

Curriculum Vitae

NAME: Benjamin J. Phrampus
EMAIL: Work: benjamin.phrampus@nrlssc.navy.mil
PHONE: Work: +1 (228) 688-4899

WORK ADDRESS: Ocean Sciences Division
US Naval Research Laboratory
1005 Balch Boulevard
Stennis Space Center, MS 39529

CURRENT POSITION: Research Physicist – US Naval Research Laboratory, Stennis Space Center, MS
Grade: NP3
Division: 7300 – Ocean Sciences
Branch: 7350 – Seafloor Sciences
Section: 7352 – Geology and Geophysics

EDUCATION

Ph.D., Geophysics, Southern Methodist University, Huffington Department of Earth Sciences, Dec. 2015

Dissertation: Gas Hydrate as a Proxy for Contemporary Climate Change and Shallow Heat Flow on the US East Coast and North Slope of Alaska.

B.S., Geophysics, Baylor University, Department of Geosciences, May 2011
GPA: 3.83/4.00, *Cum Laude*

RESEARCH EXPERIENCE

Research Physicist, US Naval Research Laboratory (May 2019 to present)

American Society for Engineering Education Postdoctoral Research Fellow, US Naval Research Laboratory (Apr. 2018 to May 2019)

National Research Council Methane Hydrate Fellowship Program Postdoctoral Research Fellow, Oregon State University (Apr. 2016 to Apr. 2018)

Graduate Research Assistant, Southern Methodist University (Aug. 2011 to Dec. 2015)

Undergraduate Research Assistant, Baylor University (Aug. 2009 to May 2011)

PROFESSIONAL EXPERIENCE

Research Physicist, US Naval Research Laboratory (May 2019 to present)

Geophysical Technician, GNS New Zealand, Lower Hutt, New Zealand (Apr. 2011 to May 2011)

SEAGOING EXPERIENCE

Senior Scientist, R/V Marcus G. Langseth, Queen Charlette Fault Survey, MGL2105, Queen Charlette Fault, 2D seismic and OBS acquisition (Jul. – Aug. 2021)

Postdoctoral mentor, R/V Roger Revelle, Early Career Scientist Training, RR1718, Pacific coast, Oregon, MCS acquisition, processing, and interpretation training (Sept. – Oct. 2017)

Scientist, R/V Marcus G. Langseth, CEVICHE Project, MGL1701, Chilean Subduction Zone, 2D seismic acquisition (Jan. – Feb. 2017)

Scientist, Norseman II, Beaufort Margin Heat Flow, Beaufort Sea, Alaska, heat flow acquisition (Sept. 2016)

Scientist, R/V Roger Revelle, STINGS Expedition, RR1508, Hikurangi Margin, New Zealand, 2D seismic acquisition and heat flow acquisition (May – June 2015)

Watchstander, R/V Marcus G. Langseth, ENAM Community Seismic Experiment, MGL1408, U.S. East Coast, 2D seismic acquisition (Sept. – Oct. 2014)

Watchstander, R/V Brooks McCall, San Luis Pass Salt Dome Characterization, Gulf of Mexico, 3D P-Cable seismic acquisition (Sept. – Oct. 2013)

Watchstander, R/V Helmer Hanssen, Seismic Characterization of Vestnesa Ridge, Svalbard, 3D P-Cable seismic acquisition (June – July 2012)

FIELD EXPERIENCE

Scientist, Yellowstone Lake, WY, heat flow pad deployment and maintenance (Aug. 2016 – Sept. 2017)

Scientist and teaching assistant, Hebgan Lake, MT, shallow seismic, heat flow, and slope stability assessment (Jul. – Aug. 2015)

Scientist and teaching assistant, Kingston, Jamaica shallow seismic and slope stability assessment (Jan. 2013)

Geophysical technician, Taupo Volcanic Zone, North Island, NZ, seismic attenuation and broadband seismometer field maintenance (Mar. – April 2011)

Research assistant, GUMBO, Gulf of Mexico, TX, install and maintain broadband and Texan geophones for 2D teleseismic experiment (July 2010 – Mar. 2011)

Student, Summer of Applied Geophysical Experience, Santa Fe, NM, geophysical field course (May – July 2010)

PUBLICATIONS

Books or Book Chapters

Trehu, A. M. and **Phrampus, B. J.** (2022), Accretionary wedge tectonics and gas hydrate distribution in the Cascadia forearc, Peer Review chapter in *World Atlas of Submarine Gas Hydrate in Continental Margins*.

