
Ann E. Cook, Professor

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Education

Columbia University, New York, New York, USA

Department of Earth and Environmental Science

Division of Marine Geology and Geophysics at Lamont-Doherty Earth Observatory (LDEO)

2010 Doctorate of Philosophy

2008 Master of Philosophy

2006 Master of Arts

University of Tulsa, Tulsa, Oklahoma, USA

Department of Geosciences

2004 Bachelor of Science in Geology, Mathematics minor

Professional History

2022 – Professor, Ohio State University, School of Earth Sciences

2022 – 2024 Humboldt Fellow and Visiting Scientist, GFZ Hemholtz-Zentrum Potsdam,
Germany

2018 – 2022 Associate Professor, Ohio State University, School of Earth Sciences

2012 – 2018 Assistant Professor, Ohio State University, School of Earth Sciences

2010 – 2012 National Energy Technology Laboratory/National Research Council Methane
Hydrate Postdoctoral Research Fellow at Lamont-Doherty Earth Observatory,
Borehole Research Group

2004 – 2009 Research and Teaching Assistant, LDEO and Columbia University

2008 Intern at Chevron in Deepwater Appraisal, Summer 2008

2003 – 2004 Well Log Assistant Analyst, Kaiser-Francis Oil Company, Tulsa, OK

2002 National Science Foundation REU Summer Research Intern at Lamont-Doherty
Earth Observatory in collaboration with Schlumberger, Summer 2002

Offshore Experience

2023 Data Integration Lead for GOM²-2 in Walker Ridge Block 313, northern Gulf of
Mexico, onboard the *Q4000*. August 2023.

2018 Downhole Measurements/Physical Properties Specialist (LWD Team Lead) onboard
the *JOIDES Resolution* IODP Leg 372, Creeping Gas Hydrates and Hikurangi
Margin. Nov 2017-Jan 2018.

2017 Log/Seismic/Core Integration Scientist for GOM²-1, Green Canyon Block 955,
northern Gulf of Mexico, onboard the *Q4000*. May 2017.

- 2009 Assistant Logging Scientist for the Chevron/DOE Gulf of Mexico Gas Hydrate Joint Industry Project, Leg II, onboard the *Q4000*. April-May 2009.
- 2006 Assistant Logging Scientist for the Indian National Gas Hydrate Program Expedition 1 (NGHP-01) Legs 1 & 2, onboard the *JOIDES Resolution*. Spring 2006.

Awards & Honors

- 2023 Donald W. Davidson Award for outstanding contributions to gas hydrates by a young scientist; awarded at the 10th International Conference on Gas Hydrates, Singapore
- 2022 Humboldt Research Fellowship for Experienced Researchers, Alexander von Humboldt Foundation, Germany
- 2022 Distinguished Graduate Faculty Teaching Award, School of Earth Science, Ohio State University
- 2019, 2022 Japan-American-German Frontiers of Science Fellow, National Academy of Science
- 2019 Frontiers of Science Kavli Fellow, National Academy of Science
- 2018 CAREER Award, National Science Foundation
- 2016 Early Career Gulf Research Fellowship, National Academy of Science
- 2014 Distinguished Undergraduate Faculty Teaching Award, School of Earth Science, Ohio State University
- 2013 Ralph E. Powe Junior Faculty Enhancement Award, Oak Ridge Universities
- 2010 Postdoctoral Fellow, National Research Council/National Energy Technology Laboratory
- 2004 A.N. Murray Award for Excellence in Geosciences, University of Tulsa
- 2003 Undergraduate Awards from: Society of Exploration Geophysics, Society of Petrophysicists and Well Log Analysts, Society of Independent and Professional Earth Scientists, Desk and Derrick Club of Tulsa

Invited Talks

- 2022 GFZ Hemholtz-Zentrum Potsdam, Geochemistry Section, Potsdam, Germany. November 2022.
- 2022 GEOMAR Hemholtz Center for Ocean Research in Kiel, Germany. June 2022.
- 2021 University of Wisconsin - Milwaukee. Department of Geosciences. Delivered Online, November 2021.
- 2021 NSF Sponsored GeoPRISMS Workshop: Extensional Processes Across Tectonic Settings and Time Scales. Delivered Online, June 2021.
- 2021 Core-Log-Seismic (CLS) Integration Workshop, Hosted by the GEOMAR Hemholtz Center for Ocean Research in Kiel, Germany. Delivered Online, April 2021.
- 2021 University of Texas at Austin, Jackson School of Geosciences. Hydrate Community Meeting. Delivered Online, March 2021.
- 2021 Ball State University, Department of Geology, Environment and Natural Resources, Muncie, Indiana. Delivered Online. February 2021.
- 2019 Astrobiology Science Conference (AbSciCon), American Geophysical Union. 103-1. Bellevue, Washington. May 2019.

- 2018 American Geophysical Union 2018 Fall Meeting. OS13A-04. Washington DC. December 2018. Cook was the invited speaker. Talk delivered by co-author K. Heeschen due to family emergency.
- 2018 Gordon Research Conference on the Symbiotic World of Gas Hydrate in Galveston, Texas. February 2018.
- 2017 Miami University, Department of Geology and Environmental Earth Science, Oxford, Ohio, October 2017.
- 2016 University of Akron, Department of Geosciences, Akron, Ohio, November 2016.
- 2016 Ohio University, Department of Geological Sciences, Athens, Ohio, October 2016.
- 2015 University of Oklahoma, ConocoPhillips School of Geology and Geophysics, Norman, Oklahoma, October 2015.
- 2015 University of Texas at Austin, Department of Petroleum and Geosystems Engineering, January 2015.
- 2014 American Geophysical Union 2014 Fall Meeting. OS24A-02. San Francisco, California. December 2014.
- 2011 Ohio State University, School of Earth Sciences, Columbus, Ohio. April 2011.
- 2010 Gordon Research Conference on Natural Gas Hydrate Systems at Colby College, Waterville, Maine. June 2010.
- 2010 Georgia Institute of Technology, Department of Energy Gas Hydrate Workshop. January 2010.
- 2008 Louisiana State University, Department of Geology and Geophysics, Baton Rouge, Louisiana, October 2008.

