

Seismic Publications & Presentations

(* indicates student advisees; ** invited presentation)

- Nolte K.A.*, Tsoflias G.P., Bidgoli T.S. and L.W. Watney (2017), Shear-Wave Anisotropy Reveals Pore Fluid Pressure-Induced Seismicity in the US Midcontinent, *Science Advances*, 3, e1700443 (2017).
- Tsoflias G. P., Graham B.*, Haga L.* and W. Lynn Watney (2017) Seismic Reservoir Characterization for Assessment of CO₂ EOR at the Mississippian Reservoir in South-Central Kansas, Abstract NS33A-0054, Fall AGU Meeting, New Orleans, LA, December 11-15, 2017.
- Nolte K. A*, G. P. Tsoflias, Bidgoli T. and W. L. Watney (2017) A new earthquake monitoring method? Change in shear-wave anisotropy as a tool to monitor induced seismicity in Kansas and Oklahoma, Abstract S13D-06, Fall AGU Meeting, New Orleans, LA, December 11-15, 2017.
- Nolte K. A*, G. P. Tsoflias, Bidgoli T. and W. L. Watney (2017) Understanding induced seismicity: Temporal link between pore pressure increase and shear-wave anisotropy, Society of Exploration Geophysicists, Injection Induced Seismicity Workshop, Dallas, TX., USA, November 6-8, 2017.
- Molina Z.*, Nolte K.* and G. Tsoflias (2017), An Overview of Injection Induced Seismicity in Kansas and Oklahoma, SACNAS National Conference, Salt Lake City, UT., USA, October 19 - 21, 2017.
- Nolte K. A.*, Tsoflias G. P., Bidgoli T. S., and W. L. Watney (2017), Monitoring Seismicity Near an Active CO₂ EOR Injection, in DOE NETL Mastering the Subsurface Through Technology Innovation, Partnerships and Collaboration: Carbon Storage and Oil and Natural Gas Technologies Review Meeting, Pittsburgh, PA, August 1-3, 2017.
- Graham, B. L. *, Haga, L. N. *, Nolte, K. A. *, Tsoflias, G. P., and W. L. Watney (2017), Fracture Mapping and Feasibility of Monitoring CO₂ *in situ* From Seismic Data at the Mississippian Carbonate Reservoir, Wellington Oil Field, South-Central Kansas, in DOE NETL Mastering the Subsurface Through Technology Innovation, Partnerships and Collaboration: Carbon Storage and Oil and Natural Gas Technologies Review Meeting, Pittsburgh, PA, August 1-3, 2017.
- Molina Z.*, Nolte K.* and G. Tsoflias (2017), Injection Induced Seismicity in Sumner County, Kansas, KU Undergraduate Research Symposium, Lawrence, Kansas, July 28, 2017.
- Molina Z.*, Nolte K.* and G. Tsoflias (2017), Monitoring Induced Seismicity in Sumner County, Kansas, KU Undergraduate Research Symposium, Lawrence, Kansas, April 22, 2017. Awarded “*Outstanding Student Presentation*”.
- Nolte A.*, Tsoflias G. P., Bidgoli T. S. and W. L. Watney (2017), Understanding the Temporal-Spatial Relationship of Induced Seismicity in Southern Kansas, KU Graduate Research Symposium, Lawrence, Kansas, April 6, 2017.
- Nolte A.*, Tsoflias G. P., Bidgoli T. S. and W. L. Watney (2017), Direct Evidence of Pore Fluid Pressure Increases Inducing Seismicity in the US Midcontinent Through Analysis of Shear-