Peer-reviewed articles

- Lee, T. R., **Phrampus, B. J.**, Skarke, A. D., and Wood, W. T., (2022), Constraints on global seafloor biogenic methane production from deterministic and machine learning modeling, *Global Biogeochemical Cycles*.
- Restrepo, G., Wood, W. T., Graw, J. H., and **Phrampus, B. J.** (2021), A model of seafloor sediment accumulation compared to fluvial sediment flux, *Marine Geology*.
- Eymold, W. K., Frederick, J. M., Nole, M., **Phrampus, B. J.**, and Wood, W. T. (2021), Prediction of Gas Hydrate Formation at Blake Ridge Using Machine Learning and Probabilistic Reservoir Simulation, *Geochemistry, Geophysics, Geosystems*, 22 (4), e2020GC009574.
- Graw, J. H., Wood, W. T., and **Phrampus, B. J.**, (2021), Predicting global marine sediment density using the random forest regressor machine learning algorithm. *Journal of Geophysical Research: Solid Earth*, 126 (1), e2020JB020135.
- Merle, S. G., Embley, R. W., Johnson, H. P., Lau, T. K., **Phrampus, B. J.**, Raineault, N., A., and Gee, L. J., (2021), Distribution of Methane Plumes on Cascadia Margin and Implications for the Landward Limit of Methane Hydrate Stability, *Frontiers in Earth Science*, 9, 104.
- Restrepo, G., Wood, W. T., and **Phrampus, B. J.**, (2020), Oceanic sediment accumulation rates predicted via machine learning algorithm: towards sediment characterization on a global scale, *Geo-Marine Letters*, 40 (5), 755-763.
- Lee, T. R., **Phrampus, B. J.**, Obelcz, J., Wood, W. T., and Skarke, A. (2020), Global marine isochore estimates using machine learning, *Geophysical Research Letters*, 47 (18), e2020GL088726.
- Obelcz, J., Wood, W. T., **Phrampus, B. J.**, and Lee, T. R. (2020), Machine learning augmented time-lapse bathymetric surveys: A case study from the Mississippi river delta front, *Geophysical Research Letters*, 47 (10), e2020GL087857.
- Hornbach, M. J., Harris, R. N., and **Phrampus, B. J.** (2020), Heat Flow on the US Beaufort Margin, Arctic Ocean: Implications for Ocean Warming, Methane Hydrate Stability, and Regional Tectonics, *Geochemistry, Geophysics, Geosystems*, 21 (5), e2020GC008933.
- Phrampus, B. J.**, Lee, T. R., and Wood, W. T. (2019), A global probabilistic prediction of cold seeps and associated SEAFloor FLuid Expulsion Anomalies (SEAFLEAs), *Geochemistry, Geophysics, Geosystems*, 21 (1), e2019GC008747.
- Lenz, B., Sawyer, D., **Phrampus, B. J.**, Davenport, K., and Long, A. (2019), Seismic Imaging of Seafloor Deformation Induced by Impact from Large Submarine Landslide Blocks, Offshore Oregon, *Geosciences*, 9 (1), 10.
- Lee, T. R., Wood, W. T., and **Phrampus, B. J.** (2019), A Machine Learning (kNN) Approach to Predicting Global Seafloor Total Organic Carbon, *Global Biogeochemical Cycles*, 33 (1), 37-46.
- Antriasian, A., Harris, R. N., Trehu, A. M., Henrys, A., **Phrampus, B. J.**, Lauer, R., Gorman, A. R., Pecher, I. A., and Barker, D., (2018), Thermal Regime of the Hikurangi Margin, New Zealand, *Geophysical Journal International*, 216 (2), 1177-1190.
- Phrampus, B. J.**, Harris, R. N., and Trehu, A. M., (2017), Heat Flow Bounds over the Cascadia Margin Derived from Bottom Simulating Reflectors and Implications

for Thermal Models of Subduction, *Geochemistry, Geophysics, Geosystems*, 18, 2017GC07077.