External Funding

- 2023 – 2024 Department of Defense, Army Research Office. Environmental Triaxial Automated System for Research on Permafrost Degradation and Hydrate Dissociation. Defense University Research Instrumentation Program (DURIP). M. Liew (PI) and **A. Cook** (CoPI). Proposal No. 82317-ME-RIP. \$431,254.
- 2022 – 2025 Alexander von Humboldt Foundation (Germany). Linking natural gas hydrate systems and laboratory measurements using long-term experiments. Fellowship for Experienced Researchers. **A. Cook**. Award to work with J. Schicks, GFZ Potsdam. Estimated award value: €70,000 or \$70,000
- 2022 – 2023 Bureau of Ocean Energy Management. Methane hydrate prospect analysis in the Gulf of Mexico-Phase 2. **A. Cook** (PI) and A. Portnov (Subcontractor). AWD-112907 \$149,915.
- 2018 – 2023 National Science Foundation. CAREER: Carbon storage in widespread low-saturation gas hydrate systems. Award 1752882. **A. Cook** (PI). \$615,848. Education component in collaboration with A.M. Nuñez.
- 2014 – 2024 Department of Energy to UT-Austin. Deepwater methane hydrate characterization and scientific assessment. \$83.9 Million. Original PIs: P. Flemings (PI-UT Austin). Additional Leads: **A. Cook** (OSU), D. Divins (U. New Hampshire), D. Goldberg (LDEO), and T. Collett (USGS). Now includes additional collaborators: J. Johnson (U. New Hampshire), R. Cowell (Oregon State), E. Solomon (U. Washington). Award DE-FE0023919. Subaward to Ohio State, with **A. Cook** (PI) with Ohio State CoPIs D. Sawyer and T. Darrah: \$2.0 Million.

- 2019 – 2021 Bureau of Ocean Energy Management. Gulf of Mexico Hydrate Mapping and Interpretation Analysis. **A. Cook** (PI). Award 140M0119P0041. Written in collaboration with A. Portnov. \$109,727.
- 2018 – 2019 International Ocean Discovery Program (IODP). Modeling methane hydrate accumulations in thin turbidite sand layers. Post Expedition Activity (PEA) research support for IODP 372. **A. Cook** (PI). \$17,996.
- 2017 – 2018 International Ocean Discovery Program (IODP). Salary support for participating in IODP 372: Creeping Gas Hydrate Slides and Hikurangi LWD in November 2017-January 2018. **A. Cook**. \$26,658.
- 2016 – 2018 National Academy of Science, Engineering and Medicine Early Career Gulf Research Fellowship. **A. Cook**, \$76,000. Mentor: S. Lower.
- 2014 – 2017 Department of Energy to Ohio State. Utica Shale Energy and Environmental Laboratory (USEEL). \$7.6 Million. D. Cole (PI), N. Basta, J. Bielecki, **A. Cook**, T. Darrah, P. Dutta, R. Lanno, K. Martin, P. Mouser, S. Prakash, F. Schwartz, E. Toman, M. Wilkins, B. Wolfe. Additional Collaborations with West Virginia U. (Lead T. Carr) and Texas A & M (Lead: D. Zhu). Award: DE-FE0024357. Covered only student support for A. Cook. The award ended early without drilling USEEL due to problems securing an operator.
- 2013 – 2017 Department of Energy to UT-Austin. Mechanisms for methane transport and hydrate accumulation in coarse-grained reservoirs. \$1.67 Million. H. Daigle (PI-UT Austin), **A. Cook** (OSU), and A. Malinverno (LDEO). Award DE-FE0013919. Subaward to Ohio State: \$338,854.
- 2013 – 2014 Ralph E. Powe Junior Faculty Enhancement Award, Oak Ridge Associated Universities. Multi-scale investigations of porosity and organic matter distribution in the Eagle Ford Shale. **A. Cook** (PI). \$5000, with \$5000 Ohio State College of Arts & Sciences cost-share.
- 2012 – 2015 Department of Energy to Ohio State. A new approach to understanding the occurrence and volume of natural gas hydrate in the Northern Gulf of Mexico using petroleum industry well logs. **A. Cook** (PI), \$286,212. Award DE-FE0009949.
- 2010 – 2012 National Research Council and National Energy Technology Laboratory, Methane Hydrate Postdoctoral Research Fellowship. **A. Cook**, ~\$185,000. Award DE-FC26-05NT42248.
- 2003 – 2004 Society of Petrophysicists and Well Log Analysts Undergraduate Research Grant NMR measurements of tetrahydrofuran hydrate **A. Cook**, \$4000.

Active IODP (Integrated Ocean Drilling Program) Proposals

Linking sediment deposition during glacial cycles and methane hydrate occurrence. **A. Cook** (Lead Proponent), A. Portnov (Data Lead), A. Malinverno, S. Phillips, K. Thirumalai, E. Arellano Torres, R. Colwell, E. Solomon, J. Hillman, K. Weitemeyer, and P. Flemings. 961-APL. This proposal passed scientific review (Jan 2020) and was waiting to be scheduled by the JRFB; because IODP is ending it will not be scheduled. We plan to move this proposal to the new US scientific drilling infrastructure when it is established.

Internal Funding

- 2017 – 2019 Battelle Engineering, Technology and Human Affairs (BETHA) Grant. Shake the Shoe: Connecting Earthquake Science and Football with the Best Fans in the Land. D. Sawyer, **A. Cook**, W. Panero, M. Brudzinski, P. Frost Gorder, J. Fox, and D. Blake. \$31,140 from BETHA, and \$32,415 from Ohio State.
- 2013 – 2015 Ohio State University, CEOS-Connect Award. **A. Cook**, \$5000.

