## **JULIA S. REECE**

Assistant Professor

Department of Geology and Geophysics, Texas A&M University

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#### RESEARCH STATEMENT

My research interests include the mechanics and transport properties of mudrocks, subsurface pressures/ stresses, submarine slope failures, physical and chemical diagenesis as well as unconventional shale gas reservoirs. I use field samples and data and employ a suite of laboratory techniques including sedimentological and geotechnical experimentation (grain size, Atterberg Limits, uniaxial consolidation) and micro-scale imaging techniques (petrographic and scanning electron microscopy). Research areas include the Midland Basin (Spraberry and Wolfcamp Formations), Gulf of Mexico, Cascadia, and Nankai Trough offshore Japan. I am currently expanding my research interests and collaborations with other groups around campus. Among those is the Extraterrestrial Engineering and Construction Research (EXTEC) initiative, which is a partnership between NASA, academia, industry, and labs and facilities in the TAMU Colleges of Engineering, Architecture, and Geosciences.

#### **EDUCATION**

2011	<b>Ph.D. Geosciences</b> , The University of Texas at Austin
2006	<b>Diplom (M.S.) Geosciences</b> , University of Bremen, Bremen, Germany
2004	B.S. Geosciences, University of Bremen, Bremen, Germany

## **ACADEMIC APPOINTMENTS**

2014 – present	Assistant Professor, Dept. of Geology and Geophysics, Texas A&M University	
2013 - 2014	Postdoctoral Scholar, Dept. of Geophysics, Stanford University	
2012 - 2013	Postdoctoral Fellow, Bureau of Economic Geology, The University of Texas at Austin	
2006 - 2011	Graduate Research and Teaching Assistant, Jackson School of Geosciences, The	
	University of Texas at Austin	
2007	Summer Intern, Shell International Exploration and Production, Inc., Houston, TX	
2004 - 2006	Graduate Student Assistant, Department of Geosciences, University of Bremen	
2001 - 2004	Undergraduate Student Assistant, Department of Geosciences, University of Bremen	

#### **AWARDS & FELLOWSHIPS**

2020 - 2025	NSF CAREER Award
2019 - 2020	TAMU Montague - Center for Teaching Excellence Scholar (\$6,500)
2018 - 2019	IODP Ocean Discovery Lecturer
2012	Author Achievement Award, Bureau of Economic Geology, UT Austin
2011	Best JSG Student Paper Award, UT Austin, Dept. of Geological Science
2011	Best Ph.D. technical talk, UT Austin, Dept. of Geological Science
2011	Ewing/Worzel Fellowship, UT Institute for Geophysics

2010	AGU Outstanding Student Paper Award (AGU Fall Meeting)
2010 - 2011	IODP Schlanger Ocean Drilling Fellowship, Consortium for Ocean Leadership (\$28,000)
2010	Outstanding Teaching Assistant Award, UT Austin, Dept. of Geological Science
2009	Hess Fellowship
2008	Ewing/Worzel Fellowship, The University of Texas at Austin Institute for Geophysics
2008	Chevron Excellence Award
2008	Ewing/Worzel Fellowship, The University of Texas at Austin Institute for Geophysics
2007	Chevron Excellence Award
2007	ConocoPhillips Distinguished GeoFluids Fellowship

# PROFESSIONAL AFFILIATIONS

2014 – present	Geological Society of America (GSA)
2013 - 2014	American Rock Mechanics Association (ARMA)
2011 - 2012	European Geosciences Union (EGU)
2010 - 2011	European Association of Geoscientists and Engineers (EAGE)
2005 – present	American Geophysical Union (AGU)

# RESEARCH GRANT HISTORY

# **Federal Funding**

<b>Funded</b>	
04/2022 - 08/2022	Full proposal for multidisciplinary IODP investigations along a crustal flow-line across the western flank of the southern Mid-Atlantic Ridge: The South Atlantic Transect (853-Full2), NSF, International Ocean Discovery Program (IODP): Principal Lead Proponent R. Coggon (Univ. of Southampton), Data Lead Proponent R. Reece (TAMU), Proponents G. Christeson (Univ. of Texas Inst. for Geophysics), D. Teagle (Univ. of Southampton), B. K. Reese (TAMU Corpus Christi), J. Sylvan (TAMU), M. Leckie (Univ. of Massachusetts), N. Hayman (Univ. of Texas Inst. for Geophysics), J. Zachos (Univ. of Calif. Santa Cruz), B. Briggs (Univ. of Alaska Anchorage), M. Huber (Univ. of New Hampshire), J. Reece (TAMU), S. Rausch (Univ. of Bremen), J. Kirkpatrick (Univ. of Rhode Island), M. Harris (Univ. of Plymouth), D. Thomas (TAMU), M. Katz (Rensselaer Polytechnic Inst.), C. Lowery (Univ. of Texas Inst. for Geophysics), C. Heil (Univ. of Rhode Island), and W. Gilhooly (Indiana Univ. Purdue Univ.). No funding requested. Submitted 10/03/2016. [IODP Expeditions 390 and 393 scheduled for April-August 2022].
06/2020 – 05/2025	CAREER: Microfossils as Drivers for Submarine Landslides?, NSF: P.I. J. Reece (TAMU). \$526,054. Submitted 07/19/2019.
09/2015 - 08/2019	Effects of microbial activity on mechanical and transport properties of mudstones, American Chemical Society - Petroleum Research Fund - Doctoral New Investigator: P.I. <b>J. Reece</b> (TAMU). \$110,000. Submitted 09/01/2014.

09/2010 - 08/2011

Resedimentation of Nankai mudstones to illuminate lithologic control on permeability and compressibility, NSF, Consortium for Ocean Leadership, Schlanger Ocean Drilling Fellowship Award: P.I. **J. Schneider** (Univ. of Texas), Ph.D. Supervisor P. Flemings (Univ. of Texas). \$28,000. Submitted 11/13/2009.