Vadakkepuliyambatta, S., Hornbach, M. J., Bünz, S. and **Phrampus, B. J.** (2015), Controls on gas hydrate system evolution in a region of active fluid flow in the SW Barents Sea, *Marine and Petroleum Geology*.

Phrampus, B. J., M. J. Hornbach, C. D. Ruppel, and P. E. Hart (2014), Widespread Gas Hydrate Instability on the Upper US Beaufort Margin, *Journal of Geophysical Research: Solid Earth*, 119, 2014JB011290.

Phrampus, B. J., and M. J. Hornbach (2012), Recent changes to the Gulf Stream causing widespread gas hydrate destabilization, *Nature*, 490, 527 - 530, nature11528.

Manuscripts in review

Eymold, W. K., Frederick, J. M., Nole, M., **Phrampus, B. J.**, Lee, T. R., and Wood, W. T. (in review), K-means Clustering for Efficient Predictions of Global Occurrence of Gas Hydrate and Free Gas, *Earth and Space Science*.

Graw, J. H., Wood, W. T., and **Phrampus, B. J.**, (in review), An updated oceanic heat flow analysis with uncertainties using geospatial machine learning and conformal predictions, *Geochemistry, Geophysics, Geosystems*.

Manuscripts in preparation

Duff, P. D., Wood, W. T., Slatos, R. W., **Phrampus, B. J.**, (in prep), Evaluating Data-driven Methods for Predicting Marine Geomagnetism from Disparate, Sparse Geophysical Data, to be submitted to *Journal of Geophysical Research Solid Earth*.

Lee, T. R., **Phrampus, B. J.**, and Obelcz, J., (in prep), The necessary optimization of data and methods: marine geosciences in the big data era (invited), to be submitted to *Frontiers*.

Phrampus, B. J., and Wood, W. T. (in prep), 15 arc sec Global Prediction of Bathymetry using Deep Neural Networks, to be submitted to *Nature*.

Phrampus, B. J., Wood, W. T., Lee, T. R., and Obelcz, J., (in prep), Geospatial Machine Learning Methods, to be submitted to *Geochemistry, Geophysics, Geosystems*.

ABSTRACTS/PRESENTATIONS AT CONFERENCES

Phrampus, B. J., and Wood, W. T., 15 arc sec Global Prediction of Bathymetry Utilizing Deep Neural Networks, American Geophysical Union Fall Meeting oral presentation, Dec. 2021.

Adedeji, O., Worthington, L., Roland, E., Walton, M., Nedimovic, M., **Phrampus, B. J.**, Sun, T., Bostock, M., Wang, K., Lintern, G., Schaeffer, A., Brothers, D., Miller, N., Adedeji, O., Brandl, C., Garza, L., Pszczola, K., Gurun, P., Nolt-Caraway, S., Crustal Deformation and Fault Zone Architecture Along the Queen Charlotte Fault, Offshore Southeast Alaska, Using Long-Offset Multichannel Seismic Data from the Transform Obliquity on the Queen Charlotte fault and Earthquake Study (TOQUES), American Geophysical Union Fall Meeting oral presentation, Dec. 2021.

