

GEORGIOS P. TSOFLIAS

Associate Professor of Geology, Geophysics
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Education

- 1999 Ph.D. Geological Sciences, The University of Texas at Austin, Austin, TX. “Hydrogeologic Characterization of Fractured Carbonate Aquifers Employing Ground-Penetrating Radar.”
- 1991 M.S., Geophysics, Virginia Polytechnic Institute and State University, Blacksburg, VA. “Common Cyclicities in Seismicity and Water Level Fluctuations at the Charlevoix Seismic Zone of the St. Lawrence River.”
- 1989 B.S., Geophysics, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Languages: English, French, Greek

Professional Experience & Appointments

I) Research

- 2009 – present Associate Professor, The University of Kansas, Lawrence KS, USA
- 2009 – 2010 Visiting Professor of Hydrogeophysics, Land Environment and Geo-Engineering Department (DITAG), Politecnico di Torino, Italy (December 2009 to June 2010)
- 2009 Visiting Professor, Herbette Fellow, Institute of Geophysics, University of Lausanne, Switzerland (August 2009 to November 2009)
- 2003 – 2009 Assistant Professor, The University of Kansas, Lawrence KS, USA

Research Areas: Applied geophysics with emphasis on ground-penetrating radar (GPR) and high-resolution seismic imaging methods; Environmental Geophysics; Hydrogeophysics; Biogeophysics; Exploration Geophysics

Current projects: GPR characterization of fractures and monitoring of fluid-flow, mass transport and heat exchange in fractured aquifers and geothermal systems; High-resolution GPR and seismic imaging of carbonate rocks for assessment of heterogeneous fluid-flow properties; Biogeophysical (GPR) monitoring of microbial activity at biodegrading hydrocarbon contaminated sites; Development of automated three-dimensional shallow seismic methods for high-resolution imaging of soils, fracture zones and voids; Seismic monitoring of CO₂ injection to mid-continent carbonate reservoirs; GPR and seismic imaging of active tectonic settings; Development of seismic and GPR methods for transportation infrastructure projects; Seismic and radar imaging of polar ice sheets and rapidly changing ice streams.

II) Teaching: 2003 – present: The University of Kansas

GEOL 171: Earthquakes and Natural Disasters (enrollment 516 – 984)

GEOL 577: Environmental Geophysics (enrollment 7 – 9)

GEOL 771: Advanced Geophysics: Ground-Penetrating Radar (enrollment 5 – 11)

III) Industry and Government

- 1999 – 2003: Geophysicist (GS-12), U.S. Department of the Interior
- 1996 – 1998: Exploration Geophysicist, Jones Energy, Ltd., Austin, Texas
- 1991 – 1995: Production Geophysicist, Mobil Exploration and Producing US, New Orleans, Louisiana

Honors and Awards*I) Academic*

- 2011 Society of Sedimentary Geology 2011 AAPG/SEPM Annual Meeting, *Excellent Technical Presentation Citation*
- 2009 – 2010 Visiting Professorship of Hydrogeophysics, Politecnico di Torino, Italy
- 2009 Herbette Fellow, Institute of Geophysics, University of Lausanne, Switzerland
- 2009 – 2010 The University of Kansas, Competitive Sabbatical Leave Award: *“Geophysical characterization of fractured rock hydrologic properties through a) inversion of ground penetrating radar data, and b) integrated geophysical research studies”*
- 2008 The University of Kansas, Dept. of Geology, Jan F. and Mary L. van Sant Geology Excellence Award, *“For an outstanding program of research and teaching”*
- 1999 Society of Exploration Geophysicists (SEG) 69th Annual Meeting, *Distinguished Speaker Citation*
- The University of Texas at Austin, Dept. of Geol. Sci., *Best Technical Presentation*, "Hydrogeologic Characterization of Fractured Carbonate Aquifers Using Ground-Penetrating Radar"
- 1998 – 1999 The University of Texas at Austin, Geology Foundation, Banks Memorial Scholarship
- The University of Texas at Austin, University Fellowship
- 1998 Geological Society of America (GSA), Graduate Student Research Grant Award
- The University of Texas at Austin, Geology Foundation Research Grant
- The University of Texas at Austin, Institute for Geophysics, Ewing-Worzel Fellowship
- 1997 Geological Society of America (GSA), Outstanding Student Research Award
- Geological Society of America (GSA), Graduate Student Research Grant Award
- Gulf Coast Association of Geological Societies (GCAGS) Student Research Grant
- The University of Texas at Austin, Geology Foundation Research Grant
- The University of Texas at Austin, Geology Foundation, Wendler Development Fund
- 1996 The University of Texas at Austin, Institute for Geophysics, Ewing -Worzel Fellowship
- 1988 Virginia Polytechnic Institute and State University, Department of Geological Sciences, Amoco Fellowship

II) Professional

- 2002 U.S. Department of the Interior, Minerals Management Service, “Star Award”
- 2001 U.S. Department of the Interior, Minerals Management Service, “Spot Award”
- 2000 U.S. Department of the Interior, Minerals Management Service, “Star Award”
- 1995 Mobil Oil, Central Gulf Team, “Outstanding Service Award”

Professional Affiliations

Society of Exploration Geophysicists (SEG)
 Near Surface Section of SEG (NSG)
 Geophysical Society of Kansas (GSK)
 Geological Society of America (GSA)
 American Geophysical Union (AGU)
 European Geosciences Union (EGU)
 Environmental and Engineering Geophysical Society (EEGS)

European Association of Geoscientists and Engineers (EAGE)
Sigma Gamma Epsilon (SGE) Honor Society of Earth Sciences