#### **Declined**

09/2017 - 08/2020

Collaborative Research: The effect of earthquake energy on consolidation and shear strength of continental slope sediments: Testing the 'seismic strengthening' hypothesis, NSF: P.I. D. Sawyer (Ohio State Univ.), Co-P.I. **J. Reece** (TAMU). \$440,886 total; \$245,604 (TAMU), \$195,282 (Ohio State Univ.). Submitted 08/15/2016.

**TBD** 

Neogene to Quaternary climate, sedimentation, and ocean productivity along the NW African continental margin (933-Full2), NSF, International Ocean Discovery Program (IODP): Principal Lead Proponent T. Bickert (Univ. of Bremen), Data Lead Proponent S. Krastel (Univ. of Kiel), Proponents I. Bouimetarhan (Univ. of Bremen), A. J. Crocker (Univ. of Southampton), P. deMenocal (Columbia Univ.), L. Dupont (Univ. of Bremen), A. Georgiopoulou (Univ. of Brighton), T. D. Herbert (Brown Univ.), A. N. Meckler (Univ. of Bergen), S. Mulitza (Univ. of Bremen), J. Reece (TAMU), O. Romero (Univ. of Bremen), E. Schefuß (Univ. of Bremen), T. Schwenk (Univ. of Bremen), P. J. Talling (Univ. of Durham), M. Urlaub (GEOMAR), T. Westerhold (Univ. of Bremen), P. A. Wilson (Univ. of Southampton). No funding requested. Submitted 03/31/2019. [This proposal followed submissions of 933-Full and 933-Pre proposals.]

TBD

The Role of Pressure and Temperature in Retrogressive Landslides in the Western North Atlantic (930-Full), NSF, International Ocean Discovery Program (IODP): Principal Lead Proponent D. Sawyer (Ohio State Univ.), Data Lead Proponent J. Hill (USGS), Proponents R. Colwell (Oregon State Univ.), A. Cook (Ohio State Univ.), W. Fortin (Columbia Univ.), M. Hornbach (Southern Methodist Univ.), S. Klasek (Oregon State Univ.), N. Miller (USGS), M. Nikolinakou (Univ. of Texas), A. Portnov (Ohio State Univ.), J. Reece (TAMU), J. Schnyder (Univ. of Miami), N. Slowey (TAMU), B. Phrampus (Oregon State Univ.), J. Gibson (Columbia Univ.), C. Jackson (Imperial College London), J. Chaytor (USGS). No funding requested. Submitted 04/02/2018.

## **Texas A&M Research Funding**

#### **Funded**

01/2020 - 12/2021

Geomaterial characterization of lunar simulants with agglutinate particles, Texas A&M Triads for Transformation Grant: P.I. **J. Reece** (TAMU), Co-P.I.s B. Birgisson (TAMU), Y. Deng (TAMU). \$32,000 total. Submitted 12/06/2019.

#### **Declined**

08/2019 - 07/2022

Environmental disturbance and ecological response on the Texas coast: Building resilience via lessons from the past (Full proposal), Texas A&M X-Grant Round 2: P.I. C. Belanger (TAMU), Co-P.I.s P. van Hengstum (TAMU), T. Dellapenna (TAMU), Y. Zhang (TAMU), H. Thakar (TAMU), D. Retchless (TAMU), A. Armitage (TAMU), R.

Eytan (TAMU), E. Grossman (TAMU), K. Kaiser (TAMU), F. Marcantonio (TAMU), N. Perez (TAMU), A. Quigg (TAMU), **J. Reece** (TAMU), D. Roelke (TAMU), A. Ross (TAMU), C. Thompson (TAMU). \$1,500,000 total; \$16,526 (Reece). Submitted 05/06/2019. [This proposal followed submissions and reviews of one-pager and pre-proposal.]

08/2018 - 07/2020

The Future of Texas: Building future resiliency by diagnosing the drivers and recurrence of Hurricanes, Hypoxia, and Hydroclimate (superfloods vs. megadroughts) over the last 3000 years (one-pager), Texas A&M X-Grant Round 1: P.I. P. van Hengstum (TAMUG), Co-P.I.s T. Dellapenna (TAMUG), R. Eytan (TAMUG), E. Grossman (TAMU), C. Belanger (TAMU), N. Perez (TAMU), J. Reece (TAMU), F. Marcantonio (TAMU), Y. Zhang (TAMU), D. Roelke (TAMU). \$ TBD. Submitted 04/02/2018. [This proposal followed submission and review of pre-proposal.]

TAMU Montague – Center for Teaching Excellence Scholar, P.I. J. Reece, \$6,500.

# **Texas A&M Teaching Funding**

Fall 2016	Understanding mechanical behavior of mudrock mixtures; funding provided to enhance
	491 undergraduate research course for Melissa Altobelli and Travis Shackleton, TAMU
	College of Geosciences, High Impact Learning Experiences (HILE) for Undergraduate
	Research, P.I. J. Reece, \$1200

Fall 2016

2019 - 2020

Travel grant for Melissa Altobelli to attend and present at the American Geophysical Union (AGU) Fall Meeting in San Francisco in December 2016, TAMU College of Geosciences, High Impact Learning Experiences (HILE) for Undergraduate Research, P.I. **J. Reece**, \$600

Spring 2016

Heterogeneities in mudstones, TAMU College of Geosciences, High Impact Learning Experiences (HILE) for Undergraduate Research, P.I. J. Reece, \$600

Spring 2016

Relationship between porosity, sorting, and stress in IODP cores, TAMU College of Geosciences, High Impact Learning Experiences (HILE) for Undergraduate Research, P.I. **J. Reece**, \$600

## **PUBLICATIONS**

† graduate student advisee ResearcherID: H-8743-2012 Google Scholar H-index: 10; Citations: 387

#### **Published or Submitted**

- [16] **Reece, J.S.** (submitted). The impact of grain size on the hydromechanical behavior of mudstones, submitted for publication in *Geochemistry, Geophysics, Geosystems*.
- [15] <sup>†</sup>Mills, N.T., **Reece, J.S.**, Tice, M.M. (in revision). Clay minerals modulate early carbonate diagenesis, submitted for publication in *Geology*.
- [14] 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*, *113*, doi:10.1016./j.marpetgeo.2019.104155.