Peer Reviewed Articles

Indicates Cook advised: †Postdoc, §Graduate student, ‡Undergraduate student

52. Kuang, Z., **Cook, A.**, Ren, J., Deng, W., Cao, Y., Cai, H. (2023) Flat-lying transitional free gas to gas hydrate system in a sand layer in the Qiongdongnan Basin of the South China Sea. *Geophysical Research Letters*, 50, doi: 10.1029/2023GL105744
51. ‡**Naim, F.**, **Cook, A.E.**, Moortgat, J. (2023) Estimating P-wave Velocity and Bulk Density in Near-seafloor Sediments Using Machine Learning, *Energies*. 16(23) doi:10.3390/en16237709
50. **Cook, A.E.**, Portnov, A., †**Heber, R.**, Vadakkepuliambatta, S., and Bünz, S. (2023) Widespread subseafloor gas hydrate in the Barents Sea and Norwegian Margin. *Earth and Planetary Science Letters*. doi: 10.1016/j.epsl.2023.117993
49. Portnov, A., You, K., Flemings, P.B., **Cook, A.E.**, Heidari, M., Sawyer, D.E. and Bünz, S. (2023) Dating submarine landslides using the transient response of gas hydrate stability. *Geology*. doi: 10.1130/G50930.1
48. **Cook, A.E.** and Portnov, A. (2022) Natural Gas Hydrate Systems. In: Bell, R., Iacopini, D., and Vardy, M., Interpreting Subsurface Seismic Data. doi: 10.1016/B978-0-12-818562-9.00006-6
47. Portnov, A., **Cook, A.E.**, Sawyer, D.E. (2022) Bottom Simulating Reflections and Seismic Phase Reversals in the Gulf of Mexico. In: Mienert, J., Berndt, C., Tréhu, A.M., Camerlenghi, A., Liu, CS. (eds) *World Atlas of Submarine Gas Hydrates in Continental Margins*. Springer, Cham. doi:10.1007/978-3-030-81186-0_26
46. Woodhouse, A., Barnes, P., Schrock, A., Strachen, L., Crundwell, M., Bostock, H., Hopikins, J., Kutterolf, S., Pank, K., Behrens, E., Greve, A., Bell, R., **Cook, A.E.**, Petronotis, K., LeVay, L., Jamieson, R., Wallace, L., Saffer, D., Pecher, I. (2022) Trench floor depositional response to glacio-eustatic changes over the last 45 ka, northern Hikurangi subduction margin, New Zealand. *New Zealand Journal of Geology and Geophysics*. doi: 10.1080/00288306.2022.2099432
45. Crutchley, G.J., Elger, J., Kuhlmann, J., Mountjoy, J.J., Orpin, A., Georgiopoulou, A., Carey, J., Dugan, B., Cardona, S., Han, S., **Cook, A.**, Sreaton, E. J., Pecher, I.A., Barnes, P., Huhn, K. (2022) Characterizing pre-failure and post-failure sediments at the submarine Tuaheni Landslide Complex, New Zealand: a core-log-seismic integration study. *Journal of Geophysical Research*. doi: 10.1029/2021JB021997
44. †**Moore, M.**, Phillips, S., **Cook, A.E.**, and Darrah, T., (2022) Integrated geochemical approach to determine the source of methane in gas hydrate from Green Canyon Block 955 in the Gulf of Mexico. *AAPG Bulletin*. doi: 10.1306/05272120087.
43. †**Wei, L.**, **Cook, A.E.**, and You, K., (2022) Methane migration mechanisms for the GC 955 gas hydrate reservoir, Northern Gulf of Mexico. *AAPG Bulletin*. doi: 10.1306/06022120134
42. †**Oti, E.**, **Cook, A.E.**, Phillips, S. C., and Holland, M. (2022) Using X-ray Computed Tomography (XCT) to Estimate Hydrate Saturation in Sediment Cores from Green Canyon 955, northern Gulf of Mexico. *AAPG Bulletin*. doi: 10.1306/05272120051.

41. **Portnov, A., Cook, A.E.,** and Vadakkepuliambatta, S., (2021) Diverse gas composition controls the Moby-Dick gas hydrate system in the Gulf of Mexico. *Geology*. doi: 10.1130/G49310.1
40. McNamara, D., Behoudi, E., Wallace, L.M, Saffer, D., **Cook, A.E,** Fagereng, A., Paganoni, M., Hung-Yu, W., Young Kim, G., Lee, H., Savage, H., Barnes, P., Pecher, I., LeVay, L., and Petronotis, K., (2021) Variable in-situ stress orientations across the northern Hikurangi Subduction Margin. *Geophysical Research Letters*. doi: 10.1029/2020GL091707
39. Daigle, H., **Cook, A.E.,** Fang, Y., Bihani, A., Song, W., and Flemings, P.B. (2020) Gas driven tensile fracturing in shallow marine sediments. *Journal of Geophysical Research Solid Earth*, 125 (12). doi:10.1029/2020JB020835
38. Moore, M., Phillips, S. C., **Cook, A.E.,** Darrah, T.H. (2020) Improved sampling technique to collect natural gas from hydrate-bearing pressure cores. *Applied Geochemistry*, 122. doi: 10.1016/j.apgeochem.2020.104773
37. **Cook, A.E.,** Paganoni, M., Clennell, M.B., McNamara, D.D., Nole, M., Wang, X., Han, S., Bell, R.E., Solomon, E.A., Saffer, D.M., Barnes, P.M., Pecher, I., Wallace, L.M., LeVay, L.J., and Petronotis, K. (2020) Physical properties and gas hydrate at a near-seafloor thrust fault, Hikurangi Margin, New Zealand, *Geophysical Research Letters*, 47. doi: 10.1029/2020GL088474
36. Flemings, P.B., Phillips, S.C., Boswell, R., Collett, T.S., **Cook, A.E.,** Dong, T., Frye, M., Guerin, G., Goldberg, D.S., Holland, M.E., Jang, J., Meazell, K., Morrison, J., O'Connell, J., Pettigrew, T., Petrou, E., Polito, P., **Portnov, A.,** Santra, M., Schultheiss, P., Seol, Y., Shedd, W., Solomon, E.A., Thomas, C., Waite, W.F., and You, K. (2020) Concentrated hydrate in a deepwater Gulf of Mexico turbidite reservoir: initial results from the UT-GOM2-1 Hydrate Pressure Coring Expedition. *AAPG Bulletin*, 104. doi: 10.1306/05212019052
35. Barnes, P.M , Wallace, L.M., Saffer, D.M., Bell, R.B., Underwood, M. B., Fagereng, A., Meneghini, F., Savage, H.M., Rabinowitz, H.S., Morgan, J.K., Kitajima, H., Kutterolf, S.O. Hashimoto, Y., Engelmann de Oliveira, C.H., Noda, A., Crundwell, M.P., Shepherd, C.L., Woodhouse, A.D., Harris, H.N., Wang, M., Henrys, S., Barker, D.H.N., Petronotis, K.E., Bourlange, S.M., Clennell, M.B., **Cook, A.E.,** Dugan, B.E., Elger, J., Fulton, P.M., Gamboa, D., Greve, A., Han, S., Hüpers, A., Ikari, M.J., Ito, Y., Kim, G.Y., Koge, H., Lee, H., Li, X., Luo, M., Malie, P., Moore, G.F., Mountjoy, J.J., McNamara, D.D., Paganoni, M., Sreaton, E.J., Shankar, U., Shreedharan, S., Solomon, E.A., Wang, X., Wu, H., Pecher, I., LeVay, L.J., and IODP Expedition 372 Scientists (2020) Slow slip source characterized by lithological and geometrical heterogeneity. *Science Advances*, 6 (13). doi:10.1126/sciadv.aay3314
34. Thomas, C., Phillips, S.C., Flemings, P.B., Santra, M., Hammon, H., Collett, T., **Cook, A.,** Pettigrew, T., Holland, M., and Schultheiss, P., (2020) Pressure-coring operations during Expedition UT-GOM2-1 in Green Canyon Block 955, northern Gulf of Mexico. *AAPG Bulletin*, 104. doi: 10.1306/02262019036
33. **Portnov, A.,** Santra, M., **Cook, A.E.,** and Sawyer, D.E, (2020) The Jackalope gas hydrate system in the northeastern Gulf of Mexico. *Journal of Marine and Petroleum Geology*, 111. doi: 10.1016/j.marpetgeo.2019.08.036
32. **Portnov, A., Cook, A.E.,** Heidari, M., Sawyer, D.E., Santra, M., Nikolinakou, M., (2020) Salt-driven evolution of a gas hydrate reservoir in Green Canyon, Gulf of Mexico. *AAPG Bulletin*, 104. doi: 10.1306/10151818125