Research Funding

I) Funded Proposals

- 2011– 2014 *NASA: Determination of Ice and Basal Properties of Outlet Glaciers, N. Greenland.* Graduate Fellowship to PhD student Jose Velez, PI Tsoflias, \$121,500.
- 2010 – 2015 *National Science Foundation, Renewal Proposal Science and Technology Center: Center for Remote Sensing of Ice Sheets (CReSIS).* Co-I among 13 KU investigators, \$17,976,000.
- 2010 – *Kansas Interdisciplinary Carbonates Consortium (KICC): A Fully Integrated Research and Training Program in Carbonate Systems,* Co-PI, \$225,000 annually.
- 2008 – 2013 *National Science Foundation, Integrative Graduate Education and Research Training (IGERT) project: C-CHANGE: Climate Change, Humans, and Nature in the Global Environment.* Participating Faculty among 40 KU investigators, \$3,025,000.
- 2010 – 2012 *US Department of Energy, Enhanced Geothermal Systems, Verification of Geothermal Tracer Methods in Highly Constrained Field Experiments,* KU PI \$182,867.
- 2009 – 2011 *US Department of Energy, Environmental Remediation Sciences Program, Exploratory Collaborative Research: Verification of Hydraulic Tomography and Tracer Testing using Ground Penetrating Radar,* KU PI \$35,025.
- 2005 – 2010 *National Science Foundation, Science and Technology Center: Center for Remote Sensing of Ice Sheets (CReSIS).* Co-I among 16 KU investigators, \$18,950,000.
- 2008 – 2010 *Hess Oil Company, Stratigraphic and Hydrocarbon Reservoir-analog Character for Uppermost Miocene Oolitic, Thrombolitic, Stromatolitic, Coral Reef Systems, Ricardillo and La Molata, SE Spain,* Co-PI, \$25,000.
- 2007 – 2010 *National Science Foundation, EAR Earthscope Science, Collaborative Research: How is Strain of the Eastern California Shear Zone Transferred Across the Garlock Fault?* KU Co-PI, \$113,979.
- 2008 *National Science Foundation and University of Texas at Austin, Improved Carbonate Facies and Bulk Pore Volume Mapping Using Cross Well Tomography.* Subaward to PI Tsoflias, \$24,421.
- 2007 – 2008 *Kansas University Transportation Research Institute, Development of Three-Dimensional Full Wave Field Seismic Imaging Technology for Transportation Infrastructure Projects,* PI, \$68,092.
- 2006 – 2008 *Kansas Department of Transportation, Use of Surface and Borehole Ground-Penetrating Radar in Geologic and Engineering Investigations of Transportation Projects,* PI, \$57,500.
- 2005 – 2007 *American Chemical Society, Petroleum Research Fund, G, Investigation of the Controls of Electromagnetic Wave Propagation Through Fractures,* PI, \$35,000.
- 2003 – 2007 *US Department of Energy, Environmental Management Science Program, Automatic Shallow 3D Seismic Imaging,* Co-PI, \$820,000.
- 2007 *The University of Kansas Office of the Vice Provost for Research, Undergraduate Research Assistantship Fund, Summer 2007,* PI, \$1,250.
- 2006 – 2007 *The University of Kansas Center for Research, General Research Fund, Imaging the Deformational History of Alluvial Fans Cut by Active Faults Using Shallow Seismic Reflection and GPR Techniques,* Co-PI, \$7,666.

- 2006 – 2007 *Saudi Aramco Oil Company*, Phase 1 – Development of 3-D Models for Basin-Floor Carbonate Reservoir Analogs, Miocene, SE Spain, Co-I, \$9,500.
- 2005 – 2007 *National Science Foundation* Field experiment to track biomass growth in a contaminated aquifer and its effect on groundwater flow, awarded as a supplement to: CAREER: Heterogeneous Reactions and Groundwater Flow in Reactive Porous Media, National Science Foundation, Co-I, \$78,088.
- 2006 *The University of Kansas Office of the Vice Provost for Research, Undergraduate Research Assistantship Fund*, Summer 2006, PI, \$1,250.
- 2005 – 2006 *ExxonMobil*, Phase 1 – Development of 3-D Models for Basin-Floor Carbonate Reservoir Analogs, Miocene, SE Spain, Co-I, \$9,500.
- 2004 – 2005 *National Science Foundation, EAR Instrumentation and Facilities*, Acquisition of a Ground Penetrating Radar System, PI, \$61,467.
- 2004 – 2005 *The University of Kansas Center for Research, New Faculty General Research Fund*, Controlled Experiment of Ground-Penetrating Radar Wavefield Transmission Through a Simulated Vertical Fracture Plane, PI, \$8,000.

Publications

I) Major peer reviewed publications (indicates student advisees; ** invited submission)*

1. Zeng C.*, Xia J., Miller R. D. and **G. P. Tsoflias**, Feasibility of Waveform Inversion of Rayleigh Waves for Shallow Shear-Wave Velocity Using Genetic Algorithm, *Journal of Applied Geophysics* (accepted for publication).
2. McGlashan M. A.*, **Tsoflias G. P.**, Devlin J. F., P. C. Schillig* and J. A. Roberts, Field GPR Monitoring of Biostimulation in Saturated Porous Media, Special Issue on Techniques of Near-Surface Seismic and Ground-Penetrating Radar Imaging, *Journal of Applied Geophysics*, 10.1016/j.jappgeo.2011.08.006 (in press).
3. Zeng C.*, Xia J., Miller R. D. and **G. P. Tsoflias**, An Improved Vacuum Formulation for Finite-Difference Modeling of Rayleigh Waves Including Surface Topography and Internal Discontinuity, *Geophysics* (in press).
4. Devlin J. F., Schillig P. C., Bowen I., Critchley C. E., Rudolph D. L., Thomson N. R., **Tsoflias G. P.** and J. R. Roberts, Applications and Implications of Direct Groundwater Velocity Measurement at the Centimeter Scale, *Journal of Contaminant Hydrology*, CONHYD-02720, doi:10.1016/j.jconhyd.2011.06.007 (in press).
5. Zeng C.*, Xia J., Miller R. D. and **G. P. Tsoflias** (2011), Application of the Multiaxial Perfectly Matched Layer to Near-Surface Seismic Modeling with Rayleigh Waves, *Geophysics*, Vol. 76, No. 3, p. T43-T52, doi:10.1190/1.3560019.
6. Schillig P. C.*, Devlin J. F., Roberts J. A., **Tsoflias G. P.** and M. A. McGlashan* (2011), Transient Heterogeneity in an Aquifer Undergoing Bioremediation of Hydrocarbons, *Ground Water*, Vol. 49, No 2, p. 184-196 doi: 10.1111/j.1745-6584.2010.00682.x.
7. Becker M. and **G. P. Tsoflias** (2010), Comparing Flux-Averaged and Resident Concentration in a Fractured Bedrock Using GPR, *Water Resour. Res.*, 46, W09518, doi:10.1029/2009WR008260.
8. Schillig P. C.*, **Tsoflias G. P.**, Roberts J. A., E.M. Patterson and J. F. Devlin (2010), Ground Penetrating Radar Observations of Enhanced Biological Activity in a Sandbox Reactor, *J. Geophys. Res. - Biogeosciences*, Special Issue on Biogeophysics, 115, G00G10, doi:10.1029/2009JG001151.

