KYLE T. SPIKES – CURRICULUM VITAE

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The University of Texas at Austin
2275 Speedway Stop C9000
Austin, TX 78712–1722

EDUCATION

2008	PhD Geophysics	Stanford Univ.
2007	MS Geophysics	Stanford Univ.
2002	MS Geology	Univ. of Kansas
2001	BS Geology	Univ. of Kansas

RESEARCH, TEACHING, AND WORK EXPERIENCE

2015–	Associate Professor, Exploration Geophysics	UT-Austin
2009–2015	Assistant Professor, Exploration Geophysics	UT-Austin
2015–2017	Temporary Teaching Faculty	Univ. of Houston
2010–2013	Summer Instructional Adjunct Professor	Univ. of Houston
2008–2009	Post-Doctoral Fellow	Univ. of Bergen, Norway
2007–	Geophysical Consultant	Self Employed
2002–2008	Graduate Research Assistant	Stanford Univ.
2006–2007	Geophysics Field Camp Co-Coordinator/Instructor	Stanford/U. of Bucharest
2006–2007	Tutor for Calculus, Physics, and Statistics	Stanford Univ.
2003–2005	Graduate Teaching Assistant	Stanford Univ.
2005	Geoscience Internship	Schlumberger
2004	Geoscience Internship	BP Exploration
2002	Geoscience Internship	ExxonMobil Exploration
2001–2002	Graduate Research Assistant	Univ. of Kansas
1998–2001	Undergraduate Research Assistant	Univ. of Kansas
1999	Undergraduate Teaching Assistant	Univ. of Kansas

FUNDING/GRANTS

In review

2023–2025 PI, *Rock-physics and numerical modeling of wavefield scattering in reservoir-type carbonates with different textures* — UT-Austin
Source: American Chemical Society Petroleum Research Fund
Amount: $110,000

2021–2024 PI, *Surface-deployed DAS and geophone data comparisons for near-surface characterization and monitoring* — UT-Austin
Source: U.S. Army Engineer Research and Development Center
Amount: $1,405,000

Funded — UT-Austin

2015–2017 PI, *Effective medium modeling of shale properties*
Source: BP America Production Company
Amount: $308,136

2016–2018 Collaborator, BIG DATA: *Fractured Subsurface characterization using high performance computing and guided by big data* — UT-Austin
Source: NSF
Amount: $389,147

2014–2016	CO-PI, *Connectivity between fractures and pores in hydrocarbon-rich mudrocks* Source: RPSEA Unconventional Onshore Program PI: H. Daigle (25%). CO-PIs: N. Hayman (25%), K. Spikes (25%), J. Gale (8.3%), P. Eichhubl (8.3%), K. Milliken (8.3%) Amount: $1,030,386	UT-Austin
2012–2015	CO-PI, *Seismic inversion constrained by novel rock physics modeling and geostatistical simulation in liquid-rich shales* Source: Shell-UT Unconventional Research (SUTUR) PI: M. Sen (25%). CO-PIs: K. Spikes (25%), S. Srinivasan (25%) and C. Verdin (25%) Amount: $864,415	UT-Austin UT-Austin
2009– 2012 2011–2013	CO-PI, Exploration and Development Geophysics Education and Research (EDGER) Consortium Source: Industry Consortium Sponsors CO-PIs: K. Spikes (33%), M. Sen (33%), N. Tisato (33%). Amount: $40,000 annually per company PI, *Rock-physics modeling and azimuthally varying seismic analysis, the In Salah project* Source: Lawrence Livermore National Laboratory Amount: $27,000 PI, *Rock-physics and seismic modeling of the Haynesville Shale* Source: American Chemical Society, Petroleum Research Fund Amount: $100,000	UT-Austin