31. [§]Oti, E., Cook, A.E., Welch, S., Sheets, J., Crandall, D., Rose, K., and Daigle, H., (2019) Hydrate-filled Fracture Formation at Keathley Canyon 151 and Implications for Non-vent Sites. *Geochemistry, Geophysics, Geosystems*, 20 (11). doi: 10.1029/2019GC008637
30. [‡]Portnov, A., Cook, A.E., Sawyer, D.E., [§]Yang, C., Hillman, J.I.T., and Waite, W., (2019) Clustered BSRs: evidence for gas hydrate-bearing turbidite complexes in folded regions. *Earth and Planetary Science Letters*, 528, doi: 10.1016/j.epsl.2019.115843
29. [§]Wei, L., Cook, A.E., Daigle, H., Malinverno, A., Nole, M., You, K., (2019) Factors controlling short-range migration of gas hydrate accumulations in thin coarse-grained layers. *Geochemistry, Geophysics, Geosystems*, 20(8). doi: 10.1029/2019GC008405
28. Cook, A.E., and [‡]Portnov, A. (2019) Gas hydrates in coarse-grained reservoirs interpreted from velocity pull up: Mississippi Fan, Gulf of Mexico. Comment. *Geology*, 47(3). doi: 10.1130/G45609C.1
27. Sawyer, D.E, Mason, R.A., Cook, A.E., and Portnov, A., (2019) Submarine landslides induce massive waves in subsea brine pools. *Scientific Reports*, 9, 128. doi: 10.1038/s41598-018-36781-7
26. [§]Majumdar, U., and Cook, A.E. (2018) The volume of gas hydrate-bound gas in the northern Gulf of Mexico. *Geochemistry, Geophysics, Geosystems*, 19(11), 4313–4328. doi: 10.1029/2018GC007865
25. Dipre, G., Polyak, L., Kuznetsov, A.B., [§]Oti, E.A., Ortiz, J.D., Brachfeld, S.A., Xuan, C., Lazar, K.B., Cook, A.E. (2018), Plio-Pleistocene sedimentary record from the Northwind Ridge: new insights into paleoclimatic evolution of the western Arctic Ocean for the last 5 Ma. *arktos*, 4:24. doi: 10.1007/s41063-018-0054-y
24. Nole, M., Daigle, H., Cook, A.E., Malinverno, A., Flemings, P.B., (2018) Burial-driven methane recycling in marine gas hydrate systems. *Earth and Planetary Science Letters*, 499, 197-204. doi: 10.1016/j.epsl.2018.07.036
23. Cook, A.E., and Waite, W.F. (2018) Archie's saturation exponent for natural gas hydrate in sand reservoirs. *Journal of Geophysical Research: Solid Earth*, 123. doi: 10.1002/2017JB015138
22. Malinverno, A., Cook, A.E., Daigle, H., and Oryan, B., (2018) Glacial cycles influence marine methane hydrate formation. *Geophysical Research Letters*, 45, 724-732. doi: 10.1002/2017GL075848
21. [‡]Hillman, J.I.T., Cook, A.E., Daigle, H., Nole, M., Malinverno, A., Meazell, K. and Flemings, P.B., (2017) Gas hydrate reservoirs and gas migration mechanisms in the Terrebonne Basin, Gulf of Mexico. *Marine and Petroleum Geology*, 86. doi:10.1016/j.marpetgeo.2017.07.029
20. [§]Majumdar, U., Cook, A.E., [¶]Scharenberg, M.L., [¶]Burchwell, A.E., [¶]Ismail, S., Frye, M. and Shedd, W. (2017) Gas hydrate assessment from petroleum industry well logs in the northern Gulf of Mexico. *Marine and Petroleum Geology*, 85. doi: 10.1016/j.marpetgeo.2017.05.009
19. Nole, M., Daigle, H., Cook, A.E., [‡]Hillman, J.I.T., and Malinverno, A., (2017) Linking basin-scale and pore-scale gas hydrate distribution patterns in diffusion-dominated marine hydrate systems. *Geochemistry, Geophysics, Geosystems*. 18(2), 653-675. doi: 10.1002/2016GC006662
18. [‡]Hillman, J.I.T., Cook, A.E., Sawyer, D.E., Küçük, H.M., and Goldberg, D.S. (2017) The character and amplitude of 'discontinuous' bottom-simulating reflections in marine seismic data. *Earth and Planetary Science Letters*, 459. doi: 10.1016/j.epsl.2016.10.058