9. Sloan S. D., **Tsoulias G. P.** and D. W. Steeples (2010), Ultra-Shallow Seismic Imaging of the Top of the Saturated Zone, *Geophys. Res. Lett.*, 37, L07405, doi:10.1029/2010GL043034.
10. Sloan S. D.*, Steeples D. W. and **G. P. Tsoulias** (2009), Ultra-Shallow Imaging Using 3D Seismic Reflection Methods, *Near Surface Geophysics, Special Issue on Hydrogeophysics Methods and Processes*, Vol. 7, No. 5, p. 307-314.
11. Devlin J. F., **Tsoulias G.**, McGlashan M.* and P. Schillig* (2009), An Inexpensive Multilevel Array of Sensors for Direct Ground Water Velocity Measurement, *Ground Water Monitoring and Remediation* Vol. 29, No. 2, p. 73-77, doi:10.1111/j.1745-6592.2009.01233.x.
12. Christie M.*, **Tsoulias G. P.**, Stockli D. and R. A. Black (2009), Assessing Off-Fault Deformation at an Extensional Tectonic Setting Using 3-D GPR Imaging, *Journal of Applied Geophysics, Special Issue on Techniques of Near-Surface Seismic and Ground-Penetrating Radar Imaging*, Vol. 68, No. 1, p. 9-16, doi:10.1016/j.jappgeo.2008.10.013.
13. Vincent P. D.*, **Tsoulias G. P.**, Steeples D. W. and R. A. Black (2009), Evaluating the Effect of the Joining Platform to Seismic Data Acquired by Geophones Mounted to Rigid Media, *Journal of Applied Geophysics*, Vol. 68, No. 2, p. 146-150, doi:10.1016/j.jappgeo.2008.10.010.
14. **Tsoulias G. P.**** (2008), GPR Imaging of Dual-Porosity Rocks: Insights to Fluid Flow, *The Leading Edge*, November 2008 Special Issue on Near-Surface Geophysics, Vol. 27, No. 11, p. 1436-1445.
15. **Tsoulias G. P.** and M. Becker (2008), Ground Penetrating Radar Response to Fracture Fluid Salinity: Why Lower Frequencies are Favorable for Resolving Salinity Changes, *Geophysics*, Vol. 73, No. 5, p. J25-J30, doi:10.1190/1.2957893.
16. Eslick R.*, **Tsoulias G. P.** and D. W. Steeples (2008), Field Investigation of Love Waves in Near-Surface Seismology, *Geophysics*, Vol. 73, No. 3, p. G1-G6, doi:10.1190/1.2901215.
17. Horgan H. J., Anandkrishnan S., Alley R. B., Peters L. E., **Tsoulias G. P.**, Voigt D. E., and J. P. Winberry (2008), Complex Fabric Development Revealed by Englacial Seismic Reflectivity: Jakobshavn Isbræ, Greenland, *Geophys. Res. Lett.*, 35, L10501, doi:10.1029/2008GL033712.
18. Sloan S. D.*, **Tsoulias G. P.** and D. W. Steeples (2007), Shallow Seismic AVO Variations Related to Partial Water Saturation During a Pumping Test, *Geophys. Res. Lett.*, 34, L22405, doi:10.1029/2007GL031556.
19. Sloan S. D.*, **Tsoulias G. P.**, Steeples D. W. and P. D. Vincent* (2007), High-Resolution Ultra-Shallow Subsurface Imaging by Integrating Near-Surface Seismic Reflection and Ground-Penetrating Radar Data in the Depth Domain, *Journal of Applied Geophysics*, Vol. 62, No. 3, p. 281-286 doi:10.1016/j.jappgeo.2007.01.001.
20. **Tsoulias G. P.** and A. Hoch* (2006), Investigating Multi-Polarization GPR Wave Transmission Through Thin Layers: Implications for Vertical Fracture Characterization, *Geophys. Res. Lett.*, 33, L20401, doi:10.1029/2006GL027788.
21. **Tsoulias G. P.**, Steeples D. W., Czarnecki G.*, Sloan S. D.* and R. C. Eslick* (2006), Automatic Deployment of a 2-D Geophone Array for Efficient Ultra-Shallow Seismic Imaging, *Geophys. Res. Lett.*, 33, L09301, doi:10.1029/2006GL025902.
22. Vincent P. D.*, **Tsoulias G. P.**, Steeples D. W. and S. D. Sloan* (2006), Fixed-Source and Fixed-Receiver Walkaway Seismic Noise Tests: A field Comparison, *Geophysics*, Vol. 71, No. 6, p. W41-W44.
23. **Tsoulias G. P.**, Van Gestel J. P., Stoffa P., Blankenship D. and M. Sen, (2004) Vertical Fracture Detection by Exploiting the Polarization Properties of GPR Signal, *Geophysics*, Vol. 69, No. 3, p. 803-810.

24. **Tsoflias G. P.**, Halihan T. and J. M. Sharp, Jr. (2001), Monitoring Pumping Test Response in a Fractured Aquifer Using Ground Penetrating Radar, *Water Resour. Res.*, Vol. 37, No. 5, p.1221-1229.
25. Wilson C. R., **Tsoflias G. P.**, Bartelmann M. and J. Phillips (1997), A High Precision Aeromagnetic Survey Near the Glen Hummel Field in Texas; Identification of Cultural and Sedimentary Anomaly Sources, *The Leading Edge*, Vol. 16, No. 1, p. 37-42.
26. **Tsoflias G. P.**, Bollinger G. A. and J. K. Costain (1995), Common Cyclicities in the Seismicity and Water Level Fluctuations at the Charlevoix Seismic Zone of the St. Lawrence River, Quebec, Canada, *Journal of Geodynamics*, Vol. 19, No. 2, p. 117-139, doi:10.1016/0264-3707(94)00008-J.
27. **Tsoflias G. P.** (1991), A Note on the Goochland County, Virginia, Earthquake of March 15, 1991, *Seismological Research Letters*, Vol. 62, No. 3-4, p. 225-231.