- [13] Daigle, H., **Reece, J.S.**, Flemings, P.B. (2019). Evolution of the percolation threshold in muds and mudrocks during burial, *Geophysical Research Letters*, 46, doi:10.1029/2019GL083723.
- [12] Casey, B., Reece, J.S., Germaine, J.T. (2019). One-Dimensional Normal Compression Laws for Resedimented Mudrocks, *Marine and Petroleum Geology*, 103, 397-403, doi:10.1016/j.marpetgeo.2019.02.023.
- [11] Wu, W., **Reece, J.S.**, Gensterblum, Y., and Zoback, M.D. (2017). Permeability evolution of slowly slipping faults in shale reservoirs, *Geophysical Research Letters*, 44, doi:10.1002/2017GL075506.
- [10] Flemings, P.B., Reece, J.S., Ditkof, J., Atkins, C.C., Sawyer, D.E. (2015). Data Report: Particle Size Analysis of Sediments in the Nankai Trough, IODP Expedition 319 Hole C009A, *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.
- [9] Daigle, H. and **Reece, J.S.** (2015). Permeability of two-component granular materials, *Transport in Porous Media*, Vol. 106, p. 523-544, doi:10.1007/s11242-014-0412-6.
- [8] Casey, B., Germaine, J.T., Flemings, P.B., **Reece, J.S.**, Gao, B., and Betts, W. (2013). Liquid limit as a predictor of mudrock permeability, *Marine and Petroleum Geology*, Vol. 44, p. 256-263, doi:10.1016/j.marpetgeo.2013.04.008.
- [7] **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.
- [6] **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*, 117, B12102, doi:10.1029/2012JB009438.
- [5] Day-Stirrat, R.J., Schleicher, A.M., Schneider, J., Flemings, P.B., Germaine, J.T., van der Pluijm, B.A. (2011). Preferred orientation of phyllosilicates: Effects of composition and stress on resedimented mudstone microfabrics, *Journal of Structural Geology*, Vol. 33, No. 9, p. 1347-1358, doi:10.1016/j.jsg.2011.06.007.
- [4] **Schneider, J.**, Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2011). Insights into pore-scale controls on mudstone permeability through resedimentation experiments, *Geology*, Vol. 39, No. 11, p. 1011-1014, doi:10.1130/G32475.1.
- [3] **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*, 114, B05102, doi:10.1029/2008JB005922.
- [2] Winkelmann, D., Geissler, W., **Schneider, J.**, Stein, R. (2008). Dynamics and timing of the Hinlopen/Yermak Megaslide north of Spitsbergen, Arctic Ocean, *Marine Geology*, 250, 34-50, doi:10.1016/j.margeo.2007.11.013.
- [1] Dugan, B., Flemings, P.B., Urgeles, R., Sawyer, D., Iturrino, G.J., Moore, J.C., **Schneider, J.** (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, *Proceedings 2007 Offshore Technology Conference*: Paper OTC 18704.

#### In preparation

- [19] <sup>†</sup>Eakin, A.L., **Reece, J.S.**, Milliken, K.L., Locklair, R., Montgomery, P. (in prep.). Chemostratigraphic facies as indicators of cement diagenesis in mudstones of the Permian Spraberry and Wolfcamp Formations, *AAPG Bulletin*.
- [18] Mills, N.T., **Reece, J.S.**, Tice, M.M. (in prep.). The effects of microorganisms on mudstone porosity, permeability, and compressibility during early burial diagenesis, *Geochemistry, Geophysics, Geosystems*.
- [17] <sup>†</sup>Eakin, A.L., **Reece, J.S.**, Milliken, K.L. (in prep.). Deviation from "normally-compacted" depth profiles: Quantifying chemical consolidation of the Permian Spraberry and Wolfcamp Formations, West Texas, *Journal of Sedimentary Research*.

#### CONFERENCE ABSTRACTS/ PRESENTATIONS

† graduate student advisee, §undergraduate student advisee

#### 2020

[49] <sup>†</sup>Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2020), Clay minerals modulate early carbonate diagenesis (Poster), Gordon Research Conference, Galveston, Texas, January 12-17.

#### 2019

- [48] Coggon, R.M., Reece, R.S., Christeson, G.L., Teagle, D.A.H., Sylvan, J.B., Reese, B.K., Leckie, R.M., Lowery, C., Hayman, N.W., **Reece, J.S.**, Jöns, S., Zachos, J.C., Briggs, B.R., Kirkpatrick, J.B., and Huber, M. (2019), The South Atlantic Transect A Multidisciplinary Scientific Ocean Drilling Investigation, Abstract presented at 2019 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [47] <sup>†</sup>Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2019), The acid-base properties of clay minerals as a potential buffer for sediment pore water pH and carbonate saturation during microbial iron reduction (Talk), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 21.

- [46] <sup>†</sup>Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2018), The acid-base properties of clay minerals as a potential buffer for sediment pore water pH and carbonate saturation during microbial iron reduction (Talk), Abstract presented at 2018 Geological Society of America Annual Meeting, GSA, Indianapolis, Indiana, November 4-7.
- [45] <sup>†</sup>Eakin, A.L., **Reece, J.S.**, and Milliken, K. (2018), Cement paragenesis as revealed by SEM cathodoluminescence imaging in the Permian Spraberry and Wolfcamp Formations (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 22.
- [44] Mills, N.T., Reece, J.S., and Tice, M.M. (2018), The influence of clay minerals on the evolution of mudstone pore fluids during microbial iron reduction (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 22.
- [43] <sup>†</sup>Mills, N.T. and **Reece, J.S.** (2018), How do microbes affect mudstone properties during diagenesis? (Poster), Gordon Research Conference, Galveston, Texas, January 21-26.