Brandl, C., Worthington, L., Roland, E., Walton, M., Nedimovic, M., **Phrampus, B. J.**, Sun, T., Bostock, M., Wang, K., Lintern, G., Schaeffer, A., Brothers, D., Miller,

- N., Adedeji, O., Garza, L., Pszczola, K., Gurun, P., Nolt-Caraway, S., New Insights on Strain-Partitioning Along the Southern Queen Charlotte Fault, Offshore Haida Gwaii, Canada, from 2021 Multi-Channel Seismic Reflection Imaging, American Geophysical Union Fall Meeting poster presentation, Dec. 2021.
- Eymold, W. K., Frederick, J., Nole, M., **Phrampus, B. J.**, Lee, T. R., and Wood, W. T., Efficient Predictions of Global Free Gas and Gas Hydrate Formation using K-means Clustering, American Geophysical Union Fall Meeting poster presentation, Dec. 2021.
- Graw, J., Wood, W. T., and **Phrampus, B. J.**, An updated oceanic heat flow analysis with associated uncertainties using an inductive conformal prediction, American Geophysical Union Fall Meeting poster presentation, Dec. 2021.
- Lee, T. R., Wood, W. T., Phrampus, B. J., Skarke, A., Global carbon and methane hydrate inventories in marine sediments using machine learning constraints, American Geophysical Union Fall Meeting oral presentation, Dec. 2021.
- Walton, M., **Phrampus, B. J.**, Worthington, L., Roland, E., Curtis, K., Nedimovic, M., and Sun, T., Observations of High-frequency Energy from the 2021 M8. 2 Chignik Earthquake on a Hydrophone Streamer, American Geophysical Union Fall Meeting poster presentation, Dec. 2021.
- Worthington, L., Roland, E., Walton, M., Nedimovic, M., **Phrampus, B. J.**, Sun, T., Bostock, M., Wang, K., Lintern, G., Schaeffer, A., Brothers, D., Miller, N., Adedeji, O., Brandl, C., Garza, L., Pszczola, K., Gurun, P., Nolt-Caraway, S., Insights into strain-partitioning along a continental-oceanic transform from comprehensive marine seismic imaging of the Queen Charlotte Fault, offshore western Canada and southeast Alaska, American Geophysical Union Fall Meeting oral presentation, Dec. 2021.
- Phrampus, B. J.** and Wood, W. T., Stochastic and Machine Learning Predictions of Bathymetry, American Geophysical Union Fall Meeting poster presentation, Dec. 2020.
- Daigle, H., Broten, M., **Phrampus, B. J.**, Wood, W. T., Nole, M., Frederick, J., and Lapari, A. S., Predicting gas and hydrate presence on the US Atlantic margin using geospatial machine learning, American Geophysical Union Fall Meeting poster presentation, Dec. 2020.
- Eymold, W. K., Frederick, J., Nole, M., **Phrampus, B. J.**, and Wood, W. T., Probabilistic Predictions of Gas Hydrate Formation near Blake Ridge using Dakota and PFLOTRAN, American Geophysical Union Fall Meeting poster presentation, Dec. 2020.
- Frederick, J., Eymold, W. K., Nole, M., **Phrampus, B. J.**, Wood, W. T., and Daigle, H., Probabilistic Predictions of Offshore Gas Hydrate and Submarine Permafrost Distribution Along the Alaskan North Slope, American Geophysical Union Fall Meeting poster presentation, Dec. 2020.
- Graw, J. H., Wood, W. T., and **Phrampus, B. J.**, Improving Prediction Capability in Machine Learning via Spatial Wavenumber Analyses of Observational and Training Datasets, American Geophysical Union Fall Meeting poster presentation, Dec. 2020.