17. Nole, M., Daigle, H., **Cook, A.E.**, and Malinverno, A., (2016) Short-range, overpressure-driven methane migration in coarse-grained gas hydrate reservoirs. *Geophysical Research Letters*, 43(18), doi: 10.1002/2016GL070096
16. **Majumdar, U., Cook, A.E.**, Shedd, W. and Frye, M. (2016) The connection between natural gas hydrate and bottom simulating reflectors. *Geophysical Research Letters*, 43(13), doi: 10/1002/2016GL069443
15. Daigle, H., **Cook, A.**, and Malinverno, A. (2015) Permeability and porosity of hydrate-bearing sediments in the northern Gulf of Mexico. *Marine and Petroleum Geology*, 68, 551-564. doi:10.1016/j.marpetgeo.2015.10.004
14. **Cook, A.E.** and D.E. Sawyer (2015) The mud-sand crossover on marine seismic data. *Geophysics*, 80(6), A109-A114. doi:10:1190.geo2015-0291.1
13. Jin, Z., Johnson, S., and **Cook, A.E.**, (2015) Crack extension induced by dissociation of fracture-hosted methane gas hydrate. *Geophysical Research Letters*, 42(2). doi: 10.1002/2015GL066060.
12. **Cook, A.E.**, and **Tost, B.C.** (2014) Geophysical signatures for low porosity can mimic natural gas hydrate: an example from Alaminos Canyon. *Journal of Geophysical Research*, 119(10), 7458-7472. doi: 10.1002/2014JB011342
11. **Cook, A.E.**, Goldberg, D., and Malinverno, A., (2014) Natural gas hydrates occupying fractures: A focus on non-vent sites on the Indian continental margin and the northern Gulf of Mexico. *Marine and Petroleum Geology*, 58, 278-291. doi: 10.1016/j.marpetgeo.2014.04.013
10. Babcock, L.E., Baranoski, M.T., and **Cook, A.E.** (2014) Cambrian (Guzhangian Stage) trilobites from Ohio, USA and modification of the Cedaria Zone as used in Laurentia GFF, 136(1). doi: 10.1080/11035897.2013.879736
9. **Cook, A.E.** and Malinverno, A. (2013) Short migration of methane into a gas hydrate-bearing sand layer at Walker Ridge, Gulf of Mexico. *Geochemistry, Geophysics, Geosystems*, 14(2). doi: 10.1002/ggge.20040
8. **Cook, A.E.**, Anderson, B.I., Rasmus, J., Sun, K., Li, Q., Collett, T.S., and Goldberg, D.S. (2012) Electrical anisotropy of gas hydrate bearing sand reservoirs in the Gulf of Mexico. *Marine and Petroleum Geology*, 34, 72-84, doi:10.1016/j.marpetgeo.2011.09.003
7. Boswell, R., Frye, M., Shelander, D., Shedd, W., McConnell, D., and **Cook, A.** (2012) Architecture of gas-hydrate-bearing sands from Walker Ridge 313, Green Canyon 955, and Alaminos Canyon 21: Northern deepwater Gulf of Mexico. *Marine and Petroleum Geology*, 34, 134-149. doi:10.1016/j.marpetgeo.2011.08.010
6. Collett, T.S., Lee, M.W., Zyrianova, M.V., Mrozewski, S.A., Guerin, G., **Cook, A.E.**, and Goldberg, D.S. (2012) Gulf of Mexico Gas Hydrate Joint Industry Project Leg II logging-while-drilling data acquisition and analysis. *Marine and Petroleum Geology*, 34, 41-61, doi:10.1016.marpetgeo.2011.08.003
5. **Cook, A.E.**, Anderson, B. I., Malinverno, A., Mrozewski, S., and Goldberg, D.S. (2010) Electrical anisotropy due to gas hydrate-filled fracture planes. *Geophysics*, 75(6). F173-F185. doi:10.1190/1.3506530
4. Riedel, M., Collett, T.S., Kumar, P., Sathe, A.V., and **Cook, A.** (2010) Seismic imaging of a fractured gas hydrate system in the Krishna-Godavari Basin offshore India. *Marine and Petroleum Geology* 27, 1476-1493. doi:10.1016/j.marpetgeo.2010.06.002
3. **Cook, A.E.**, and Goldberg, D.S. (2008) Extent of gas hydrate filled fracture planes: Implications for in situ methanogenesis and resource potential. *Geophysical Research Letters*, 35(15). doi:10.1029/2008GL034587

2. **Cook, A.E.**, Goldberg, D., and Kleinberg, R.L. (2008) Fracture-controlled gas hydrate systems in the northern Gulf of Mexico, *Marine and Petroleum Geology*, 25, 932-941.
doi:10.1016/j.marpetgeo.2008.01.013
1. Levine, J.S., Matter, J.M., Goldberg, D., **Cook, A.**, and Lackner, K.S. (2007) Gravitational trapping of carbon dioxide in deep sea marine sediments: Permeability, buoyancy and geomechanical analysis. *Geophysical Research Letters*, 34(24). doi:10.1029/2007GL031560

Articles in Peer Review

Indicates advised: †postdoc, §graduate student, ‡undergraduate student

1. †**Naim, F.**, and **Cook, A.E.**, (2023, submitted) Gas hydrate in the North Carnarvon Basin, offshore Western Australia. *Journal of Marine and Petroleum Geology*. Submitted November 2023.
2. †**Kumar, A.**, **Cook, A.E.**, Portnov, A., †**Skopec, S.**, Frye, M., and Palmes, S., (2023, submitted) Bottom simulating reflections across the northern Gulf of Mexico slope. *Journal of Marine and Petroleum Geology*. Submitted December 2023.

Articles and Reports without Peer Review

- Pecher I.A., Barnes P.M., LeVay L.J., Bourlange S.M., Brunet M.M.Y., Cardona S., Clennell M.B., **Cook A.E.**, Dugan B., Elger J., Gamboa D., Georgiopoulou A., Han S., Heeschen K.U., Hu G., Kim G.Y., Koge H., Machado K.S., McNamara D.D., Moore G.F., Mountjoy J.J., Nole M.A., Owari S., Paganoni M., Rose P.S., Sreaton E.J., Shankar U., Torres M.E., Wang X., Wu H.-Y., Sharuga S.M., Todd E.K., Robinson J.C., Robinson M. (2018). International ocean discovery program expedition 372 preliminary report creeping gas hydrate slides and Hikurangi LWD. Integrated Ocean Drilling Program, doi: 10.14379/iodp.pr.372.2018
- Flemings, P.B., Phillips, S.C, Collett, T., **Cook, A.**, Boswell, R., and the UT-GOM2-1 Expedition Scientists (2017) UT-GOM2-1 Hydrate Pressure Coring Expedition Report. UT Austin. Available at: <https://ig.utexas.edu/energy/genesis-of-methane-hydrate-in-coarse-grained-systems/expedition-ut-gom2-1/>
- Birchwood, R., Dai, J., Shelander, D., Boswell, R., Collett, T., **Cook, A.**, Dallimore, S., Fujii, K., Imasato, Y., Fukuhara, M., Kusaka, K., Murray, D., and Saeki, T.,(2010) Developments in Gas Hydrates, *Oilfield Review*, Spring Edition, 18-33.
- McConnell, D., Boswell, R., Collett, T., Frye, M., Shedd, W., Guerin, G., **Cook, A.**, Mrowzewski, S., Dufrene, R., and Godfriaux, P., (2010) Gulf of Mexico Gas Hydrate Joint Industry Project Leg II: Walker Ridge 313 Site Summary. *NETL*. Available at netl.doe.gov
- McConnell, D., Boswell, R., Collett, T., Frye, M., Shedd, W., Guerin, G., **Cook, A.**, Mrowzewski, S., Dufrene, R., and Godfriaux, P., (2010) Gulf of Mexico Gas Hydrate Joint Industry Project Leg II: Green Canyon 955 Site Summary. *NETL*. Available at netl.doe.gov
- Cook, A.**, Guerin, G., Mrowzewski, S., Collett, T., and Boswell, R., Gulf of Mexico Gas Hydrate Joint Industry Project Leg II: Walker Ridge 313 LWD Operations and Results. *NETL*. Available at netl.doe.gov
- Guerin, G., **Cook, A.**, Mrowzewski, S., Collett, T., and Boswell, R., Gulf of Mexico Gas Hydrate Joint Industry Project Leg II: Green Canyon 955 LWD Operations and Results. *NETL*. Available at netl.doe.gov
- Guerin, G., **Cook, A.**, Mrowzewski, S., Collett, T., and Boswell, R., Gulf of Mexico Gas Hydrate Joint Industry Project Leg II: Alaminos Canyon 21 LWD Operations and Results. *NETL*. Available at netl.doe.gov