- [42] <sup>†</sup>Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2017), Silica diagenesis in mudstones and the impact on consolidation and brittle deformation (Talk), Abstract presented at 2017 Geological Society of America Annual Meeting, GSA, Seattle, Washington, October 22-25.
- [41] <sup>†</sup>Eakin, A.L. and **Reece, J.S.** (2017), Silica diagenesis in mudstones and the impact on consolidation and brittle deformation (Poster), Abstract presented at 2017 Annual Convention & Exhibition, AAPG, Houston, Texas, April 2-5.
- [40] <sup>†</sup>Eakin, A.L. and **Reece, J.S.** (2017), Investigation of quartz and carbonate diagenesis in mudstones of the Permian Spraberry and Wolfcamp Formations, west Texas (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 30.
- [39] <sup>†</sup>Mills, N.T., **Reece, J.S.,** and Tice, M.M. (2017), Evolution of mudstone porosity, permeability, and microstructure in the presence of microorganisms during vertical compression (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 30.
- [38] §Shackleton, T. and **Reece, J.S.** (2017), Microfossils in marine sediments: The influence on macro-scale mechanical behavior (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 30.
- [37] §Shackleton, T. and **Reece, J.S.** (2017), Microfossils in marine sediments: The influence on macro-scale mechanical behavior (Poster), Abstract presented at 2017 51<sup>st</sup> Annual Meeting, GSA South-Central Section, San Antonio, Texas, March 13-14.

- [36] §Altobelli, M.A. and **Reece, J.S.** (2016), Effect of organic material on mechanical, hydrological, and microstructural properties of mudstones (Poster), Abstract MR51C-2722 presented at 2016 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [35] <sup>†</sup>Eakin, A.L. and **Reece, J.S.** (2016), Investigation of quartz diagenesis in mudstones of the Spraberry and Wolfcamp Formations (Oral), Abstract MR44A-04 presented at 2016 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [34] <sup>†</sup>Mills, N.T. and **Reece, J.S.** (2016), Evolution of mudstone porosity, permeability, and microstructure in the presence of microorganisms during vertical compression (Poster), Abstract MR51C-2731 presented at 2016 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [33] **Reece, J.S.** and §Shackleton, T. (2016), The role of microfossils in the compression of marine sediments: Implications for submarine slope failure (Poster), Abstract T51B-2912 presented at 2016 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [32] Wu, W., Gensterblum, Y., **Reece, J.S.** and Zoback, M.D. (2016), Permeability evolution with shearing of simulated faults in unconventional shale reservoirs (Poster), Abstract MR51C-2727 presented at 2016 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [31] <sup>†</sup>Mills, N.T. and **Reece, J.S.** (2016), How do microbes affect mudstone properties during diagenesis? (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 31.

- [30] <sup>§</sup>Altobelli, M. and **Reece, J.S.** (2016), Effect of organic material and heterogeneities on mechanical and flow behavior in mudstones (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 31.
- [29] <sup>§</sup>Goodspeed, J.C. and **Reece, J.S.** (2016), Comparison of three different particle size distribution analyzers (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 31.

- [28] <sup>†</sup>Eakin, A. and **Reece, J.S.** (2015), Effect of Diagenesis on Rock Consolidation Behavior: Testing Analytical Methods (Poster), Texas A&M University Berg-Hughes Symposium, College Station, Texas, October 16.
- [27] <sup>†</sup>Mills, N.T. and **Reece, J.S.** (2015), Influence of microbial activity on mechanical and transport properties of mudstones during early diagenesis (Poster), Texas A&M University Berg-Hughes Symposium, College Station, Texas, October 16.
- [26] <sup>†</sup>Eakin, A. and **Reece, J.S.** (2015), Effect of Diagenesis on Rock Consolidation Behavior (Poster), Texas A&M University Department of Geology and Geophysics Graduate Research Symposium, College Station, Texas, April 10.

#### 2014

- [25] **Reece, J.S.**, Zoback, M.D., and Kohli, A.H. (2014), Effect of Shear Slip on Fault Permeability in Shale Reservoir Rocks, Abstract H13Q-03, presented at 2014 Fall Meeting, AGU, San Francisco, Calif., December 15-19.
- [24] Al Ismail, M.I., Hol, S., **Reece, J.S.**, and Zoback, M.D. (2014), The Effect of CO2 Adsorption on Permeability Anisotropy in the Eagle Ford Shale, presented at the "The Challenges of Studying Low Permeability Materials" workshop, Cergy-Pontoise University, December 2.
- [23] Al Ismail, M.I., Hol, S., **Reece, J.S.**, and Zoback, M.D. (2014). The Effect of CO2 Adsorption on Permeability Anisotropy in the Eagle Ford Shale (Poster), Conference Paper 1921520 presented at the Unconventional Resources Technology Conference, Denver, Colorado, August 25-27.

#### 2012

- [22] **Reece, J.S.** and Flemings, P.B. (2012). Prediction of hydraulic diffusivity in marine mudstones through resedimentation experiments (Poster), Abstract MR33B-2463 presented at 2012 Fall Meeting, AGU, San Francisco, California, December 3-7.
- [21] Bhandari, A.R., **Reece, J.S.**, Cronin, M.B., Flemings, P.B., and Polito, P.J. (2012). Transient pressure-pulse decay permeability measurements in the Barnett shale, Abstract MR33B-2462 presented at 2012 Fall Meeting, AGU, San Francisco, California, December 3-7.
- [20] Flemings, P.B., **Reece, J.S.**, Adams, A.L., and Germaine, J.T. (2012). Making Mudstones: insights into material behavior through resedimentation experiments, Abstract MR23D-04 presented at 2012 Fall Meeting, AGU, San Francisco, California, December 3-7.
- [19] **Reece, J.S.**, Flemings, P.B., and the Expedition 322 Scientists (2012). Deformation and transport processes of resedimented mudstones in their initial pre-subduction conditions (Poster), GSA Penrose Conference on Deformation, fluid flow, and mass transfer in the forearc of convergent margins, Lucca, Italy, March 25-31.