STUDENT ADVISEES

PhD

2022–	Vitor Leal de Mellow	UT-Austin
2021–	Osama Alnasery	UT-Austin
2017–2022	Wei Xie, *Reservoir facies optimization using human-guided machine learning and probabilistic rock-physics templates,* Now at Facebook	UT-Austin
2014–2020	David Tang, *Methods for analysis in digital images of sedimentary rocks*, Now at ExxonMobil	UT-Austin
2013–2017	Elliot Dahl, *Viscoelastic wave propagation along a borehole using squirt flow and Biot poroelastic theory*. Now at Combient MiX.	UT-Austin
2012–2017	Han Liu (co-adv), *Quantification of the effects of fracture properties on seismic data*. Now at BP	UT-Austin
2012–2016	Qi Ren (co-adv), *Anisotropic Seismic Characterization of the Eagle Ford Shale: Rock Physics Modeling, Stochastic Seismic Inversion, and Geostatistics*. Now at Google.	UT-Austin
2010–2014	Russell Carter, *Fluid Characterization at the Cranfield CO_2 Injection Site: Quantitative Seismic Interpretation from Rock-Physics Modeling and Seismic Inversion*. Now at ConocoPhillips.	UT-Austin
2010–2014	Meijuan Jiang, *Seismic reservoir characterization of the Haynesville Shale: Rock physics modeling, prestack seismic inversion, and grid searching*. Now at Shell.	UT-Austin
2008–2013	Bernardo Moyano (co-adv), *Static and dynamic elastic behavior of siliciclastic reservoir rocks*. Now at Wintershall Dea.	Univ. of Bergen

MS

2017–2019	Michael McCann, Low-frequency attenuation measurements of fluids. Now at Boral Industries.	UT-Austin
2014–2016	Barry Borgman, *Characterization of the Cana-Woodford Shale Using Fractal-Based Stochastic Inversion*. Now at Schlumberger.	UT-Austin
2014–2016	A. J. Yanke, *Application of Isotropic Inversion to Orthorhombic Media*. Now at Equinor.	UT-Austin

2012–2014	Sarah Coyle, *Reservoir characterization of the Haynesville Shale, Panola County, Texas, using rock physics modeling and partial stack seismic inversion*. Now at Chevron.	UT-Austin
2012–2014	Lauren Becker, *The effects of spacing, aperture, and infill on the seismic detectability of fracture networks: A numerical wave propagation study*. Now at BP.	UT-Austin
2010–2012	Kwon Taek Oh, *Velocity modeling to determine pore aspect ratios of the Haynesville Shale*. Now at Korea National Oil Corporation.	UT-Austin
	BS with thesis or research project	
2017–2019	David Wiggs	UT-Austin
2017–2018	Zongpeng Chen	UT-Austin
2014–2016	Jennifer Beam	UT-Austin
2014	Alex Robson	UT-Austin
2012	Lauren Becker	UT-Austin
2012	Sarah Coyle	UT-Austin
2010–2011	Krongrath Suwannasri (co-adv)	UT-Austin

THESIS COMMITTEES

	PhD Dissertation	
2020–	Arnab Dhara	UT-Austin
2020–	Ben Gremillion	UT-Austin
2019–	Ricardo DeBranca	UT-Austin
2019–	Sophie Goliber	UT-Austin
2019–	Jingxuan Liu (Pet. Engr.)	UT-Austin
2019–	Daria Olszowska (Pet. Engr.)	UT-Austin
2020–2021	Joe Vantassel (CEA Engr.)	UT-Austin
2018–2021	Andrew Gase	UT-Austin
2018–2022	Harpreet Kaur	UT-Austin
2018–2021	Son Phan	UT-Austin
2017–2021	Eric Goldfarb	UT-Austin
2017–2021	Ken Ikeda	UT-Austin
2017–2019	Janaki Vamaraju	UT-Austin
2016	Anthony Barone	UT-Austin
2016–2019	Reetam Biswas	UT-Austin
2015–2018	Badr Alulaiw	UT-Austin
2016–2018	Matt Ramos	UT-Austin
2015–2017	Yanadet Sripanich	UT-Austin
2015–2017	Debanjan Datta	UT-Austin
2015–2018	Elsa Maalouf (Pet. Engr.)	UT-Austin
2014–2017	Menal Gupta	UT-Austin
2015–2016	Morteza Naraghi (Pet. Engr.)	UT-Austin
2014–2016	Yangkang Chen	UT-Austin
2013–2016	Kiran Sathaye	UT-Austin
2013–2015	Paul Sayar (Pet. Engr.)	UT-Austin
2013–2015	Parvaneh Karimi	UT-Austin
2011–2015	Shan Huang (Pet. Engr.)	UT-Austin
2013–2014	Siwei Li	UT-Austin
2009–2013	Terence Campbell	UT-Austin
2010–2013	Mohammed Alhussain	UT-Austin
2011–2013	Yang Xue	UT-Austin
2009–2012	Yi Tao	UT-Austin
2009–2012	Kurtus Woolf	UT-Austin
	PhD Examining	
2020	Wade Aubin	UT-Austin
2018	Evan Ramos	UT-Austin
2014	Justin Hiester	UT-Austin