Conference Articles

Indicates advised: †postdoc, §graduate student, ‡undergraduate student

- Daigle, H., **Cook, A.**, Malinverno, A., Nole, M., Bihani, A., Andris, R., §Wei, L. and †Hillman, J. (2017), Methane Transport and Accumulation in Coarse-Grained Reservoirs in the Terrebonne Basin, Northern Gulf of Mexico, in *Proceedings of the 9th International Conference on Gas Hydrates*. Denver, Colorado.
- Flemings, P.B., Boswell, R., Collett, T.S., **Cook, A.E.**, Divins, D., Frye, M., Guerin, G., Goldberg, D.S., Malinverno, A., Morrison, J., Pettigrew, T., Philips, S.C., Santra, M., Sawyer, E., Shedd, W., Thomas, C. and You, K., (2017), GOM²: Prospecting, Drilling and Sampling Coarse-Grained Hydrate Reservoirs in the Deepwater Gulf of Mexico, in: *Proceedings of the 9th International Conference on Gas Hydrates*. Denver, Colorado.
- Swift A., Sheets J., Cole D., Anovitz L., Welch S., Gu X., Mildner D., Chipera S., Buchwalter E., **Cook A.** (2014) Nano-to microscale pore characterization of the Utica Shale. Society of Petroleum Engineers - SPE/AAPG/SEG Unconventional Resources Technology Conference. August, 2014.
- §Majumdar, U., **Cook, A.**, ‡Ismail, S., Frye, M., and Shedd, W., (2014) A new approach to determining the occurrence of natural gas hydrate in the northern Gulf of Mexico using petroleum industry well logs. *Proceedings of the 8th International Conference on Gas Hydrates*. Beijing, China. July 28-Aug 1, 2014.
- §Tost, B.C and **Cook, A.E.**, (2013) Do Gas Hydrates Occur in Alaminos Canyon, Gulf of Mexico? *Unconventional Resources Technology Conference*, Denver Colorado, August 12-14, 2013
- Cook, A.**, Rasmus, J., Li, Q., Sun, K., Anderson, B., Collett, T., and Goldberg D., (2011) Analyzing electrical anisotropy in gas hydrate reservoirs using logging-while-drilling directional resistivity data from the Gulf of Mexico Gas Hydrate Joint Industry Project. *Proceedings of the 7th International Conference on Gas Hydrates*, Edinburgh, Scotland, July 17-21, 2011.
- Mrozewski, S., **Cook, A.**, Guerin, G., Goldberg, D., Collett, T., Boswell, R., Jones, E., (2010) Gulf of Mexico Gas Hydrate Joint Industry Project, Leg II, LWD Logging Program Design, Data Acquisition and Evaluation. *Offshore Technology Conference, 2010*. May 3-6, 2010. Paper Number 21023-MS. Available through OnePetro.
- Cook, A.**, and Goldberg, D., (2008) Stress and gas hydrate-filled fracture distribution, Krishna-Godavari Basin, *Proceedings of the 6th International Conference on Gas Hydrates*, Vancouver, British Columbia, Canada, July 6-10, 2008. Available online at <https://circle.ubc.ca/handle/2429/1553>.
- Goldberg, D., Guerin, G., Malinverno, A., and **Cook, A.**, (2008) Velocity Analysis of LWD and Wireline sonic data in hydrate-bearing sediments on the Cascadia Margin, *Proceedings of the 6th International Conference on Gas Hydrates*, Vancouver, British Columbia, Canada, July 6-10, 2008. Available online at <https://circle.ubc.ca/handle/2429/1619>.

Teaching at Ohio State

All courses were delivered in person unless otherwise noted.

ESC 5687: Borehole Geophysics. Upper-level majors/graduate students, taught 4x: 20 students in SP 2014, 30 students in SP 2016, 25 students in SP 2018, 20 students in SP 2020, 15 students in FA 2021. Received Teaching Award for this course in 2014. SP 2020 and FA 2021 course

- included course-based research as part of my NSF CAREER Award; the course-based research was developed and evaluated in collaboration with Prof. Ann-Marie Nuñez.
- ESC 4560: Applied Geophysics. Upper-level majors, taught 4x: 24 students in SP 2013, 24 students in SP 2015, 18 students in SP 2017, 12 students in SP 2021, 10 students in SP 2023. Course co-taught with Prof. Wendy Panero in 2013, 2015, 2017 and 2021.
- ESC/ENR 2155: Energy and Environment. Undergraduate non-majors, taught 6x: 60 students in SP 2013, 60 students in SP 2015, 60 students in SP 2016; 58 students in SP 2017, 60 students in SP 2018, 59 students in SP2019. Course co-taught with Instructor Stacey Fineran.
- ESC 1151: Natural Disasters; undergraduate non-majors, taught 8x: 45 students in SP 2012, 93 students in FA 2012, 109 students in FA 2014, 106 students in FA 2015, 106 students in FA 2017, 117 students in FA 2018; 217 students in FA 2019; 243 students in FA 2020 (online).
- ESC 8860: Graduate seminar for AAPG Imperial Barrel, taught 2x: 5 students in SP 2013, 9 students in FA 2015. 2015 section co-taught with Prof. Derek Sawyer.
- ESC 8850: Graduate seminar in Natural Gas Hydrates, taught 2x: 5 students in FA 2012, 9 students in Spring 2015.
- ESC 8870: Graduate seminar 'Grad School 101', taught 3x: 14 students in FA 2019, 17 students in FA 2021, 7 in FA 2023. I developed the Grad School 101 seminar which addresses a wide array of topics geared for first- and second-year graduate students, including: the elevator pitch, marketing, CV and resume writing, scientific writing, interviewing, budgeting and banking, library services, navigating advisor relationships, diversity in science, abstract writing & presentation skills. The goal for this course is to help graduate students break down barriers, understand unwritten rules at the beginning of graduate studies and get started on important skills they need to complete their thesis and find a job after graduation. Research shows that offering a course like this is very important for first-generation students and students that are under-represented in science.
- ESC 2000: Undergraduate seminar 'Sophomore Seminar' taught 2x: 19 students in FA 2020, 20 students in FA2023. I developed the Sophomore Seminar, with input colleagues and I taught the inaugural class in Fall 2020; the seminar is now required as part of the undergraduate sequence and is taught this year by A. Griffith. The idea for this course was to give sophomores (and some juniors) a springboard to get them thinking about career options and their senior thesis in SES before their senior year. We also hope this course will help students form a cohort in the major earlier in the degree sequence. In addition, research shows that offering a course like this is very important for first-generation students and students that are under-represented in science.