- [18] Betts, W.S., Flemings, P.B., **Schneider, J.**, (2011), Permeability and compressibility of resedimented Gulf of Mexico mudrock, Abstract MR43A-2133 presented at 2011 Fall Meeting, AGU, San Francisco, California, December 5-9.
- [17] **Schneider, J.**, Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2011). Insights into pore-scale controls on mudstone permeability and compressibility through resedimentation experiments (Oral), Geopressure 2011, An International Interdisciplinary Conference on Pressure Regimes and Their Prediction at all Scales, Galveston, TX, October 2-5.
- [16] **Schneider, J.**, Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2011). Insights into pore-scale controls on mudstone permeability and compressibility through resedimentation experiments (Oral), Abstract EGU2011-9052 presented at EGU General Assembly 2011, Vienna, Austria, April 3-8.
- [15] **Schneider, J.**, Flemings, P.B., Germaine, J.T., Compression and permeability behavior of resedimented mudstones from seaward of the Nankai Trough, IODP Expedition 322, Site C0011, presented at 2011 Expedition 319/322 2nd post-cruise meeting, Barcelona, Spain, September 26-28.
- [14] Flemings, P.B., Atkins, C., **Schneider, J.**, Particle size analysis IODP Expedition 319 Site C0009 (1521-1595 mbsf), presented at 2011 Expedition 319/322 2nd post-cruise meeting, Barcelona, Spain, September 26-28.

- [13] **Schneider, J.**, Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2010). Experimentally derived model to predict permeability behavior of mudstones (Poster), Abstract MR11B-1880 presented at 2010 Fall Meeting, AGU, San Francisco, CA, December 13-17.
- [12] **Schneider, J.**, Peets, C.S., Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2010). Experimentally derived mechanical and flow properties of mudstones (Poster), Extended Abstract for the EAGE Shale Workshop Shale Resource and Challenge, 3 pp., Nice, France, April 26-28.

#### 2009

- [11] **Schneider, J.**, Peets, C.S., Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2009). Experimentally derived mechanical and flow properties of fine-grained soil mixtures (Poster), Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract H23F-1024, San Francisco, CA, December 14-18.
- [10] Day-Stirrat, R.J., Flemings, P.B., Strong, H.E., Schneider, J., Sawyer, D.E., Schleicher, A.M. (2009). The fabric of Mass Transport Deposits in the Ursa Basin, Gulf of Mexico, Eos Trans.AGU, 90(52), Fall Meet. Suppl., Abstract T53C-1607, San Francisco, CA, December 14-18.
- [9] Strong, H.E., Flemings, P.B., Sawyer, D.E., Germaine, J.T., Day-Stirrat, R., Schneider, J., (2009). Consolidation characteristics of mass transport deposits in Ursa Basin, Northern Gulf of Mexico, American Association of Petroleum Geologists National Meeting, Denver Colorado.

- [8] Schneider, J., Flemings, P.B., Dugan, B., Long, H., Germaine, J.T., Saffer, D.M. (2008). Porosity vs. Permeability Behavior of Shallow Mudstones in the Ursa Basin, Deepwater Gulf of Mexico (Poster), Eos Trans. AGU, 89(53), Fall Meet. Suppl., Abstract OS11A-1105, San Francisco, CA, December 15-19.
- [7] Flemings, P.B., You, Y., Sawyer, D., **Schneider, J.** (2008). Forward modeling pore pressure evolution in the Ursa Basin, offshore Louisiana, Gulf of Mexico, Eos Trans. AGU, 89(53), Fall Meet. Suppl., Abstract OS11A-1104, San Francisco, CA, December 15-19.

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- [5] **Schneider, J.**, Flemings, P.B (2008). Overpressure and compaction of porous marine sediments (Poster, Oral), Marie Curie Summer School, Knowledge Based Materials, Hydrous and porous systems, Trèst, Czech Republic, August 19-29.
- [4] Flemings, P.B., Long, H., **Schneider, J.**, Germaine, J.T., Dugan, B. (2008). Compressibility and Permeability Behavior of Shales at Low Effective Stresses, European Association of Geoscientists & Engineers Research Workshop, 'Compacting and Stressing Out Shales: from Geological to Production Timescales', Berlin, Germany.
- [3] **Schneider, J.**, Flemings, P.B., Long, H., Dugan, B., Germaine, J.T., Saffer, D.M., and IODP Expedition 308 Shipboard Scientific Party (2008). Pore pressure prediction near the seafloor in the Brazos-Trinity Basin, Gulf of Mexico (Oral), International Conference "Overpressure 2008: Present and Future Challenges A Research Conference", Durham, England, April 6-9.

- [2] Schneider, J., Moerz, T., Bartetzko, A., Iturrino, G.J., Edeskaer, T.M., Flemings, P.B., Behrmann, J.H., John, C.M., and IODP Expedition 308 Shipboard Scientific Party (2005). Examples of mass wasting and hemipelagic sedimentation of Brazos-Trinity Basin #4 and Ursa Basin (Poster), Eos Trans. AGU, 86(52), Fall Meet. Suppl., Abstract OS21A-1516, San Francisco, CA, December 5-9.
- [1] **Schneider, J.**, Moerz, T., Bartetzko, A., Iturrino, G.J., Edeskaer, T.M., Flemings, P.B., Behrmann, J.H., John, C.M., and IODP Expedition 308 Shipboard Scientific Party (2005). Examples of mass wasting and hemipelagic sedimentation of Brazos-Trinity Basin IV and Ursa Basin, Northern Gulf of Mexico, IODP Expedition 308 (Poster), German IODP Meeting, Greifswald, Germany, March 27-29.

#### **BOOK CHAPTERS**

[1] Agarwal, A., Aird, T., Benson, S., Cameron, D., Druhan, J., Harris, J., Maher, K., **Reece, J.**, Vialle, S., Zahasky, C., Zaranonello, S., Zoback, M. (2015). Chapter 42: Overview of assessment of leakage detection and intervention scenarios for CO<sub>2</sub> sequestration, *In:* Gerdes, K.F. (editor), Carbon Dioxide Capture for Storage in Deep Geological Formations, Volume 4, CPL Press and BPCNAI, 964 pp.

