, and Germaine, J.T., 2010, The Temperature 2 Pressure Probe (T2P): A User's Manual from Lab to Sea.
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)

FIELD EXPEDITIONS

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|------|---|
| 2023 | Permafrost Coring, Fairbanks, Alaska, March 2023 (10 days) |
| 2023 | GoM ² -2 Hydrate Expedition, June-October 2023 (15 weeks) |
| 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 ² -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

Video Interview for GeoStories, Jackson School of Geosciences, “High-Stakes Science Under Pressure”, Spring 2025

Video Interview for the Jackson School of Geosciences, “The Mystery of Methan Hydrate”, December 2023

Video Interview for the Jackson School of Geosciences, “What is the Role of Methane Hydrate in the Energy Transition?”, February 2024

Interview – Alcalde, Texas Exes. “UT Research on Methane Hydrate Could Transform the Energy Landscape”, April 2024

Interview – TEXAS Geosciences, “Deepwater Methane Mystery”, August 2023

Interview – TEXAS Geosciences News, “Methane Hydrate: The Mission Continues”, August 2023

UT NEWS: UT Austin Studies Mysterious Substance that Could Transform the Future of Energy, May 2021

Interview – Institute for Geophysics, “Pressure Coring Technology One Step Closer to Gulf of Mexico Hydrates Test”, May 2020

UT NEWS: Science & Technology, Complex Geology Contributed to Deepwater Horizon Disaster, New Study Finds, May 2019

UT NEWS: Science & Technology, UT Study Shows How to Produce Natural Gas While Storing Carbon Dioxide, June 2019

Interview – TEXAS Geosciences News, “Fueling the Future”, October 2017

Interviewed for National Public Radio, September 2017

Interview – TEXAS Geosciences News, “Unlocking the Potential of Methane Hydrate”, October 2016

Interview – TEXAS Geosciences News, “Drilling Deep for Fire and Ice”, October 2014

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>
2022-2024	Multiphase Flow Properties of Thawing Permafrost Soils	Sandia	\$239,245
2021-2025	Impact of upper-plate splay faults on stress, pressure, porosity, and strength of sediments and the megathrust	NSF	\$292,433
2014-2025	Deepwater Methane Hydrate Characterization in the Gulf of Mexico: Scientific Assessment and Production Potential	DOE	\$109,397,911
2013-2029	UT GeoFluids—Industrial Consortium	Industry	\$5,378,385

Completed:

<u>Duration</u>	<u>Title</u>	<u>Source</u>	<u>Amount</u>
2017-2020	ExxonMobil Grid Research Project	ExxonMobil	\$116,565
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 Megasplay 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
2002-2005	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	Consotrium 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

NEW PROGRAMS DEVELOPED

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

COMPUTER SOFTWARE DEVELOPED

- 2014-Present UT Centroid
 2001-Present PSTAR
 2001-Present Overburden Evaluator
 2001-Present PSU-FRAC
 1998-Present STORMSED1.0
see - Cookman, J., Flemings, P.B., 2001, STORMSED1.0: Hydrodynamics and Sediment Transport in a 2-D Steady-State, Wind- and Wave-Driven, Coastal Circulation Model, Computers and Geosciences 27 (6): 647-674.
 1996-1997 Strata: Basin Modeling Tool
see - Flemings, P.B., and Grotzinger, J.P., 1996, STRATA: Freeware for Solving Classic Stratigraphic Problems. GSA Today, 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 (ConocoPhilips)
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 (ExxonMobil)

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 (Diamondback)
9.	Zachary Murphy	Ph.D.	Completed 2023
10.	Landon Lockhart	Ph.D.	Completed 2024
11.	Tim Xiong	Ph.D.	In Progress
12.	Pablo Varela	Ph.D.	In Progress

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

	Name	Degree Sought	Status
1.	Lucas Fidler	M.S.	Completed 2011

PhD Students

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

Membership on Graduate Degree Candidates' Committee

	Name	Degree Sought	Status
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.	Completed 2024
17.	Stephanie Forstner	Ph.D.	Completed 2024
19.	Joshua Edgington	Ph.D.	In Progress

Undergraduate Thesis Research (As primary advisor)

	Name	Degree Sought	Status
1.	Carmen Atkins	B.S. (Geosciences)	Completed 2012 (Berger Geosciences)
2.	Camila Van Der Maal	B.S. (Geology)	In Progress

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

	Name	Degree Sought	Status
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

	Name	Degree Sought	Status
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**

	Name	Degree Sought	Status
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

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

Membership on Graduate Degree Candidates' Committee

	Name	Degree Sought	Status
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)

	Name	Degree Sought	Status
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

Yoshihiro Konno, Visiting Researcher Scholar 2024
 Tanner Mills, Post-Doctoral Fellow, 2023 – Present
 Alejandro Cardona, Post-Doctoral Scientist, 2020-2022
 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
 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)

AWARDS MY STUDENTS/STAFF HAVE WON

2025 Riley Garrett, Departmental Award: 1st Place Best Master's Thesis Presentation
 2022 Kevin Meazell, AAPG George C. Matson Memorial Award (best paper at 2021 AAPG Convention).
 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: Ewig 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

COURSES TAUGHT

Semester	Course	CREDITS	Course Title	Approx. Enrollment
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	4
Spring 2021	GEO 382D	3	Crustal GeoFluids	9
Fall 2021	GEO 382D	3	Crustal GeoFluids	10
Fall 2022	GEO 382D	3	Crustal GeoFluids	9
Fall 2022	GEO 191	1	Geomechanics Seminar (co-taught with D.Saffer)	5
Fall 2022	UGS 302	3	Energy & the Environment (co-taught with D. DiCarlo)	17
Spring 2023	GEO 315L	3	Earth from Lab to Planet	9
Spring 2024	GEO 315L	3	Earth from Lab to Planet	
Fall 2024	GEO 371T	3	Basin Geomechanics	21
Fall 2024	GEO 302T	3	Climate and the Energy Transition	9
Fall 2024	GEO 191	1	Geomechanics Seminar (co-taught with D.Saffer)	6
Spring 2025	GEO 315L	3	Earth from Lab to Planet	20
Spring 2025	GEO 191	1	Geomechanics Seminar (co-taught with D.Saffer)	7
Fall 2025	GEO 371T	3	Climate and the Energy Transition	19

NEW COURSES DEVELOPED

GEO371T	Climate and the Energy Transition
GEO 315L	Earth from Lab to Planet
UGS 302	Energy & the Environment
GEO 391	Basin 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
GEO 330K	Energy Exploration

FIELD TRIPS LED:

Fall 2024:	Basin Geomechanics for graduate course to California
Fall 2022:	3 field trips for Energy and Env., one for Geofluids
Spring 2022:	Crustal Fluids Field trip for graduate course to California
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**

2025	Member, Critical Minerals Search Committee
2022-2024	Program Lead, Subsurface, Surface & Life Program
2022	Member DGS/BEG Faculty Search Committee
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 BUSINESS AND INDUSTRY

2011-2019	Leader, Advanced Pore Pressure Prediction Workshop: Concepts, Mechanisms, and Workflows. Taught once per year.
2013	Consultant, Husky Energy
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)
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	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

2026	Scientific Committee for ICGH 2026, Lyon, France
2020-2024	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 nd 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)

2010-2011	Member Science Proposal Writing Committee—Margins
2010	Vice Chair 1 st Gordon Research Conference in Gas Hydrates
2010-2011	Member GeoPrisms Steering Committee
2010	Co-Convener Rifting Margins Workshop, Nov. 2010.
2009-2012	Member IODP Board of Governors
2008-2009	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