- Lee, T. R., Luciano, A., **Phrampus, B. J.**, Obelcz, J., Wood, W. T., and Skarke, A. D., An Updated Global Prediction of Marine Unit Thicknesses for Present to Middle Miocene Sediments Using Ocean Drilling Program Data, American Geophysical Union Fall Meeting poster presentation, Dec. 2020.
- Lee, T. R., **Phrampus, B. J.**, Wood, W. T., and Skarke, A. D., A new estimate of carbon sequestered within the global methane hydrate stability zone using machine-learning predicted inputs, American Geophysical Union Fall Meeting poster presentation, Dec. 2020.
- Obelcz, J., Wood, W. T., **Phrampus, B. J.**, Sawyer, D., and Lee, T. R., Global analysis of relationship between continental margin submarine landslide scarring and sediment shear strength, American Geophysical Union Fall Meeting poster presentation, Dec. 2020.
- Restrepo, G., Wood, W. T., Graw, J. H., and **Phrampus, B. J.**, Comparing a Machine-Learning Based Model of Benthic, Marine Mass Accumulation with Fluvial Sediment Flux into the Global Oceans, American Geophysical Union Fall Meeting poster presentation, Dec. 2020.
- Wood, W. T., **Phrampus, B. J.**, Lee, T. R., Obelcz, J., and Karthic, V., Predicting Global Ocean Sediment Thickness, American Geophysical Union Fall Meeting poster presentation, Dec. 2020.
- Restrepo, G., Wood, W. T., and **Phrampus, B. J.**, Coastal to Abyssal Vertical Sediment Accumulation Rates Predicted via Machine-Learning: Towards Sediment Characterization on a Global Scale, European Geophysical Union Meeting, Apr. 2020.
- Phrampus, B. J.** and Wood, W. T., Utilizing Machine and Deep Learning to Predict Bathymetry, American Geophysical Union Fall Meeting poster presentation, Dec. 2019.
- Lee, T. R., Wood, W. T., Skarke, A. D., **Phrampus, B. J.**, and Obelcz, J., Global machine learning predictions of sediment unit thickness for present to middle Miocene using Deep Sea Drilling Project data, American Geophysical Union Fall Meeting poster presentation, Dec. 2019.
- Obelcz, J., Wood, W. T., **Phrampus, B. J.**, and Lee, T. R., Predicting submarine slope instability along Arctic continental margins, American Geophysical Union Fall Meeting oral presentation, Dec. 2019.
- Obelcz, J., Wood, W. T., **Phrampus, B. J.**, and Lee, T. R., Machine learning predictions of submarine slope instability across multiple spatial and temporal scales, American Geophysical Union Fall Meeting poster presentation, Dec. 2019.
- Wood, W. T., **Phrampus, B. J.**, Lee, T. R., Obelcz, J., and Karthic, V., Predicting Global Ocean Sediment Thickness, American Geophysical Union Fall Meeting poster presentation, Dec. 2019.
- Wood, W. T., Yu, J., **Phrampus, B. J.**, A Re-evaluation of Tectonic Plate Boundaries Based on Recent Satellite and Earthquake Data, American Geophysical Union Fall Meeting poster presentation, Dec. 2019.
- Phrampus, B. J.**, Wood, W. T., Lee, T. R., and Obelcz, J., Utilizing Generative Models to Predict High-Resolution Bathymetry, European Geophysical Union Meeting, Apr. 2019.