#### NON PEER-REVIEWED REPORTS

- [6] Benson, S., Harris, J., Maher, K., Zoback, M., Agarwal, A., Aird, T., Alshuhail, A., Druhan, J., **Reece, J.**, Strandli, C., Vialle, S., Zahasky, C. (2013). Assessment of leakage detection and intervention scenarios for CO2 sequestration. CCP3 Contingency Planning: White Paper on existing literature, Stanford Center for Carbon Storage, Stanford University.
- [5] Aliyeva, S., Allan, A.M., Lopéz, H.S.A., Brown, J., Dahl, J.E.P., Das, I., Druhan, J., Dutta, P., Dvorkin, J., Ebert, Y., El Husseiny, A., Grana, D., Grombacher, D., Heller, R., Hol, S., Kanitpanyacharoen, W., Kobayashi, Y., Kohli, A., Konishi, C., Lin, Y., Maher, K., Mavko, G., Mukerji, T., Rassouli, F., Reece, J.S., Saxena, N., Sen, A., Skurtveit, E., Tew, A., Vaorio, T., Vialle, S., Walsh, R., Walters, R., Xia, Y.,

- Yang, A., and Zoback, M.D. (2013), Stanford Rock Physics & Borehole Geophysics Project, Vol. 133, Stanford University.
- [4] 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, annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Schlumberger, Shell, Statoil, Total, The University of Texas at Austin, Bureau of Economic Geology.
- [3] Flemings, P.B., Germaine, J.T., Adams, A., Betts, W., Casey, B., Cronin, M., Day-Stirrat, R.J., Gao, B., Greeley, D., Horan, A., Katahara, K., Luo, G., Majanovic, J., Merrell, M., Nikolinakou, M., Polito, P., **Schneider, J.**, Smith, A., 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
- [2] Flemings, P.B., Germaine, J.T., Adams, A., Betts, W., Braunscheidel, M., Casey, B., Day-Stirrat, R.J., Gao, B., Heppard, P., Horan, A., Luo, G., Majanovic, J., Merrell, M., Nikolinakou, M., Sawyer, D.E., Sayers, C., **Schneider**, J., Smith, A., 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
- [1] Flemings, P.B., Germaine, J.T., Basin, T., Braunscheidel, M., Darnell, K., Day-Stirrat, R.J., Hudec, M.R., Luo, G., Nikolinakou, M., Sawyer, D.E., **Schneider, J.**, 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

#### FIELD ACTIVITIES

04/2016 - 04/2016	GEOL 609 Field Geology, Andros Island, Bahamas, assisted faculty
05/2005 - 07/2005	IODP Exp. 308, R/V JOIDES Resolution, Gulf of Mexico, sailed as sedimenologist
08/2004 - 10/2004	ARK XX/3, R/V Polarstern, Svalbard, Arctic Ocean, student research assistant
08/2002 - 09/2002	M54/2, R/V Meteor, Costa Rica, Nicaragua, student research assistant

## **COLLABORATORS**

Christina Belanger (TAMU); Torsten Bickert (Marum, University of Bremen, Germany); Brendan Casey (Exponent, Inc.); Hugh Daigle (UT Austin); Ruarri Day-Stirrat (Shell Oil Company, USA); Brandon Dugan (Colorado School of Mines); Yves Gensterblum (Academy RWTH Aachen, Germany); John Germaine (Tufts University); Ursula Hammes (Hammes Energy & Consultants); Ronny Hofmann (Shell Oil Company, USA); Derek Sawyer (Ohio State University); Jason Sylvan (TAMU); Michael Tice (TAMU); Morelia Urlaub (GEOMAR, Germany); Wei Wu (Nanyang Technological University, Singapore); Mark Zoback (Stanford University)

#### **TEACHING**

# **Texas A&M University**

#### **Undergraduate courses**

#### GEOL 306 Introduction to Sedimentology and Stratigraphy

Fall 2020	38 students
Fall 2019	64 students
Spring 2019	25 students
Fall 2018	64 students
Fall 2017	59 students
Fall 2016	90 students
Fall 2015	63 students

## GEOL 311 Principles of Geological Writing (old curriculum)

Spring 2017	23 students
Spring 2015	18 students
Fall 2014	20 students

#### **GEOL 210** Geological Communication

Spring 2020	25 students
Fall 2019	26 students

# GEOL 491 Undergraduate Geology Research Course

Summer 2019	4 students
Summer 2018	5 students

#### **Guest lectures (undergraduate level)**

# GEOL 180 Introduction to Geology & Geophysics

Fall 2020, Spring 2020, Fall 2019, Spring 2019

## GEOL 306 Introduction to Sedimentology and Stratigraphy

Spring 2016 (2x substitute lectures)

## GEOS 101 Introduction to the Geosciences

Fall 2015

## GEOS 101 Seminar for Transfer Students

Spring 2017, Fall 2016, Fall 2015, Fall 2014

#### **Graduate courses**

#### **GEOL 689 Geofluids**

Spring 2021 (offered as stacked course)	11 students
Spring 2019	5 students
Spring 2017 (co-taught with Dr. Ursula Hammes, Adjunct Prof. at TAMU)	8 students

# GEOL 689 Shale Reservoir Workshop: Analyzing Organic-Rich Mudrocks From Basin to Nanoscale

Fall 2016 (lead instructor was Dr. Ursula Hammes, Adjunct Prof. at TAMU) 15 students

## The University of Texas at Austin

# GEO 382D Crustal Geofluids

Spring 2011 (graduate course, developed and deployed one laboratory assignment, instructor: Dr. Peter Flemings)

# GEO 330K Energy Exploration

Spring 2010 (undergraduate course, Graduate Teaching Assistant, instructors: Drs. Peter Flemings, Xavier Janson, Ron Steel)