2013	Julie Ditkof	UT-Austin
2012–2013	Jon Major	UT-Austin
2012	Anna Dias	UT-Austin
2011–2012	Sharif Morshed	UT-Austin
	MS Thesis	
2021–2022	Cameron deFabry	UT-Austin
2020–2022	Carolyn Bland	UT-Austin
2019–2021	Xin Liu	UT-Austin
2019–2021	David Wiggs	UT-Austin
2018-2020	Jackson Tomski	UT-Austin
2017–2019	Ben Gremillion	UT-Austin
2016–2018	Pedro A. Garza Juarez	UT-Austin
2016–2018	Hala Alqatari	UT-Austin
2016–2018	Sean Bader	UT-Austin
2014–2015	Jung Kyu Kim	UT-Austin
2014–2015	Saygin Ileri	UT-Austin
2014–2015	Anthony Barone	UT-Austin
2014–2015	Ryan Swindeman	UT-Austin
2014–2015	Saygin Ileri	UT-Austin
2013–2014	Mustafa Al-Waily	UT-Austin
2013–2014	Jacqueline Maleski	UT-Austin
2013–2014	Patrick Gustie	UT-Austin
2012–2013	Mark Duncan	UT-Austin
2011–2013	Kumar Das	UT-Austin
2012–2013	Sharif Morshed	UT-Austin
2012–2013	Essi Kwabi (Pet. Engr.)	UT-Austin
2010–2012	Alex Lamb	UT-Austin
2011–2012	Antoine Montaut (Pet. Engr.)	UT-Austin
2009–2011	Corey Joy	UT-Austin
2009–2010	Diego Valentin	UT-Austin
	BS Thesis	
2017–2018	Sarah Greer	UT-Austin
2013–2014	Lubna Barghouty	UT-Austin

PROFESSIONAL MEMBERSHIPS

2000–	Society of Exploration Geophysicists (SEG)
2005–	European Association of Geoscientists and Engineers (EAGE)
2009–	American Association of Petroleum Geologists (AAPG)

CLASSES TAUGHT

2021 Fall	GEO 384C/465K, Exploration Seismology (5 Students)	UT-Austin
2021 Fall	GEO 384U, Quantitative Seismic Interpretation (5 Students)	UT-Austin
2020 Fall	GEO 384C/465K, Exploration Seismology (12 Students)	UT-Austin
2020 Fall	GEO 384N, Rock physics (5 Students)	UT-Austin
2020 Spring	GEO 191, Co-taught Proposal Writing (21 Students)	UT-Austin
2019 Fall	GEO 384U, Quantitative Seismic Interpretation (11 Students)	UT-Austin
2019 Fall	GEO 384C/465K, Exploration Seismology (5 Students)	UT-Austin
2019 Spring	GEO 191, Co-taught Proposal Writing (38 Students)	UT-Austin
2018 Fall	GEO 384N, Rock physics (7 Students)	UT-Austin
2018 Fall	GEO 384C/465K, Exploration Seismology (6 Students)	UT-Austin
2018 Spring	GEO 191, Co-taught Proposal Writing (22 Students)	UT-Austin
2017 Fall	GEO 384C/465K, Exploration Seismology (11 Students)	UT-Austin
2017 Fall	GEO 384U, Quantitative Seismic Interpretation (13 Students)	UT-Austin
2017 Summer	GEOL 7324, Rock Physics (3 Students)	Univ. of Houston
2016 Fall	GEO 384C/465K, Exploration Seismology (17 Students)	UT-Austin
2016 Fall	GEO 384N, Rock Physics (9 Students)	UT-Austin