II) Minor publications and refereed conference transactions

28. **Tsoflias G. P.**** and D. W. Steeples (2011), High Resolution Characterization of the Near Surface: GPR and Seismic Reflection Methods, 73rd EAGE Conference Workshop, Vienna, Austria, May 22-26, 2011 (3 pages).
29. Hoch. A. M.*, Velez, J. A.*, **Tsoflias G. P.**, Stearns L. A. and C. J. van der Veen (2011), Multi-Channel Coherent Radar Depth Sounding of Jakobshavn Isbræ and its Catchment, 2011 IEEE Radar Conference, Kansas City, Missouri, May 23-27, 2011, p 1135-1137.
30. **Tsoflias G. P.** (2010), Use of Surface and Borehole Ground Penetrating Radar in Geologic and Engineering Investigations of Transportation Projects, Kansas Dept. of Transportation Report No. K-TRAN: KU-06-8, pages 87.
31. **Tsoflias G. P.** and R. Henthorne (2010), Borehole GPR Detection of Subsurface Voids at Kansas Highway 69 Pittsburg Bypass, Symposium on Kansas Geophysics in the 21st Century, Wichita, Kansas USA, October 27-29, 2010 (4 pages).
32. Miller B.*, **Tsoflias G. P.** and D. Steeples (2010), New Innovations in Near-Surface 3-D Acquisition, Symposium on Kansas Geophysics in the 21st Century, Wichita, Kansas USA, October 27-29, 2010 (4 pages).
33. Knoph K.*, **Tsoflias G.**, Franseen E and R. Goldstein (2010), Ground-Penetrating Radar Imaging of Facies Distribution in a Carbonate Reservoir Analog, Symposium on Kansas Geophysics in the 21st Century, Wichita, Kansas USA, October 27-29, 2010 (4 pages).
34. Miller B.*, **Tsoflias G. P.** and D. Steeples (2010), 3-D Design for a Near-Surface Seismic Reflection Investigation, Society of Exploration Geophysicists 80th Annual Meeting Transactions p. 1993-1998.
35. Sloan S. D., **Tsoflias G. P.**, Steeples D. W. and J. R. McKenna (2010), Ultra Shallow Seismic Imaging of the Top of the Saturated Zone, Society of Exploration Geophysicists 80th Annual Meeting Transactions p. 1960-1964.
36. Godio A., **Tsoflias G. P.**, Piatti C., Rege R. and V. Socco (2010), Joint Use of Seismic Surface Waves and Multioffset GPR for Sandy Soil Characterization, Society of Exploration Geophysicists 80th Annual Meeting Transactions p. 1887-1891.
37. Zahm C. and **G. Tsoflias** (2010), Interwell Calculation of Permeability in Vuggy Pores Using Ground-Penetrating Radar and Cross-Hole Tomography within Albian Carbonates Reservoir Analogs, Pipe Creek, Texas, Gulf Coast Association of Geological Societies Transactions v. 60, p. 853.
38. Miller B.*, **Tsoflias G. P.** and D. Steeples (2010), Advancements in Near-Surface Seismic Reflection Acquisition, PhD Students and Young Scientists Conference, Warsaw, Poland, September 13-16, 2010 (5 pages).

39. Cheng K.*, Leuschen C. and **G. Tsoflias** (2010), Investigation of Radar Subsurface Sounding Through Seasonal Cycles Collected by Mars Shallow Radar (SHARAD) in the South Polar Area, IEEE 30th International Geoscience and Remote Sensing Symposium (IGARSS), Honolulu, Hawaii, USA, July 25-30, 2010 (4 pages).
40. Devlin J. F., Schillig P. C., Bowen I., Rudolph D. L., Thomson N. R., **Tsoflias G. P.** and J. R. Roberts (2010), Applications and Implications of Direct Groundwater Velocity Measurement at the Centimeter Scale, GQ10: Groundwater Quality Management in a Rapidly Changing World, Proc. 7th International Groundwater Quality Conference, Zurich, Switzerland, June 13-18, 2010, p. 50-53.
41. Miller B.*, **Tsoflias G. P.** and D. W. Steeples (2009), Automated Geophone Deployment on Pavement for High Resolution Seismic Reflection Investigations in Support of Transportation Infrastructure Projects, Society of Exploration Geophysicists 79th Annual Meeting Transactions, p. 1430-1434.
42. Zeng C.*, Xia J., Miller R. D. and **G. P. Tsoflias** (2009), Modeling Results on Detectability of Shallow Tunnels Using Rayleigh Wave Diffraction, Society of Exploration Geophysicists 79th Annual Meeting Transactions, p. 1425-1429.
43. Sloan S. D., Steeples D. W. and **G. P. Tsoflias** (2009), Automating the Acquisition of 3D Near-Surface Seismic Reflection Data, Society of Exploration Geophysicists 79th Annual Meeting Transactions, p. 1315-1319.
44. Ivanov J., **Tsoflias G. P.**, Miller R. M., and J. Xia (2009), Practical Aspects of MASW Inversion Using Varying Density, 22nd Symposium on the Application of Geophysics to Engineering and Environmental Problems Transactions, p. 171-177.
45. **Tsoflias G. P.**, Ivanov J., Anandkrishnan S. and R. M. Miller (2008), Use of Active Source Seismic Surface Waves in Glaciology, 21st Symposium on the Application of Geophysics to Engineering and Environmental Problems Transactions, p. 1240-1243.
46. Ivanov J., Miller R. M., and **G. P. Tsoflias** (2008), Some Practical Aspects of MASW Analysis and Processing, 21st Symposium on the Application of Geophysics to Engineering and Environmental Problems Transactions, p. 1186-1198.
47. Sloan S. D.*, Steeples D. W., and **G. P. Tsoflias** (2008), Imaging a Shallow Paleo-Channel Using 3D Ultra-Shallow Seismic Reflection Methods, 21st Symposium on the Application of Geophysics to Engineering and Environmental Problems Transactions, p. 568-576.
48. **Tsoflias G. P.** and Becker M. W. (2007), Multi-frequency Investigation of GPR Amplitude and Phase Response to Fracture Fluid Salinity, Society of Exploration Geophysicists 77th Annual Meeting Transactions, p. 1157-1160.
49. Eslick R.*, **Tsoflias G. P.** and Steeples D. W. (2007), Field investigation of Love waves in near-surface seismology, Society of Exploration Geophysicists 77th Annual Meeting Transactions, p. 1217-1221.
50. Sloan S. D.*, **Tsoflias G. P.** and Steeples D. W. (2007), Seismic AVO variations related to partial water saturation during a pumping test, Society of Exploration Geophysicists 77th Annual Meeting Transactions, p. 1212-1216.
51. McGlashan M. A.*, **Tsoflias, G. P.**, Schillig, P. C.* and J. F. Devlin (2006), Estimating Groundwater Flow Velocity Using Borehole GPR and Point Velocity Probes, Proceedings of the Eleventh International Conference on Ground Penetrating Radar, June 19-22, 2006, Columbus Ohio. HYD.3, p. 1-5.
52. Czarnecki G. P.*, **Tsoflias G. P.**, Steeples D. W., Sloan S. D.* and R. C. Eslick* (2006), An Example of Automated 3D Ultra-Shallow Seismic Acquisition, Society of Exploration Geophysicists 76th Annual Meeting Transactions, p. 1461-1465.