- Lee, T. R., Wood, W. T., **Phrampus, B. J.**, and Obelcz, J., Predicting Sediment Property Vertical Profiles on the Mid-Atlantic Ridge Using Machine Learning, European Geophysical Union Meeting, Apr. 2019.
- Wood, W. T., **Phrampus, B. J.**, Lee, T. R., and Obelcz, J., Machine learning prediction of sediment thickness on the Northern Mid-Atlantic Ridge, European Geophysical Union Meeting, Apr. 2019.
- Phrampus, B. J.**, Wood, W. T., Lee, T. R., and Yu, J., Forecasting seafloor fluid expulsion using sparse observations of seafloor fluid expulsion anomalies (SEAFLEAs) and machine learning, American Geophysical Union Fall Meeting oral presentation, Dec. 2018.
- Wood, W. T., **Phrampus, B. J.**, Lee, T. R., and Obelcz, J., Development of a Global Predictive Seabed Model (GPSM), American Geophysical Union Fall Meeting poster presentation, Dec. 2018.
- Lee, T. R., Wood, W. T., **Phrampus, B. J.**, and Obelcz, J., Global modeling of seafloor methanogenesis using machine-learning predicted inputs to well-known deterministic models, American Geophysical Union Fall Meeting poster presentation, Dec. 2018.
- Hornbach, M. J., **Phrampus, B. J.**, and Harris, R. N., New Heat Flow Measurements on the U.S. Beaufort Margin: Implications for Fluid Flow and Methane Hydrate Stability in the Western Arctic. (Invited), American Geophysical Union Fall Meeting poster presentation, Dec. 2018.
- Obelcz, J., Wood, W. T., **Phrampus, B. J.**, and Lee, T. R., Using “old” dogs for new tricks: Exploratory machine learning to predict submarine slope instability, American Geophysical Union Fall Meeting poster presentation, Dec. 2018.
- Phrampus, B. J.** and Lee, T. R., Collaboration to Compile Open-Source Sites of Seafloor Fluid Expulsion Anomalies, American Geophysical Union Fall Meeting townhall presentation, Dec. 2018.
- Phrampus, B. J.**, Harris, R. N., and Trehu, A. M., Along-Strike Analysis of Contemporary Ocean Temperature Change on the Cascadia Margin and Implications for Upper Slope Hydrate Instability, Gordon Research Conference – Natural Gas Hydrate Systems poster, Mar. 2018.
- Phrampus, B. J.**, Harris, R. N., Trehu, A. M., Embley, R. W., and Merle S. G., Along-Strike Analysis of Contemporary Ocean Temperature Change on the Cascadia Margin and Implications for Upper Slope Hydrate Instability, American Geophysical Union Ocean Sciences Meeting poster presentation, Feb. 2018.
- Phrampus, B. J.**, Harris, R. N., Trehu, A. M., Embley, R. W., and Merle S. G., Along-Strike Analysis of Contemporary Ocean Temperature Change on the Cascadia Margin and Implications for Upper Slope Hydrate Instability, American Geophysical Union Fall Meeting poster presentation, Dec. 2017.
- Phrampus, B. J.**, Harris, R. N., and Trehu, A. M., Along-strike variation in gas hydrate distribution and instability due to external forcing on the Cascadia margin, International Conference on Gas Hydrates 9 oral presentation, June 2017.
- Phrampus, B. J.**, Harris, R. N., and Trehu, A. M., Along-strike variation in gas hydrate and re-equilibration in response to external forcing on the Cascadia margin, American Geophysical Union Fall Meeting poster presentation, Dec. 2016.