2016 Summer	GEOL 7324, Rock Physics (9 Students)	Univ. of Houston
2015 Fall	GEOL 384U, Quantitative Seismic Interpretation (16 Students)	UT-Austin
2015 Fall	GEOL 384C/465K, Exploration Seismology (22 Students)	UT-Austin
2015 Spring	GEOL 7324, Rock Physics (10 Students)	Univ. of Houston
2014 Fall	GEOL 384N, Rock Physics (12 Students)	UT-Austin
2014 Fall	GEOL 384C/465K, Exploration Seismology (20 Students)	UT-Austin
2014 Spring	GEOL 193, Tech Sessions (68 Students)	UT-Austin
2013 Fall	GEOL 384N, Rock Physics (8 Students)	UT-Austin
2013 Fall	GEOL 384C/465K, Exploration Seismology (25 Students)	UT-Austin
2013 Fall	GEOL 193, Tech Sessions (106 Students)	UT-Austin
2013 Summer	GEOL 4355, Geophysics Field Camp (33 Students)	Univ. of Houston
2013 Spring	GEOL 193, Tech Sessions (66 Students)	UT-Austin
2012 Fall	GEOL 384N, Rock Physics (11 Students)	UT-Austin
2012 Fall	GEOL 384C/465K, Exploration Seismology (18 Students)	UT-Austin
2012 Fall	GEOL 193, Tech Sessions (96 Students)	UT-Austin
2012 Summer	GEOL 4355, Geophysics Field Camp (33 Students)	Univ. of Houston
2012 Spring	GEOL 468K, Geophysics for Geoscience Majors (13 Students)	UT-Austin
2011 Fall	GEOL 391, Rock Physics (7 Students)	UT-Austin
2011 Summer	GEOL 4355, Geophysics Field Camp (28 Students)	Univ. of Houston
2011 Spring	GEOL 468K, Geophysics for Geoscience Majors (32 Students)	UT-Austin
2010 Fall	GEOL 391, Rock Physics (8 Students)	UT-Austin
2010 Summer	GEOL 4355, Geophysics Field Camp (26 Students)	Univ. of Houston
2010 Spring	GEOL 468K, Geophysics for Geoscience Majors (27 Students)	UT-Austin