53. Sloan S. D.*, **Tsoflias G. P.** and Steeples D. W., (2006), Frequency Effects of the Partially Water-Saturated Zone Thickness on Shallow Seismic Reflection Data, Society of Exploration Geophysicists 76th Annual Meeting Transactions, p. 1362-1366.
54. **Tsoflias G. P.** and A. Hoch* (2005), Relating GPR Signal Response to Simulated Vertical Fracture Properties, Society of Exploration Geophysicists 75th Annual Meeting Transactions, p. 1168-1171.
55. **Tsoflias G. P.**, Steeples D, and R. Black (2005), Hydrogeophysics research at the University of Kansas: EEGS Publication, Fast Times, Vol. 10, No. 1, p. 27.
56. Miller R. D., Xia J., Steeples D., Black R., and **G. P. Tsoflias** (2005), Applied research in high-resolution seismic reflection at KU: EEGS Publication, Fast Times, Vol. 10, No. 1, p. 26-27.
57. Healey J. M., **Tsoflias G. P.**, Steeples D. W., Vincent P.*, Sloan S. D.*, and C. D. McElwee (2005), Geophysical Techniques Applied to a Stream-Aquifer System, Kansas Geological Survey Open-File Report, No. 2005-11.
58. Sloan S. D.*, Vincent P. D.*, **Tsoflias G. P.** and D. W. Steeples (2005), Combining Near-Surface Seismic Reflection and Ground-Penetrating Radar in the Depth Domain, Society of Exploration Geophysicists 75th Annual Meeting Transactions, p. 1208-1211.
59. Vincent P. D.*, Steeples D. W., **Tsoflias G. P.** and S. D. Sloan* (2005), Two Approaches to Noise Tests, Society of Exploration Geophysicists 75th Annual Meeting Transactions, p. 1180-1183.
60. Rademacker T., Miller R., Xia J., Black R. and **G. Tsoflias** (2005), Enhancing the Vibroseis Technique Through Equipment Noise Reduction and Optimizing the Weighted Sum Signal, Society of Exploration Geophysicists 75th Annual Meeting Transactions, p. 33-36.
61. **Tsoflias G. P.**, Halihan T. and M. A. Muldoon (2004), Fracture Fluid Flow Properties Investigation Using GPR and Hydraulic Testing Methods, Proceedings of the Tenth International Conference on Ground Penetrating Radar, June 21-24, 2004, Delft, The Netherlands, E. Slob et al. (eds), Vol. II, p. 521-524.
62. Vincent P. D.*, Blair J. D., Steeples D. W., and **G. P. Tsoflias** (2004), Effect of Orientation of Hollow-Bar-Mounted Geophones on Airwave Coherency, Society of Exploration Geophysicists 74th Annual Meeting Transactions, p. 1345-1348.
63. **Tsoflias G.P.** (2003), Investigating Fluid Flow Properties of Fractured Formations Using Ground-Penetrating Radar, Society of Exploration Geophysicists 73rd Annual Meeting Transactions, p. 1166-1169.
64. Sharp J. M., Jr., Halihan T., Uliana M. M, **Tsoflias G. P.**, Landrum M. T. and R. Marrett (2000), Predicting Fractured Rock Hydrogeological Parameters from Field and Laboratory Data, Proceedings of the XXX IAH Congress on Groundwater: Past Achievements and Future Challenges, Cape Town, South Africa, Nov 26-Dec 1, 2000 , O. Sililo et al. (eds), A.A. Balkema, Rotterdam, p. 319-324.
65. **Tsoflias G. P.**, Van Gestel J. P., Stoffa P. and M. Sen, (1999) Detection of Vertical Fractures in Geologic Formations Using the Polarization Properties of Ground-Penetrating Radar Signal, Society of Exploration Geophysicists 69th Annual Meeting Transactions, p. 566-570.
66. **Tsoflias G. P.** and J. M. Sharp, Jr. (1998), Three-Dimensional Hydrogeologic Characterization of Fractured Carbonate Aquifers Using Ground-Penetrating Radar, Gulf Coast Association of Geological Societies Transactions, v XL VIII 1998, p. 439-447.

III) Conference abstracts

67. **Tsoflias G. P.**, Baker M.* and M. W. Becker (2011), Assessing GPR Signal Polarization for 3D Imaging of Fracture Flow Channels, Abstract NS-----, Fall AGU Meeting, San Francisco, Calif., 5-9 Dec (accepted).

68. Hoch A. M.*, Velez J. A.*, **Tsoulias G. P.**, Stearns L. A. and C. J. Van der Veen (2011), Improved Characterization of the Jakobshavn Isbræ Catchment Region through Analysis of Radar Depth Sounder Data, Abstract C-----, Fall AGU Meeting, San Francisco, Calif., 5-9 Dec (accepted).
69. Arntsen A. E.*, Godaire T. P.*, **Tsoulias G. P.**, Stearns L. A., Van der Veen C. J. and A. M. Hoch* (2011), Internal Ice layer Mapping and Geophysical Analysis of Jakobshavn Glacier, Greenland, Abstract C-----, Fall AGU Meeting, San Francisco, Calif., 5-9 Dec (accepted).
70. **Tsoulias G. P.**, Becker M. W. and M. Baker* (2011), Monitoring of Flow in Fractured Rock Using Ground Penetrating Radar, National Ground Water Association Focus Conference on Fractured Rock and Eastern Groundwater Regional Issues, Burlington, Vermont, September 26-27, 2011.
71. **Tsoulias G. P.** and M. W. Becker (2011), GPR Imaging of Channeled Flow in Fractured Bedrock, DOE Subsurface Biogeochemical Research 6th Annual PI Meeting, Washington D.C., April 26-28, 2011.
72. Godio A., Franco D., Basiricò S., Crosta G. B., Frattini P., Villa A. and **G. Tsoulias** (2011) Hydrogeophysical Characterization of a Complex Aquifer in Calcareous and Gypsum Formations, Geophysical Research Abstracts Vol. 13, EGU2011-10358-1, 2011, EGU General Assembly 2011.
73. Zeng C.*, Xia J., Miller R. D. and **G. P. Tsoulias** (2011), Application of the Multiaxial Perfectly Matched Layer to Near-Surface Seismic Modeling with Rayleigh waves, 24th Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), Charleston, South Carolina, April 10-14, 2011.
74. Godio A.***, **Tsoulias G. P.**, Socco V., Piatti C., Rege R. and A. Arato (2011), Seismic Surface Waves and Multioffset GPR for Sandy Soil Characterization, 24th Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), Charleston, South Carolina, April 10-14, 2011 [invited presentation of the 2010 SEG talk].
75. Knoph K.*, Franseen E., Goldstein R., **Tsoulias G. P.** and Z. Li (2011), GPR Constraints on 3D Stratigraphic Architecture and Porosity in Microbialite-Oolite Sequences, Upper Miocene, SE Spain, American Association of Petroleum Geologists Annual Convention Transactions, Houston, Texas, April 10-13, 2011.
76. **Tsoulias G. P.** (2011), Ground Penetrating Radar High Resolution 3-D Imaging of Dual Porosity - Permeability Systems: Imaging Carbonate Lithofacies, Flow Units and Flow Conduits, 2011 Annual Review Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, March 29-31, 2011 (4 pages).
77. **Tsoulias G. P.** (2011), Imaging Fluid Flow and Transport in Discrete Fractures using Ground Penetrating Radar, 2011 Annual Review Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, March 29-31, 2011 (4 pages).
78. Knoph K.*, **Tsoulias G. P.**, Franseen E. and R. Goldstein (2011), Integrating Ground-Penetrating Radar and Field Relationships to Evaluate Porosity and Stratigraphic Models in Upper Miocene Microbial-Oolitic Carbonates, SE Spain, 2011 Annual Review Meeting of the Kansas Interdisciplinary Carbonate Consortium, Lawrence, Kansas, March 29-31, 2011 (4 pages).
79. **Tsoulias G. P.**, Schillig P. C.*, McGlashan M. A., Roberts J. A. and J. F. Devlin (2010), Elucidating GPR Response to Biological Activity: Field and Laboratory Experiments, Abstract NS33A-04 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
80. Cherukupally A, Freund F. T; Vanderbilt V. C, **Tsoulias G. P.** and R. Dahlgren (2010), Stress-Activated Electromagnetic Emission and Reflection from Gabbro and Gabbro-Diorite, Abstract NH31A-1335 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
81. **Tsoulias G. P.****, Schillig P. C.*, McGlashan M. A., Roberts J. A. and J. F. Devlin (2010), Field and Laboratory GPR Monitoring of Biological Activity in Saturated Porous Media, Geophysical Research Abstracts Vol. 12, EGU2010-6415-1, 2010, EGU General Assembly 2010.