## STUDENT ADVISING

\* graduated, \* unofficial

## **Graduate Students**

Name	Supervision	Institution	Degree	Role	<b>Progress to Degree</b>
Kenton Fisher	12/20 – present	TAMU G&G	Ph.D.	Member	
Wyatt Scott	08/20-present	TAMU G&G	M.S.	Chair	
Jessica McKay	05/20-present	TAMU G&G	Ph.D.	Member	
Alexander Ferrell	08/19 – present	TAMU G&G	M.S.	Co-Chair	participation in IBA, exp. grad. in Fall 2021
Krishna M. Pradeep	03/17 – present	TAMU CVEN	M.S.	Member	21-P. S. 1111 - 2 - 2 - 2
C. Ryan Elmore	01/16 – present	TAMU G&G	Ph.D.	Chair	two unofficial paternity leaves, exp. grad. in Fall 2021
N. Tanner Mills	08/15 – present	TAMU G&G	Ph.D.	Chair	two unofficial paternity leaves, exp. grad. in Summer 2021
Autumn Eakin	08/14 – present	TAMU G&G	Ph.D.	Chair	full-time employee with Chevron, two unofficial maternity leaves at TAMU
Clyde Findlay*	01/18 - 12/20	TAMU G&G	Ph.D.	Member	
Adnan Ashraf*	03/17 - 06/18	TAMU CVEN	M.S.	Member	
Nfn Ricardo*	09/17 - 05/18	TAMU PETE	M.S.	Member	
Noah Miller*	06/17 - 10/17	TAMU G&G	M.S.	Member	
Joshua DeVore*	08/15 - 05/16	Ohio State Univ.	M.S.	Member*	
Dong Wang*	12/14 - 12/16	TAMU CVEN	Ph.D.	Member	
William Betts*	03/13 - 05/14	UT Austin	M.S.	Member	

# **Undergraduate Students**

Name	Supervision	<b>Project or Current Position (if graduated)</b>
Charles Bahendreier	01/20 - 05/20	Stream table setup and research

Sarah Leavengood	01/20 - 05/20	Stream table setup and research
Katelyn Fannin	01/20 - 05/20	Lunar soil simulants with agglutinates
Mary Thompson	01/20-present	Submarine landslides in microfossil-rich sediments
Jesse Yeon	08/19 - 05/20	Texas A&M University (M.S. student)
Lucky Marchelino	08/19 - 05/20	Assistant to resedimentation tests and geochemical analyses
B. Gunner Boler	08/19 - 05/20	Assistant to resedimentation tests and geochemical analyses
Schuyler Hoff*	10/18 - 12/19	Student technician helping in the laboratory
Michael Martinez*	01/19 - 12/19	University of Houston (M.S. student)
Wyatt Scott*	01/19 - 12/19	Texas A&M University (M.S. student)
Dennis Mmasa*	01/17 - 12/17	University of Arkansas (M.S. student)
Melanie Bowen*	08/16 - 12/17	ExxonMobil
Travis Shackleton*	01/16 - 08/16	Schlumberger
Melissa Altobelli*	01/16 - 12/16	ExxonMobil
Clayton Goodspeed*	08/15 - 05/16	Halliburton

# AWARDS AND HONORS OF SUPERVISED STUDENTS

2018	1st place, PhD Research Poster, TAMU Geol. & Geophys. Research Symposium	Autumn Eakin
2018	GSA Travel Grant (\$125)	Tanner Mills
2017	GSA Travel Grant (\$125)	Tanner Mills
2017	1 <sup>st</sup> place, PhD Completed Research, TAMU Geol. & Geophys. Research Symp.	Autumn Eakin
2017	AAPG Grants-in-Aid Award (\$3000)	Tanner Mills
2016 - 2017	Berg-Hughes Center Fellowship (BP)	Ryan Elmore
2016	2 <sup>nd</sup> place, PhD Anticipated Research, TAMU Geol. & Geophys. Research Symp.	Tanner Mills
2016	3 <sup>rd</sup> place, Undergraduate Research, TAMU Geol. & Geophys. Research Symp. M	Melissa Altobelli
2015 - 2016	Berg-Hughes Center Fellowship (Saudi ARAMCO)	Tanner Mills
2015	1 <sup>st</sup> place, PhD Anticipated Research, TAMU Geol. & Geophys. Research Symp.	Autumn Eakin

# OTHER ACCOMPLISHMENTS OF SUPERVISED STUDENTS

2020	Secured academic job at Broward College (FL) as part of my service to AFF	Kieron Prince
2020	Summer Internship with EOG Resources	Wyatt Scott
2019	Geology & Geophysics Outstanding Senior Award	Michael Martinez
2019	Geology & Geophysics Outstanding Senior Award	Wyatt Scott
2018	Summer Internship with ConocoPhillips	Tanner Mills
2018	Full-time position with ExxonMobil	Melanie Bowen
2018	Spring Internship with ExxonMobil	Melanie Bowen
2017	Full-time position with ExxonMobil	Melissa Altobelli
2017	Internship with ExxonMobil	Melissa Altobelli

# PROFESSIONAL SERVICE

**Internal Service (TAMU)** 

# **Department of Geology and Geophysics**

01/2020-present	Department Awards Committee
08/2019-present	Berg Hughes Scholarship Committee
01/2018 - 02/2020	Graduate Student Awards Committee
09/2018 - 08/2019	Instructional Assistant Professor Search Committee
01/2018 - 05/2018	Executive Committee
03/2017 - 12/2017	Graduate Admissions Task Force for "Making the Graduate Program Better"
02/2017 - 04/2017	Unconventional Resources Search Committee
03/2016 - 05/2017	Berg-Hughes Center Fellowship Committee
09/2015 - 12/2017	Graduate Admissions Committee
09/2016 - 05/2017	Hosting Halbouty Visiting Chair Dr. Ursula Hammes (Hammes Energy & Consultants)

# **College of Geosciences**

12/2019 - present	College Awards Committee
01/2019 - present	Strategic Planning Steering Committee
10/2014 - 02/2015	Onboarding & Mentoring Taskforce
10/2015 - 01/2016	New Geosciences Building – Scanning and Optical Microscopy Working Group

## Texas A&M University

10/2018 – 10/2019 Official mentor for Kieron Prince as part of the Academy for Future Faculty (AFF) program

#### **External Service**

# **Community Service**

09/2018 - 05/2019	Ocean Discovery	Lecture Series.	International (	Ocean Discovery	y Program (IO	ODP)

The Ocean Discovery Lecture Series (formerly the Distinguished Lecturer Series) is a renowned lecture series, in which about six distinguished lecturers per academic year speak at many institutions (~6-9) about their scientific results and discoveries related to IODP. The lecturer also acts as an advocate for IODP and teaches community colleges, museums,

etc. about IODP.