SERVICE/ADMINISTRATION

2021–	Member, Programmatic Course Development Committee	UT-Austin
2021	Member, JSG GSC Committee on graduate requirements	UT-Austin
2019–2020	Chair, Editorial Board, *The Leading Edge*	SEG
2019–	JSG Endowments Committee	UT-Austin
2019–2020	Chair, Geophysics Curriculum Revision Committee	UT-Austin
2018–	Signatory, Geophysics Endowed Accounts	UT-Austin
2018–2020	Member, Sed/Strat Faculty Search Committee	UT-Austin
2018–	DGS Grievance delegate	UT-Austin
2018–2020	DGS Executive Committee, SSL Program Lead	UT-Austin
2017–2018	Chair, JSG Equipment Matching Fund Committee	UT-Austin
2017	SSL Program Faculty Evaluation Committee	UT-Austin
2017–2019	Member, Energy Engineering Building Design Committee	UT-Austin
2016–2018	Chair, Travel Grants Committee	SEG
2016–2019	Member, Editorial Board, *The Leading Edge*	SEG
2015–2017	Member, JSG Equipment Matching Fund Committee	UT-Austin
2015	Member, Steering Cmte, 17th Intl Workshop on Seismic Anisotropy	UT-Austin
2015	Member, Exploration Geophysics Faculty Search Committee	UT-Austin
2014–	Member, Research Committee	SEG
2014–2015	Member, Dept. Geol. Sci. Strategic Planning Committee	UT-Austin
2014–2015	Member, Geophysics Faculty Search Committee	UT-Austin
2013–2014	Special Issue Assoc. Editor, INTERPRETATION	SEG
2013–2014	Coordinator, Dept. Geol. Sciences Seminar	UT-Austin
2013	Member, Steering Cmte, Seismic-Petrophysics Workshop	SPWLA
2012–	Member, JSG Energy Theme Exec Council	UT-Austin
2012–	Member, Travel Grants Committee	SEG
2012–2013	Session Chair, Annual Meeting	SEG
2012–2013	Associate Coordinator, Dept. Geol. Sciences Seminar	UT-Austin
2011–2013	Member, Technical Program Committee, Annual Meeting	SEG
2010–2016	Co-chair (faculty) Committee on University and Student Programs	SEG

2009–	Member, Committee on University and Student Programs	SEG
2009–	Faculty Advisor, UT-Austin SEG Student Chapter	UT-Austin
2005–2007	Member, Student Hire Evaluation Team	Stanford Univ.
2005	Chair, Research Review Committee	Stanford Univ.
2004	Member, Research Review Committee	Stanford Univ.
2003–2008	Graduate Student Mentor	Stanford Univ.
2004–2005	Member, Graduate Student Advisory Council	Stanford Univ.
2001–2002	Member, CLAS Dean's Executive Student Council	Univ. of Kansas
1999–2002	President, SEG School Chapter	Univ. of Kansas
2001–2002	Member, Geology Associates Alumni Relations Committee	Univ. of Kansas
2000–2001	Member, Geology Field Camp Committee	Univ. of Kansas
2000–2001	Member, Geology Undergraduate Studies Committee	Univ. of Kansas
2000	Member, Undergraduate Research Symposium Committee	Univ. of Kansas
2000	Session Judge, 2000 International Meeting	SEG

INVITED TALKS/LECTURES

2021 July 3	*Fundamentals of rock physics*	University of Dhaka
2020 Feb 28	*Rock physics of unconventional reservoirs*	Rice University
2018 April 9	*Corralling uncertainty in seismic reservoir characterization*	University of Wyoming
2017 May 1	*Lithology and fluid facies identification from post-stack seismic inversion*	Offshore Technology Conference
2017 April 20	*Deformation of digital images and trends of porosity versus numerical elastic properties*	SEG/Chinese Geophys. Society Conference
2016 July 26	*Rock-physics modeling approaches for seismic characterization of shales*	CSIRO/Curtin University
2016 July 21	*Statistical rock-property estimates from inverted impedances and rock-physics modeling*	University of Western Australia
2016 July 19	*Bridging the gap of measurement scales in seismic and rock physics characterization of unconventional plays*	University of Western Australia
2015 Sept 17	*Bridging the gap of measurement scales in seismic and rock physics characterization of unconventional plays*	Univ. of Texas, Arlington
2015 May 3	*Seismic Inversion and Rock Physics*	PetroVietnam University
2015 April 24	*Bridging the gap of measurement scales in seismic and rock physics characterization of unconventional plays*	Texas A&M University
2015 March 5	*Bridging the gap of measurement scales in seismic and rock physics characterization of unconventional plays*	University of Utah
2014 May 28	*Integrated seismic and rock physics characterization of unconventional reservoir plays*	ConocoPhillips
2013 June 24	*Rock physics and seismic characterization of the gas-rich Haynesville Shale*	Univ. of Bergen, Norway
2013 Apr 27	*Industry-scale 3d exploration seismic data: How do we acquire it, and what do we obtain from seismic data?*	Southwest KS Royalty Owners Association
2013 Mar 29	*Geophysical signatures of geological parameters of the Haynesville Shale*	Univ. of Arkansas, Fayetteville
2012 Sept 20	*Geophysical signatures of geological parameters for gas shales*	UT-Austin
2012 July 16	*Rock physics modeling of the Haynesville shale and error estimates in VTI media*	ExxonMobil Upstream Research Company
2012 Feb 16	*Rock physics modeling of oil and gas shales*	Univ. of Kansas
2011 Sept 9	*Integrating geomechanics, rock physics, and seismic data for CO_2 monitoring*	Lawrence Livermore National Laboratory
2011 April 10	*Fracture density characterization in tight rocks*	Geophys. Soc. of AK
2011 Mar 10	*Fracture density characterization in tight rocks*	Shell E&P Intl