82. **Tsoflias G. P.**, Ivanov J., Anandakrishnan S., Horgan H. and L. Peters (2010), Lateral Variability in Firm Properties Revealed by Active Source Seismic Surface Waves, Geophysical Research Abstracts Vol. 12, EGU2010-6445, 2010, EGU General Assembly 2010.
83. Dahlgren R., Williams C., Freund F. T., Vanderbilt V. C., Bleier T. and **G. Tsoflias** (2010), Measurement of Electromagnetic and RADAR Effects During Large-Scale Rock Stress/Fracture Experiments (2010), Workshop on Electromagnetic Signals associated with Earthquakes & Volcanoes, Chapman University, Orange, CA, October 3-6, 2010
84. Velez J. A.*, **Tsoflias G. P.**, and S. Anandakrishnan (2010), Evaluating Ice Basal Conditions at Jakobshavn Glacier Using Seismic AVO Methods, SACNAS National Conference, Anaheim, California, USA, Sept. 30 – Oct. 3, 2010.
85. Devlin J. F., Schillig P.C.*, Bowen I., Tsoflias G. P., Rudolph D. L., Thomson N. R., and E. Patterson (2010) Advances in Tools for Detailed Aquifer Characterization, Hydrocarbon Summit, University of Waterloo, Waterloo, Ontario, Canada, July 20 2010.
86. Becker M. and **G. P. Tsoflias** (2010), What Does Resident Concentration Mean at the Field Scale?, presented at “Thirty years of stochastic subsurface hydrology: Where do we stand and what are the emerging challenges?” Centro Stefano Franscini Conference, Monte Verità, Ascona, Switzerland, June 27 - July 2, 2010.
87. Becker M. and **G. P. Tsoflias** (2010), Hydrogeophysical Characterization and Monitoring of Fractured Bedrock (2010), Groundwater Resources Association of California Symposium on Geophysics at the Beach, Santa Anna, California, May 25, 2010.
88. **Tsoflias G. P.**** (2010), GPR Imaging of Flow in Discrete Fractures: Implications to Geothermal Resources Development, Symposium on Geothermal Energy for Sustainable Development: The Necessity of a Multidisciplinary Approach, Turin, Italy, February 9, 2010.
89. Becker M. and **G. P. Tsoflias** (2010), Measuring Channeled Flow in Fractured Bedrock: Application of Harmonic Hydraulic Interference Testing, DOE ERSP 5th Annual PI Meeting, Washington D.C., March 29-31, 2010.
90. Velez J. A.*, **Tsoflias G. P.** and S. Anandakrishnan (2009), Using Seismic Anisotropy to Detect Mean Ice Crystal Orientation in the Jakobshavn Glacier, Fall AGU Meeting EOS Trans. AGU, 90(52), Fall Meet. Suppl., Abstract C23C-0517.
91. Hoch A.*, Velez J. A.*, Nardone A.*, Stearns L. and **G. P. Tsoflias** (2009), Three-dimensional Visualization of the Jakobshavn Isbrae Catchment Region, Fall AGU Meeting EOS Trans. AGU, 90(52), Fall Meet. Suppl., Abstract C31C-0458.
92. Williams C., **Tsoflias G.**, Cyr G., Dahlgren R. and F. Freund (2009), Radar Reflectivity Changes of Rock Surfaces due to Heat-Activated Charge Carriers: Contributing to the Understanding of the Magellan Venus Radar Reflectivity Data, EOS Trans. AGU, 90(52), Fall Meet. Suppl., Abstract P33A-1277.
93. Velez J. A.*, **Tsoflias G. P.**, Anandakrishnan S., Horgan H., Peters L., Voigt D. and P. Winberry (2009), Determining Glacier Ice Crystal Orientation Using Seismic Anisotropy, SACNAS National Conference, Dallas, Texas USA, October 15-18, 2009.
94. Freund F., Williams C., **Tsoflias G.**, Dahlgren R., McMillan M. and J. Keefner (2009), Non-Thermal IR Signature Prior to Earthquakes and When Volcanoes Wake Up, HypsIRI (Hyperspectral Infrared Imager) Workshop, Pasadena CA USA, August 11-13, 2009.
95. Zahm C., **Tsoflias G.**, Peterson K.* and X. Janson (2009), Shallow Water Injection Monitoring in Vuggy Pores Using Ground-Penetrating Radar and Cross-Hole Tomography, Pipe Creek, Texas, American Association of Petroleum Geologists Annual Convention Transactions, Denver, Colorado, June 7-10 , 2009.
96. Lipinski C. J., Goldstein R. H., Franseen E. K. and **G. P. Tsoflias** (2009), Oolite-Microbialite-Coral Reef 3-D Reservoir Analog Model of the Miocene Terminal Carbonate Complex, SE Spain,