- Phrampus, B. J.**, Gas Hydrate as a Proxy for Contemporary Climate Change and Shallow Heat Flow on the US East Coast and North Slope of Alaska. PhD Thesis Defense. Dec. 2015.
- Antriasian, A. M., Harris, R. N., Trehu, A. M., Henrys, S. A., Gorman, A. R., Lauer, R. M., Phrampus, B. J., Colella, H., Baker, D., and Rocco N., Marine Heat Flow Measurements of the Northern and Southern Hikurangi Margin, New Zealand, American Geophysical Union Fall Meeting poster presentation, Dec. 2015.
- Phrampus, B. J.**, and Hornbach, M. J., US East Coast Passive Margin Hydrate, Heat Flow, and Thermal History: Implications for Hydrocarbon Production, SMU Research Day poster, Feb. 2015.
- Phrampus, B. J.**, Hornbach, M. J., Ruppel, C. D., Hart, P. E., Widespread Gas Hydrate Instability on the Upper US Beaufort Margin. Gordon Research Conference – Natural Gas Hydrate Systems poster, Mar. 2014.
- Phrampus, B. J.**, Hornbach, M. J., Ruppel, C. D., Hart, P. E., Widespread Gas Hydrate Instability on the Upper US Beaufort Margin. Gordon Research Seminar – Natural Gas Hydrate Systems oral presentation, Mar. 2014.
- Phrampus, B. J.**, Hornbach, M. J., Ruppel, C. D., Hart, P. E., Widespread Gas Hydrate Instability on the Upper US Beaufort Margin, SMU Research Day poster, Feb. 2014.
- Phrampus, B. J.**, Hornbach, M. J., Ruppel, C. D., Hart, P. E., Alaskan Beaufort Sea Heat Flow and Ocean Temperature Analysis: Implications for Stability of Climate-Sensitive Continental Slope Gas Hydrate, American Geophysical Union Fall Meeting oral presentation, Dec. 2013.
- Phrampus, B. J.**, Hornbach, M. J., Ruppel, C. D., Hart, P. E., Alaskan Beaufort Sea Heat Flow and Ocean Temperature Analysis: Implications for Stability of Climate-Sensitive Continental Slope Gas Hydrate, PERGAMON Final Symposium oral presentation, Nov. 2013.
- McDonald, R., Wright, V., Hornbach, M. J., **Phrampus, B. J.**, et al., New insights into geohazard risks in Jamaica, Haiti, and the Dominican Republic: A compendium of recent Geoscientists without Borders results, SEG Technical Program Expanded Abstracts, Sept. 2013.
- Phrampus, B. J.** and Hornbach, M. J., Recent changes to the Gulf Stream causing widespread gas hydrate destabilization, American Geophysical Union Fall Meeting oral presentation, Dec. 2012.
- Phrampus, B. J.** and Hornbach, M. J., Recent changes to the Gulf Stream causing widespread gas hydrate destabilization, Invited SMU oral presentation, Sept. 2012.
- Hornbach, M. J., **Phrampus, B. J.**, Ruppel, C. D., Hart, P. E., The role of ocean circulation on methane hydrate stability and margin evolution, American Geophysical Union oral presentation, Dec. 2012.
- Bannister, S. C., **Phrampus, B. J.**, et al., Passive-Seismic and MT Imaging of the Deep Geothermal Resource beneath Taupo Volcanic Zone, New Zealand, American Geophysical Union poster, Dec. 2011.
- Biagini, B., **Phrampus, B. J.**, et al., Geophysical Evaluation by the SAGE Group of a Newly Discovered Geothermal Prospect near Santa Fe, New Mexico, GRC poster, Oct. 2011.

Phrampus, B. J., et al., Geothermal Evaluation of the Central Rio Grande Rift in New Mexico, NREL final oral presentation, July 2011.

Phrampus, B. J. and Pulliam, J., Analysis of Broadband Seismic Station Coverage for a Seismic Survey Across the Texas Gulf Coast, URSA Scholars Week poster, Apr. 2011.

Baldrige, W. S., **Phrampus, B. J.**, et al., Seismic Investigations of an Accommodation zone in the Northern Rio Grande Rift, New Mexico, USA, American Geophysical Union poster, Dec. 2010.

PROFESSIONAL AFFILIATIONS

American Geophysical Union (since 2010)

American Association of Petroleum Geologists (since 2014)

Society of Exploration Geophysicists (since 2014)

SELECT HONORS AND REWARDS

Alan Berman Research Publication Award for best published technical writing by a post doc (NRL 2021)

Alan Berman Research Publication Award for best published technical writing in Ocean Sciences Division (NRL 2019)

Jerome and Isabella Karle Distinguished Scholar Fellowship (NRL 2019)

American Society for Engineering Education Postdoctoral Research Fellow (NRL 2018)

National Research Council Postdoctoral Research Fellow (OSU 2016-2017)

Best Student Poster, 3rd place, AAPG/SEG Student Expo, Fall 2014 (SMU 2014)

Dean's Departmental Award in Huffington Department of Earth Sciences (SMU 2014)

R. T. Hill Award for Academic Excellence (Baylor Univ. 2011)

Presidential Scholarship Awardee (Baylor Univ. 2011)

Lula H. Pace Scholarship (Baylor Univ. 2008-2011)

Mayerhoff Fellowship (Baylor Univ. 2008-2011)