HONORS/AWARDS

2016	Gledden Visiting Faculty Fellowship	Univ. of W. Australia
2006–2007	SEG Foundation Two Projects of Special Merit Award Grant to coordinate and teach undergraduate geophysical field camp at Univ. of Bucharest, $20,000	Stanford Univ.
2005–2006	Center of Latin America Studies Research Grant Award Grant for Collaborative Research for Geophysical Investigation of Archaeological sites, Catamarca, Argentina, $8,000	Stanford Univ.
2004–2005	Center of Latin America Studies Research Grant Award Grant for Collaborative Research for Geophysical Investigation of Archaeological sites, Teotihuacan, Mexico, $14,000	Stanford Univ.
2003–2004	School of Earth Sciences McGee Research Grant Award Grant for Collaborative Research for Geophysical Imaging of Archaeological sites, Teotihuacan, Mexico, Amount: $9,000	Stanford Univ.
2002	Society of Exploration Geophysicists Scholarship	Stanford Univ.
2002	Department of Geology Haworth Award Award for Top Student at the M.S. Level	Univ. of Kansas
2001	Department of Geology Haworth Award Award for Top Student at the B.S. Level	Univ. of Kansas
1999	Undergraduate Research Award	Univ. of Kansas
1999–2001	Member of Univ. of Kansas Honors Program	Univ. of Kansas
1999–2002	Society of Exploration Geophysicists Scholarship	Univ. of Kansas
1999–2001	James and Rowena Peoples Geology Scholarship	Univ. of Kansas
1997–2001	American Petroleum Institute Scholarship	Univ. of Kansas
1997–2001	Geographical Scholarship	Univ. of Kansas
1997–2001	Summerfield Scholarship	Univ. of Kansas
1997–2000	Hubert Hall Geology Scholarship	Univ. of Kansas

PROPOSAL REVIEWS

2019	Nazarbayev University Research Review
2019–	American Chemical Society, Petroleum Research Fund
2017–	Department of Energy
2015–	Oak Ridge Associated Universities
2012–	National Science Foundation (NSF)
2011	Research Partnership to Secure Energy for America (RPSEA)

JOURNAL PAPER REVIEWS

2012–	AAPG Bulletin	AAPG
2009–	Computers in Geoscience	Elsevier
2014–	Geophysical Prospecting	EAGE
2012–	Geophysical Research Letters	AGU
2008–	Geophysics	SEG
2009–	Geoscience and Remote Sensing	IEEE
2013–	Interpretation	SEG/AAPG
2011–	Journal of Applied Geophysics	Elsevier
2013–	Journal of Unconventional Oil and Gas Resources	Elsevier
2014–	Mathematical Geosciences	Springer
2013–	SPE Formation Evaluation	SPE
2007–	SEG Expanded Abstracts	SEG
2014–	The Leading Edge	SEG

PUBLICATIONS (Refereed Papers; *Student First Author

Researcher ID: B-5913-2011
ISI h-index: 8
Google Scholar h-index: 15. I10: *29*

In Press

In Review

2022 44. **Spikes, K. T.,** and M. K. Sen, 2022, Correlations of inclusion-based rock-physics model parameters from Bayesian analysis: Journal of Geophysics and Engineering.