- American Association of Petroleum Geologists Annual Convention Transactions, Denver, Colorado, June 7-10, 2009.
97. **Tsoflias G. P.**, Ivanov J., Anandakrishnan S., Horgan H., Peters L., Voigt D. and P. Winberry (2008), Firm and Shallow Ice Profiling at Jakobshavn Glacier Using Dispersed Seismic Surface Waves, EOS Trans. AGU, 89(53), Fall Meet. Suppl., Abstract C11D-0528.
 98. Velez J. A.*, **Tsoflias G. P.**, Anandakrishnan S., Horgan H., Peters L., Voigt D. and P. Winberry (2008), Evidence of Seismic Anisotropy Detected on Jakobshavn Glacier, EOS Trans. AGU, 89(53), Fall Meet. Suppl., Abstract C11D-0540.
 99. Peters L., Anandakrishnan S., Horgan H., Winberry P., Voigt D. and **G. Tsoflias**, (2008), Constraint on Basal Conditions in the Onset Region of Jakobshavn Isbrae, Greenland, through Seismic Amplitude Variation with Offset (AVO) Analysis, EOS Trans. AGU, 89(53), Fall Meet. Suppl., Abstract C11A-0474.
 100. Becker M. and **G. P. Tsoflias** (2008), GPR-Measured Tracer Breakthrough in a Sandstone Bedding-Plane Fracture, EOS Trans. AGU, 89(53), Fall Meet. Suppl., Abstract NS41A-08.
 101. Schillig P. C.*, Devlin J. F., Roberts J. A. and **G. P. Tsoflias** (2008), The Effects of Microbial Activity on the Hydrogeology of a Biostimulated Aquifer, 7th International Symposium for Subsurface Microbiology, Shizuoka, Japan, November 16-21.
 102. Schillig P. C.*, **Tsoflias G. P.**, Roberts J. A., Devlin J. F. and E. M. Patterson (2008), Time-lapse GPR Monitoring of Enhanced Biological Activity in a Sandbox Reactor, AGU Chapman Conference on Biogeophysics, Portland, Maine USA, October 13-16.
 103. Devlin, J. F., Schillig P.*, **Tsoflias G.**, McGlashan M.* and J. Roberts (2008), A new Tool for Groundwater Velocity Measurement and its Applications. Invited for presentation at the 2008 North American Environmental Field Conference and Exposition: Advances in Environmental Site Characterization Sampling and Monitoring Technology, Tampa, Florida, Jan. 14-16.
 104. **Tsoflias G. P.****, Stockli D. F., Christie M. W.* and R. A. Black (2007), Assessing Off-Fault Deformation at an Extensional Tectonic Setting Using 3-D GPR, Geophysical Research Abstracts, Vol. 9, 08915, 2007 SRef-ID: 1607-7962/gra/EGU2007-A-08915.
 105. **Tsoflias G. P.****, Hoch A.*, Gifford C. M.*, Agah A., Ivanov J., Anandakrishnan S., Horgan H., Peters L., Voigt D. and P. Winberry (2007), Advancing Active Source Seismic Methods for Exploration of the Cryosphere, EOS Trans. AGU, 88(52), Fall Meet. Suppl., Abstract NS14A-03.
 106. **Tsoflias G. P.**, Becker M. W. and S. R. Bourque (2007), Relating GPR Signal Response to Fracture Fluid Salinity, EOS Trans. AGU, 88(52), Fall Meet. Suppl., Abstract H44A-05.
 107. Schillig P. C.*, Devlin J.F., **Tsoflias G. P.**, Patterson E. M., Roberts J. A. and M. A. McGlashan* (2007), Field and Laboratory Investigations of Enhanced Biological Activity Influencing Groundwater Velocity and Electromagnetic Wave Propagation, EOS Trans. AGU, 88(52), Fall Meet. Suppl., Abstract NS11B-0497.
 108. Patterson E. M., Schillig P. C.*, **Tsoflias G. P.**, Devlin J.F. and J.A. Roberts (2007), A Laboratory Tank Experiment to Investigate the Effects of Microbial Growth on Water Flow and GPR Wave Propagation, EOS Trans. AGU, 88(52), Fall Meet. Suppl., Abstract NS11B-0496.
 109. Black R. A., Christie M. W.*, **Tsoflias G. P.** and D. F. Stockli (2007), Near-Surface Seismic Reflection and GPR Imaging of the Active Emigrant Peak Fault, Fish Lake Valley, NV, EOS Trans. AGU, 88(52), Fall Meet. Suppl., Abstract NS23A-01.
 110. Hoch A.*, Martinez A.* and **G. Tsoflias** (2007), Three-Dimensional Mapping and Visualization of Airborne Polar Radar Data, EOS Trans. AGU 88(23), Jt. Assem. Suppl., Abstract GC23A-07.
 111. Devlin J. F., Schillig P. C.*, McGlashan M. A.*, **Tsoflias G. P.** and J. A. Roberts (2007), Investigating Transient Heterogeneity in a Bioactive Plume Using GPR and PVPs, EOS Trans. AGU 88(23), Jt. Assem. Suppl., Abstract NS44A-03.