- Wave Anisotropy, 2017 Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, March 5-7, 2017 (4 pages).
- Nolte A.*, Tsoflias G. P. and W. L. Watney (2017), Monitoring the Northward Advance of Injection Induced Seismicity in Southern Kansas, 2017 Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, March 5-7, 2017 (2 pages).
- Graham B.*, Tsoflias G. P. and W. L. Watney (2017), Seismic Determination of Azimuthal Anisotropy in the Mississippian Chert and Arbuckle from 3D P-P Reflection Data in Wellington Field, South-Central Kansas, 2017 Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, March 5-7, 2017 (4 pages).
- Graham B.*, Tsoflias G. P. and W. L. Watney (2017), Re-processing of 3D Seismic for Enhanced Imaging of the Mississippian and Arbuckle at Wellington Field, South-Central Kansas, 2017 Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, March 5-7, 2017 (4 pages).
- Haga L.*, Tsoflias G. P. and W. L. Watney (2017), Time-Lapse Imaging of CO₂ Injection at the Mississippian Reservoir, Wellington Field, South-central Kansas, 2017 Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, March 5-7, 2017 (4 pages).
- Tsoflias G. P. and M. Becker (2016), GPR Phase Response to Fracture Saline Tracers, Abstract GP51B-1388, Fall AGU Meeting, San Francisco, Calif., December 12-16, 2016.
- Nolte K.*, Tsoflias G. P. and L. W. Watney (2016), Monitoring the Increase in Seismicity in South-Central Kansas, Abstract S43C-2871, Fall AGU Meeting, San Francisco, Calif., December 12-16, 2016.
- Nolte A.*, Tsoflias G. P. and W. L. Watney (2016), Monitoring the Increase in Seismicity in South-Central Kansas, G-Hawk Annual Symposium, Lawrence, Kansas, September 16, 2016 (3rd place award).
- Sodré B.*, Nolte K* and G. Tsoflias (2016), Analysis of Earthquakes in Sumner County, South Central Kansas, KU Summer Undergraduate Research Poster Session, Lawrence, Kansas, July 29, 2016.
- Nolte K.*, Graham B.*, Tsoflias G. P. and W. L. Watney (2016), Monitoring Induced Seismicity Near the Wellington Oil Field CO₂ Injection in the Mississippian and Arbuckle reservoirs, 2016 Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, April 25-27, 2016 (4 pages).
- Graham B.*, Tsoflias G. P. and W. L. Watney (2016), Seismic Modeling of CO₂ Fluid Substitution in the Mississippian Cherty Dolomite and Arbuckle Group Dolomite Reservoirs, Wellington Field, South-Central Kansas, 2016 Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, April 25-27, 2016 (4 pages).
- Tsoflias G. P.***, Fadolkarem Y. and W. L. Watney (2015), Seismic Characterization of the Mississippian in South-central Kansas, AAPG Workshop on Revitalizing Reservoirs, San Antonio, TX, December 1-2, 2015.
- Fadolkarem Y.*, Tsoflias G. P. † and W. L. Watney (2015), Seismic AVO Analysis of the Mississippian Chert and Arbuckle Group at Wellington Field, South-central Kansas, 2015

Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, April 12-14, 2015 (4 pages).

Fadolalkarem Y.*, Tsoflias G. P. † and W. L. Watney (2015), Use of Seismic Multiattribute Regression Analysis for Porosity Prediction in the Mississippian Chert and Arbuckle Group at Wellington Field, 2015 Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, April 12-14, 2015 (4 pages).

Fadolalkarem Y.*, Tsoflias G. P. and W. L. Watney (2014), Pre-stack Seismic Attribute Analysis of the Mississippian Chert and Arbuckle at Wellington Field, South-central Kansas, 2014 Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, April 27-30, 2014 (4 pages).

Sirazhiev A.*, Tsoflias G. P. and L. Watney (2013), Seismic Attribute Analysis of the Mississippian Chert at the Wellington Field in South-Central Kansas, AAPG Mid-Continent Section Meeting, Wichita, Kansas, October 12-15, 2013.

Sirazhiev A.*, Tsoflias G. P. and W. L. Watney (2012), Relating seismic amplitude and frequency response to porosity variability at the top of the Mississippian Chert, South-Central KS, 2012 Annual Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, April 2-6, 2012 (4 pages).