2022 43. *Xie, W.**,** and **K. T. Spikes**, 2022, Uncertainty assessment in seismic inversion for reservoir facies optimization: Geophysics.

In Preparation

2022 42. Tisato, N., **Spikes, K. T.** Hoffman, R., and Saxena, N., 2022, Scattering in the ultrasonic frequency range in dry carbonates: Experimental and numerical evidence: Journal of Geophysical Research.

Published

2022 41. Vantassel, J. P., B. R. Cox, P. Hubbard, M. Yust, F. Menq, **K. Spikes**, and D. Fratta, 2022, Effectiveness of distributed acoustic sensing for acquiring surface wave dispersion data using multichannel analysis of surface waves, Performance-based Design in Earthquake. Geotechnical Engineering, Springer.

2022 40. **Spikes, K. T.** and M. K. Sen, 2022, Correlations of rock-physics model parameters from Bayesian analysis: Pressure- and porosity-dependent models applied to unconsolidated sands: Frontiers in Earth Science, 9:805742, doi: 10.3389/feart.2021.805742.

2022 39. *Xie, W., and **Spikes, K. T.**, 2022, Well-log facies classification using an active semi-supervised algorithm with pairwise constraints: Geophysical Journal International, 229, 56–69, doi: 10.1093/gji/ggab442.

2021 38. **Spikes, K. T.** and M. K. Sen, 2021, Bayesian analysis to determine relative significance of inputs of a rock-physics model: Frontiers in Earth Science, 9:640698, doi: 10.3389/feart.2021.640698.

2021 37. *Xie, W., and **Spikes, K. T.**, 2021, Reservoir facies design and modeling using probabilistic rock-physics templates: Geophysics, 86, 1, M17–M28, https://doi.org/10.1190/geo2020-0044.1.

2020 36. Cox, B. **Spikes, K.** Wood, C. Franke, K. Menq, F. Vantassel, J. Yust, M. and Stokoe, K., 2020, "NHERI@UTexas Proof-of-Capability Testing Workshop: non-intrusive 3D levee imaging in St. Louis, MO", in *NHERI@UTexas Proof-of-Capability Testing Workshop: non-intrusive 3D levee imaging in St. Louis, MO*. DesignSafe-CI. https://doi.org/10.17603/ds2-1zc5-8n08.

2020 35. *Tang, D. G., K. L. Milliken, and **K. T. Spikes**, 2020, Machine learning for point counting and segmentation of arenite in thin section: Marine and Petroleum Geology, 120, doi: doi.org/10.1016/j.marpetgeo.2020.104518.

2020 34. *Dahl, E. J. H., and **K. T. Spikes**, 2020, Local and global fluid effects on flexural waves: Geophysics, 85, 1 D1–D11, doi: 10.1190/GEO2018-0040.1.

2019 33. Amalokwu, K., **K. Spikes**, and K. Wolf, 2019, A simple effective medium approach for the bulk electrical and elastic properties of organic-rich shales: Journal of Applied Geophysics, 169, 98–108, doi: 10.1016/j.jappgeo.2019.06.005.

2019 32. **Spikes, K. T.**, N. Tisato, T. E. Hess, and J. W. Holt, 2019, Comparison of geophone and surface-deployed DAS seismic data: Geophysics, 84, 2, A25–A29, doi: 10.1190/GEO2019-0528.1.

2018 31. *Liu, H., M. K. Sen, and **K. T. Spikes,** 2018, 3D simulation of seismic wave propagation in fractured media using an integral method accommodating irregular geometries: Geophysics, 83, 1, WA121–WA136, doi: 10.1190/geo2017-0060.1.

2017 30. Ramos, M. J., D. N. Espinoza, C Torres-Verdin, **K. T. Spikes**, S. E. Laubach, 2017, Stress-dependent dynamic-static transforms of anisotropic Mancos Shale: 51st US Rock Mechanics/Geomechanics Symposium.