Postdoctoral Scientists Advised

7. Dr. Muhedeen Lawal. PhD from the University of Haifa, Israel. Started at Ohio State in July 2023.
6. Dr. Rachel Coyte. PhD from Duke University, Durham, North Carolina. Started at Ohio State as a postdoc in 2021 working with T.Darrah, J.Olesik and J. Moortgat. Started working with Cook in February 2023 and began her faculty position in September 2023. Dr. Coyte is now an Assistant Professor at New Mexico Tech, Socorro, New Mexico.
5. Dr. Alexey Portnov. PhD from the University of Tromso, Norway. At Ohio State as a postdoc from March 2017-December 2020. Co-advised with D. Sawyer. Dr. Portnov is now a

Research Scientist at the Instituto Andaluz de Ciencias de la Tierra, Granada, Andalusia, Spain.

4. Dr. Myles Moore. PhD from Ohio State University. A postdoc part time at Ohio State from January 2020-October 2020; position was remote. Additionally, Dr. Moore held a part time postdoctoral position at Colorado School of Mines. Now a Hydrogeologist at the United States Geological Survey (USGS) in Indianapolis, Indiana.
3. Dr. Emma Oti. PhD from Ohio State University. A postdoc at Ohio State from January 2020-March 2020. Now an Engineer at Apple in Cupertino, California.
2. Dr. Urmi Majumdar. PhD from Ohio State University. A postdoc at Ohio State from May 2018-Sept 2018. The Ohio State position was followed by a postdoc Massachusetts Institute of Technology/Woods Hole Oceanographic Institution (MIT-WHOI). Dr. Majumdar is now a data scientist at JP Morgan Chase.
1. Dr. Jess Hillman. PhD from the University of Otago, New Zealand. At Ohio State as a postdoc from March 2015- March 2016 and was co-advised with D. Sawyer. Dr. Hillman is currently a Marine Geophysicist at GNS Science, Avalon, New Zealand.

Students Advised

Doctor of Philosophy Thesis Advisor

5. Aditya Kumar, PhD Expected 2025. Arrived at Ohio State in August 2021. Advanced to candidacy in October 2023.
4. Fawz Naim, PhD Expected 2025. Arrived at Ohio State in January 2021. Advanced to candidacy in December 2022. First author on 1 published paper. Fawz was a physical property specialist on IODP Exp 400.
3. Li Wei, Ph.D. 2021. Title: Methane migration and hydrate formation in thin sand layers. First author on 2 published papers. Awards: Best Poster Presentation, 2016 Gas in Marine Sediments Conference, Tromso, Norway. Now a postdoc at Lamont-Doherty Earth Observatory.
2. Emma Oti, Ph.D. 2019. Title: Application of Nondestructive X-ray Computed Tomography (XCT) to answer Scientific Questions in Sediments and Ice. First author on 1 published paper, 1 in review. Graduate Enrichment Fellow, 2013-2014. Interned for 1 year (2014) at Apple XCT lab. Winner of AGU Outstanding Student Presentation Award (2018). Now an Engineer at Apple.
1. Urmi Majumdar, Ph.D., 2018. Title: Gas Hydrate Occurrences and Resource Estimate in the Northern Gulf of Mexico. First author on 3 published papers. Awards: IODP Petrophysics Summer School travel scholarship (\$1000), 2016; Spieker Book Award for Distinguished Senior Ph.D. Graduate Student, 2017. Completed a postdoc at Woods Hole Oceanographic Institution. Now a Data Scientist at JP Morgan Chase.

Master of Science Thesis Advisor

6. Ben Jones, M.S, 2023. Natural Gas Hydrate Exploration in the Gulf of Mexico. Now a geologist at Advanced Resources International.
5. Stuart Skopec, M.S. 2021. Classification and Description of Gas Hydrate Systems in the Northwestern Gulf of Mexico. Now a Petroleum Engineer at Battelle.
4. Ryan Heber, M.S. 2020. Evidence for Widespread, Low Saturation Gas Hydrate in the Barents and Norwegian Seas. Now a Geospatial Computing Engineer at MITRE.

3. Bennett Trotter, M.S. 2018. Pore Pressure Prediction in the Point Pleasant Formation. Co-advised with Prof. Derek Sawyer. Now a Geologist at the Ohio Department of Natural Resources.
2. Chen Yang, M.S. 2016. Title: Petrophysical and Geophysical Interpretation of a Potential Gas Hydrate Reservoir at Alaminos Canyon 810, Northern Gulf of Mexico. Co-advised with Prof. Derek Sawyer. Now a Geophysicist at China National Petroleum Corporation.
1. Brian Tost, M.S. 2013. Title: Evidence of the Absence of Gas Hydrates in the Alaminos Canyon 21B well, Diana Basin, Gulf of Mexico. ORISE Fellow at NETL following graduation. Now a Research Engineer Intern at NETL and PhD Student at Oregon State University in Mechanical Engineering.

Bachelor of Science Thesis Advisor

15. Anastasiia Krysova, B.S. 2024 (expected).
14. Saffron Martin, B.S. 2024 (expected).
13. Nolan Howell, B.S. 2022. Seismic Refraction Line Analysis of The South Oval.
12. Henry Tennant, B.S. 2022. Initial assessment of gas hydrate presence in the UK North Atlantic Margin.
11. Jacob Snyder, B.S. 2021. Where is the Tunnel? Using a Gravimeter on the Ohio State Oval.
10. Stevie Lohbeck, B.S. 2021. The Rocks of The Ohio State University's South Oval and Mirror Lake Area.
9. Mason Harris, B.S. with Honors, 2020. XCT Analysis of decreasing porosity in the Trenton Limestone of Williams County, Ohio.
8. Nikki Kinash, B.S. 2018. Recovery and lithologic analysis of sediment from Holes UT-GOM2-1-H002 and H005, in Green Canyon 955, northern Gulf of Mexico.
7. Ryan Heber, B.S. with Honors, 2017. Mineralogy of gas hydrate bearing sediment in Green Canyon Block 955, Northern Gulf of Mexico.
6. Kathryn Smart, B.S. with Honors, 2017. Modeling Well Log Responses in Hydrate-Bearing Silt.
5. Judith Straathoff, B.S. with Honors, 2017. Modeling of Resistivity Well Log Separation Due to the Presence of Methane Hydrate in Near-vertical Fractures.
4. Andrew Burchwell, B.S. 2016. Evidence for Using Nuclear Well Logs to Assess Natural Gas Hydrate Reservoirs.
3. Samyra Ismail, B.S. 2014. Association of Natural Gas Hydrate Distribution in the Northern Gulf of Mexico with Bottom Simulating Reflection Profiles.
2. Edwin Buchwalter, B.S. 2013. Physical and Geochemical Evidence of Methane Hydrate in Marine Sediments.
1. Abby Crock, B.S. 2013. Analysis of Potential Methane Hydrate Accumulations in a Block 857 Alaminos Canyon Well Site, Gulf of Mexico.