#### 10/2014 - 09/2017Science Evaluation Panel (SEP), International Ocean Discovery Program (IODP)

SEP is an advisory body of the JOIDES Resolution Facility Board (JRFB) and primarily reviews proposals to use the IODP drilling platforms.

# **Session Convener**

12/2017	Co-Convener (AGU Fal	l Meeting 2017)
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# **Judge**

03/2018	Annual Geology & Geophysics Research Symposium, TAMU
03/2017	Annual Geology & Geophysics Research Symposium, TAMU
12/2016	Outstanding Student Paper Award (AGU Fall Meeting)
12/2014	Outstanding Student Paper Award (AGU Fall Meeting)
12/2012	Outstanding Student Paper Award (AGU Fall Meeting)

02/2012 Annual Jackson School Research Symposium, UT Austin

# <u>Organize</u>r

01/2013 - 07/2013 Co-organizer of School of Earth Sciences Postdoc Seminar Series, Stanford University

#### Referee

#### Peer reviewed journals

Advances in Water Resources, American Rock Mechanics Association (ARMA), Earth and Planetary Science Letters (EPSL), Geology, Geophysical Research Letters (GRL), Journal of Geophysical Research – Solid Earth (JGR), Marine and Petroleum Geology (MPG), NSF International Ocean Discovery Program (IODP), Geochemistry, Geophysics, Geosystems (G-cubed), Transport in Porous Media

# **Funding agencies**

American Chemical Society (ACS), Texas Academy of Science (TAS)

#### INVITED TALKS

- 2019 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Central Washington University, Ellensburg, Washington, May 3, 2019 (as part of IODP Distinguished Lecture Series)
- 2019 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Southwest Oregon Community College, Coos Bay, Oregon, April 13, 2019 (as part of IODP Distinguished Lecture Series)
- Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Montana State University, Billings, Montana, March 28, 2019 (as part of IODP Distinguished Lecture Series)
- 2019 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, February 21, 2019 (as part of IODP Distinguished Lecture Series)
- 2018 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Rowan University, Glassboro, New Jersey, November 15, 2018 (as part of IODP Distinguished Lecture Series)
- Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Museum of Arts and Sciences, Macon, Georgia, October 2, 2018 (as part of IODP Distinguished Lecture Series)
- 2018 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, University of Miami – Rosenstiel School of Marine and Atmospheric Science, Miami, Florida, October 1, 2018 (as part of IODP Distinguished Lecture Series)
- 2018 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Mississippi State University, Starkville, Mississippi, September 6, 2018 (as part of IODP Distinguished Lecture Series)
- 2018 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, University of Louisiana at Lafayette, Lafayette, Louisiana, September 4, 2018 (as part of IODP Distinguished Lecture Series)
- 2017 Controls on hydromechanical properties of mudstones through scientific ocean drilling, University of Texas San Antonio, Department of Geological Sciences Seminar, Fall 2017

- 2015 Compressing natural mudstones: Controls on mechanical and fluid-flow properties, University of Georgia, Department of Geology Seminar, Fall 2015
- Multi-scale flow behavior in mudrocks, The Ohio State University, School of Earth Sciences seminar, Spring 2013
- 2013 Multi-scale flow behavior in mudrocks, Texas A&M University, Department of Geology and Geophysics, Spring 2013
- Impact of silt fraction on compressibility, permeability, and microstructure of natural mudstones, Stanford University, Department of Geophysics seminar, Fall 2012

#### PARTICIPATION IN WORKSHOPS

- 2020 Invited panelist on NSF CAREER Workshop, TAMU
- 2020 STRIDE Workshop Training, TAMU
- 2020 Invited panelist on NSF CAREER Workshop for Tenure-track Assistant Professors in the College of Agriculture and Life Sciences
- 2018 Leadership Development Program with Dr. Natemeyer, TAMU
- 2017 IODP proposal development workshop on Submarine Landslides, SMU, Dallas, TX
- NSF Career and Other Young Investigator Programs Seminar, TEES, TAMU
- 2016 eCampus Assignments and Assessments, TAMU Instructional Technology Services
- 2016 Writing Good Exam Questions, TAMU Center for Teaching Excellence
- 2015 Teaching Methods, TAMU Center for Teaching Excellence
- 2015 Lecturing Well, TAMU Center for Teaching Excellence
- 2014 ADVANCE Roadmap for a Successful Academic Career Workshop, TAMU
- 2013 IODP Workshop on Multidisciplinary Transect Drilling During Transits, TAMU
- 2012 Building U.S. Strategies for 2013-2023 Scientific Ocean Drilling, Denver, Colorado
- 2009 Seabed Sediment Pore Pressure: Genesis, Measurement and Implications for Design/Analysis, Oslo, Norway
- 2008 Marie Curie Summer School on Aqueous and Porous Materials, Trèst, Czech Republic
- 2008 TEMIS 2D/3D (Basin Modeling), Beicip-Franlab, Houston, TX
- 2007 Soil Mechanics, Shell E&P, Houston, TX

#### **OUTREACH ACTIVITIES**

- 2018 "Soda can" activity at College's GeoX event (June 14<sup>th</sup>)
- 2018 "Soda can" activity as outreach activity with Bryan High School students (April 27<sup>th</sup>)
- 2017 Outreach activity at the Brazos Valley Children's Museum (Oct. 7th)
- 2017 Outreach activity at College's GeoX event (June. 9<sup>th</sup>)
- 2017 Outreach activity along with College event hosting Coram Deo Academy (Feb. 3<sup>rd</sup>)