2017 29. *Dahl, E. J. H., and **K. T. Spikes**, 2017, Local and global fluid effects on sonic wave modes: Geophysics, 82, 6, D369–D381, doi: 10.1190/geo2017-0080.1.

2017 28. *Gupta, M., **K. Spikes,** and B. Hardage, 2017, Characterization of naturally fractured Arbuckle Group in the Wellington Field, Kansas, using S-wave amplitude variation with offset: Interpretation, **5**, 1, T49–T63, doi: 10.1190/INT-2016-0061.1.

2017 27. **Spikes, K. T.**, 2017, Lithology and fluid facies identification form post-stack seismic inversion: Proceedings of the Offshore Technology Conference, DOI: 10.4043/27685-MS, *Invited Paper*.

2017 26. *Naraghi, M. E., **K. T. Spikes,** and S. Srinivasan, 2017, 3-D reconstruction of porous media from a 2-D section and comparison of transport and elastic properties: SPE Reservoir Evaluation and Engineering, 20, 2, 342–352, DOI: 10.2118/180489-PA.

2016 25. **Spikes, K. T.**, 2016, Statistical rock-property estimates from inverted impedances and rock-physics modeling: Proceedings of the Offshore Technology Conference, DOI: 10.4043/26882-MS, *Invited Paper*.

2016 24. *Ren, Q., and **K. T. Spikes**, 2016, Modeling the effects of micro-scale complexity on the anisotropy of the Eagle Ford Shale: Interpretation, **4**, 2, SE13–SE25, DOI: 10.1190/INT-2015-0120.1.

2016 23. *Jiang, M., and **K. T. Spikes**, 2016, Application of rock-physics modeling, grid searching, and prestack seismic inversion in seismic reservoir characterization of the Haynesville Shale: Journal of Geophysics and Engineering, **13**, 220–233, DOI: 10.1088/1742-2132/13/3/220.

2015 22. *Carter, R. W., and **K. T. Spikes**, 2015, Double difference rock physics inversion for porosity and CO_2 saturation at the Cranfield injection site: Interpretation, **3**, 2, SM23–SM35, DOI: 10.1190/INT-2014-0123.1.

2014 21. **Spikes, K. T.**, 2014, Error estimates of elastic components in stress-dependent VTI media: Journal of Applied Geophysics, **108**, 110–123, 10.1016/j.jappgeo.2014.06.015.

2014 20. *Moyano, B., T. A. Johansen, R. Agersborg, and **K. T. Spikes**, 2014, Diagnostics of seismic time lapse effects of sandstones based on laboratory data: Geophysics, **70**, 5, D275–D287, DOI: 10.1190/GEO2013-0167.1.

2014 19. *Carter, R. W., **K. T. Spikes,** and T. Hess, 2014**,** Inversion of multicomponent 3D vertical seismic profile data for porosity and CO2 saturation at the Cranfield injection site, Cranfield, MS: Interpretation, **2**, SE77–SE89, DOI: 10.1190/INT-2013-0147.1.

2013 18. *Carter, R. W., and **K. T. Spikes,** 2013**,** Sensitivity analysis of Tuscaloosa Sandstones to CO_2 saturation, Cranfield Field, Cranfield, MS: International Journal of Greenhouse Gas Control, **18**, 485–496, DOI: 10.1016/j.ijggc.2013.01.006.

2013 17. *Jiang, M. and **K. Spikes**, 2013, Characterizing the reservoir properties of the Haynesville Shale using rock-physics modeling and grid searching: Geophysical Journal International, **195**, 315–239, DOI: 10.1093/gji/ggt250.

2013 16. **Spikes, K. T.** and M. Jiang, 2013, Rock physics relationships between elastic and reservoir properties in the Haynesville Shale, in U. Hammes and J. Gale, eds., Geology of the Haynesville Gas Shale in East Texas and West Louisiana, U.S.A.: AAPG Memoir **105**, 189–203, DOI:10.1306/13441850M1053603.

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