Undergraduates (not involved in senior thesis)

Mackenzie Scharenberg (worked on DOE-funded project), Lienne Sethna (SURE advisor), Joseph Lonsert (SURE advisor), Derek Kackley (SURE advisor); SURE is summer undergraduate research experience at Ohio State funded by Shell.

Reviewing of External PhD Thesis

2. Zhen Li, Formation of Sub-Permafrost Methane Hydrate Reproduced by Numerical Modeling: Insights from Large-scale Reservoir Simulator (LARS) to the Mallik Site, Canadian Arctic. Universität Potsdam, in Potsdam, Germany.
1. Muhedeen Lawal, Seismic Reflection Evidence for Seafloor Gas Migration and Seepage and their Geological Controls. University of Haifa, Israel.

External Academic Service

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| 2023 | Session Cochair. 2023 AGU Fall Meeting. |
| 2023 | National Science Foundation Panel. |
| 2022 | PhD Days at GFZ-Potsdam, three 1-on-1 mentorship pairings, July 2020. |
| 2022 | Session Cochair. 2022 AGU Fall Meeting. Preparation and abstract selection only, did not attend. OS 12C, 15A, 22B, 23A. |
| 2021 | IODP Science Evaluation Panel, January 2021 Meeting. |
| 2021 | Session Cochair. 2021 AAPG Annual Meeting and Exhibition. Preparation and abstract selection only, did not attend. |
| 2020-present | IODP Geophysics Laboratory Working Group, External Member. |
| 2020 | Session Cochair, 2020 AGU Fall Meeting. OS034. Natural Gas Hydrate Systems. Meeting was virtual and I hosted the Oral Session and the Social Session called 'Hydrate Together'. |
| 2020 | Panelist at 2020 Gordon Research Seminar on Careers and Work-Life Balance, February 2020. |
| 2019-2021 | Planning Group Member (American representative for Earth Science) for the 2021 Japanese-American-German Frontiers of Science Meeting to be held in Irvine California. The meeting is sponsored by the Japan Society for the Promotion of Science, the National Academy of Science and the Humboldt Foundation and is invitation only. |
| 2018 | Editorial Meeting for IODP Volumes 372A and 372B/375. This weeklong meeting is focused on the final editing of the IODP Proceedings Volumes. November 2018. |
| 2018 | Session Cochair, 2019 AGU Fall Meeting. OS054. Geological and Geophysical Characterization of Marine Gas Hydrate Reservoirs. San Francisco, CA. |
| 2018 | Organized and hosted GOM ² Gas Hydrate Drilling Workshop at Ohio State University; 32 people attended. September 2018. |
| 2018 | Scientific organizing committee for 14 th International Conference for Gas in Marine Sediments (GIMS), Haifa, Israel, 2018. |
| 2017 | Panelist with Rob Dunbar on Marine Geoscience Leadership Symposium Webinar on Mentoring. Hosted by Ocean Leadership, April 2017. |
| 2016 | AGU Fall Meeting Session Co-Convener and Cochair. Experiments, Modeling, and Field Studies on Gas Hydrate Formation, December 2016. |
| 2016 | Discussion Leader at Gordon Research Conference on Natural Gas Hydrate Systems, March 2016 |
| 2014 | Career Panelist at Gordon Research Seminar on Natural Gas Hydrate Systems, March 2014 |

Editing

- 2018-2022 Guest editor for AAPG Bulletin for Gas Hydrates Volumes 1&2 on GOM² drilling at Green Canyon 955.
Volume 1, Gas Hydrates in Green Canyon Block 955, deep-water Gulf of Mexico: Part I was published in September 2020:
<https://pubs.geoscienceworld.org/aapgbull/issue/104/9>
Volume 2, Gas hydrates in Green Canyon Block 955, deep-water Gulf of Mexico: Part II, Insights and Future Challenge was published in May 2022:
<https://pubs.geoscienceworld.org/aapgbull/article/106/5/937/613069>

Reviewing

Journals:

Journal of Geophysical Research Solid Earth, Geophysical Research Letters, Geology, G-cubed, Marine and Petroleum Geology, Geophysics, Geophysical Prospecting Geophysics Journal International, AAPG Bulletin, Interpretation, Reviews of Geophysics, Earth and Planetary Science Letters, Scientific Reports, New Zealand Journal of Geology and Geophysics.

Funding Agencies:

United States: National Science Foundation (Sedimentary Geology and Paleobiology; Polar Programs; Marine Geology and Geophysics), National Academy of Science Gulf Research Program, IODP Science Evaluation Panel, ACS Petroleum Research Fund.

International: UK Natural Environmental Research Council, Deutsche Forschungsgemeinschaft (German Research Council).

Service for Students and for the Public

- 2019-2020 National Geographic Expert Reviewer (Natural Gas) for material for middle school material (Grades 6-8).
- 2018 Interview, Arts and Sciences Voices of Excellence Podcast with David Staley (Episode 4). Aired October 3, 2018. Available through Apple Podcasts.
- 2017-2019 Part of the 'Shake the Shoe' Team, measuring the seismic activity of football games to engage the public and students in science. Team led by D. Sawyer (Ohio State) and includes W. Panero (Ohio State), M. Brudzinski (Miami), and J. Fox (ODNR).
- 2013-2019 Advisor for Ohio State AAPG Student Chapter.
- 2007-2010 NYC middle and high school science fair judge

Press

Columbus Dispatch Article, 'Earthquake Scientists nail down exactly how much the Horseshoe rocked during Ohio State-Michigan Game', by Marion Renault. Interviewed with Derek Sawyer and Wendy Panero, as part of the 'Shake the Shoe' Project.
NPR Morning Edition with Christopher Joyce. Interview on Natural Gas Hydrates. March 2013.

Workshops

IODP NEXT Workshop. Denver, Colorado. Participant. May 2019.

GOM² Gas Hydrate Drilling Workshop, Ohio State University. Organizer and Host. September 2018

Marine Geoscience Leadership Symposium, Consortium for Ocean Leadership. Participant. March 2013.

Catching Climate Change in Progress, Circum-Arctic Ocean Drilling Workshop. Participant. December 2011.