112. Schillig P. C.*, McGlashan M. A.*, Devlin J. F., **Tsoflias G. P.** and J. A. Roberts (2007), Using Groundwater Point Velocity Probes and Ground Penetrating Radar to Investigate Microbially Mediated Changes in Flow Properties of a Contaminated Aquifer, EOS Trans. AGU 88(23), Jt. Assem. Suppl., Abstract NS51A-02.
113. Devlin J. F., Schillig P. C.*, McGlashan M. A.*, **Tsoflias G. P.** and D. M. Mackay (2007), Transient Heterogeneity Below the Water Table and Effects on Contaminant Plumes, 2007 Ground Water Summit, National Ground Water Association, Albuquerque, New Mexico, April 29-May 3.
114. Schillig P. C.*, Devlin J. F., N. Kinnebrew, McGlashan M. A.* and **G. P. Tsoflias** (2007), Development and Field Application of a Tool to Directly Measure Centimeter-Scale Groundwater Velocities with Implications for Transient Heterogeneity in Contaminated Aquifers, 2007 Ground Water Summit, National Ground Water Association, Albuquerque, New Mexico, April 29-May 3.
115. **Tsoflias G. P.**, Devlin J. F., Roberts J., McGlashan M. A.*, Schillig P. C.*, Barker J. F., Naas C., Endres A. and S. Piggott (2006), Hydrogeophysical Monitoring of a Homogeneous Aquifer Response to a Modern Gasoline Fuel Contaminant Plume: Preliminary Observations, Society of Exploration Geophysicists 2006 Hydrogeophysics Workshop, 31 July – 2 August, Vancouver, BC Canada.
116. Christie M. W.*, **Tsoflias G. P.**, Black R. A. and D. F. Stockli (2006), Ground Penetrating Radar Imaging of the Emigrant Peak Fault Zone and Alluvial Fan, EOS Trans. AGU, 87(52), Fall Meet. Suppl., Abstract NS41A-1123.
117. Black R. A., Christie M. W.*, **Tsoflias G. P.** and D. F. Stockli (2006), Shallow Seismic Reflection Study of Recently Active Fault Scarps, Mina Deflection, Western Nevada, EOS Trans. AGU, 87(52), Fall Meet. Suppl., Abstract NS41A-1122.
118. Gifford C.*, Agah A. and **G. P. Tsoflias** (2006), Hybrid Streamers for Polar Seismic, EOS Trans. AGU, 87(52), Fall Meet. Suppl., Abstract C41B-0335.
119. Jarvis J.* and **G. P. Tsoflias** (2006), GPR Waves at the Interface: An Investigation of Electromagnetic Wave Polarization Attributes for Fracture Characterization, EOS Trans. AGU, 87(36), Jt. Assem. Suppl., Abstract NS31A-05.
120. Schillig P. C.*, Devlin J. F., McGlashan M. A. and **G. P. Tsoflias** (2006), A Novel Approach for Aquifer Characterization Based on Direct Groundwater Velocity Measurements and GPR, The Geological Society of America Annual Meeting, 22-25 October, GSA Abstracts with Programs Vol. 38, No. 7.
121. Devlin J. F., Schillig P. C.*, McGlashan M. A. and **G. P. Tsoflias** (2006), Direct Groundwater Velocity Estimates from PVP and GPR Measurements, The Geological Society of America Annual Meeting, 22-25 October, GSA Abstracts with Programs Vol. 38, No. 7.
122. **Tsoflias G. P.**, Steeples D. W., Czarnecki G.*, Sloan S. D.* and R. Eslick* (2005), 3-D Autojuggie: Automating Deployment of Two-Dimensional Geophone Arrays for Efficient Ultra-Shallow Seismic-Reflection Surveys, EOS Trans. AGU, 86(52), Fall Meet. Suppl., Abstract U21B-0815.
123. McGlashan M. A.*, **Tsoflias G. P.**, Devlin J. F. and P. C. Schillig* (2005), Characterizing High Resolution Aquifer Heterogeneities Using Borehole Radar and Multi-Level Point Velocity Probes, EOS Trans. AGU, 86(52), Fall Meet. Suppl., Abstract H41F-0478.
124. McGlashan M. A.*, Devlin J. F. and **G. P. Tsoflias** (2005), High resolution groundwater velocity monitoring using multi-level point velocity probes, 50th Midwest Groundwater Conference, Urbana , Illinois – Nov. 1-3, 2005.
125. McGlashan M. A.*, P. Schillig*, Devlin J. F. and **G. P. Tsoflias** (2005), Geophysics Meets Hydrogeology While Characterizing the Heterogeneity in the World's Most Homogeneous Aquifer, 14th Annual Kansas Hydrology Meeting, Topeka, Kansas – Nov. 18, 2005.
126. **Tsoflias G. P.** and A. Hoch* (2004), Towards the Quantitative Characterization of Fractures Using GPR, EOS Trans. AGU, 85(47), Abstract H13G-05.

127. **Tsoflias, G. P.** (2004), Ground-Penetrating Radar (GPR) Methods in Environmental Geoscience, AEG regional meeting on State of the practice site investigation methods to support design, October 23, 2004, Kansas City, KS.
128. Vincent P. D.*, **Tsoflias G. P.**, Sloan S. D.* and D. W. Steeples (2004), Processing Ultra-Shallow Reflection Data in Areas with Laterally Varying Velocities, AGU, Fall Meeting, EOS Trans. AGU, 85(47), Abstract H14C-05.
129. Blair, J. D., Clark J., Steeples D. W., Vincent P. D.*, and **G. P. Tsoflias** (2004), Reducing the cost of shallow seismic data acquisition: A comparative analysis of the seismic response of rigidly interconnected geophones attached to steel media of various shapes, 227th meeting of the American Chemical Society, March 28-April 1, Anaheim, CA, ENVR 74.
130. Healey J, **Tsoflias G. P.**, Steeples D. W., Vincent P.*, Sloan S. D.*, and C. D. McElwee (2003), Geophysical Techniques Applied to a Stream-Aquifer System, Eos Trans. AGU, 84(47), Abstract H31B-0466.
131. Halihan T., Zahm C. K., **Tsoflias G. P.**, Mace R. E and J. M. Sharp, Jr. (1999), Use of Outcrop and GPR Data to Interpret Flow in Karst Aquifers: Recent Results from the University of Texas, 1999 AKMA Conference Transactions.
132. **Tsoflias G. P.**, J. M. Sharp, Jr. and M. A. Muldoon (1998), Ground-Penetrating Radar Investigation of the Byron Dolomite: An Integrated Approach to Aquifer Characterization, 1998 SEPM Research Conference Transactions.
133. Phillips J. D., Carpenter D., Bartelemann M., Murray P., **Tsoflias G.**, McConnell T., Saul S. and G. Kuhlman (1995), High resolution aeromagnetic mapping of oil/ gas field fault zones in Wilson/ Karnes counties, Texas, Eos, Trans. AGU, 76(46), p. 175.
134. **Tsoflias G. P.**, G. A. Bollinger and J. K. Costain (1990), Cyclicities in the Seismicity of the Charlevoix Zone in the St. Lawrence Valley, Seismological Society of America, Eastern Section, 62nd Annual Meeting, Seismological Research Letters, Vol. 61, No. 3, p. 163.

Invited Presentations, Workshops and Short Courses

- 2010 Seismic Interpretation and Attribute Analysis, Politecnico di Torino, Italy, April 22-28-29, 2010 (Short Course in Exploration Geophysics).
- 2010 Active Source Seismic Methods for Exploration of the Cryosphere, Fondazione Montagna Sicura Val D'Aosta, Italy, February 12, 2010.
- 2009 High-Resolution GPR and Seismic Imaging of the Subsurface: From Fractures and Bacteria to Ice Sheets, Politecnico di Torino, Italy, December 16, 2009.
- 2009 Ground-Penetrating Radar Monitoring of Hydrologic Processes: from Flow in Fractures to Enhanced Biodegradation, University of Lausanne, Switzerland, September 25, 2009.
- 2008 Ground Penetrating Radar Imaging of Dual Porosity Formations: Insights to Fluid Flow Properties, Workshop on Groundwater Treatment Zones, The University of Kansas, August 7-8, 2008.
- 2008 Υψηλής Ευκρίνειας Γεωφυσική Απεικόνιση του Υπεδάφους Χρησιμοποιώντας Γεωραντάρ και Σεισμικές Μεθόδους, (High Resolution Geophysical Imaging of the Subsurface Using Georadar and Seismic Methods), Technical University of Crete, Chania Greece, June 12, 2008.
- 2008 High-Resolution GPR and Seismic Imaging of the Subsurface: From Fractures and Bacteria to Ice Sheets, Oklahoma State University, Stillwater, OK, January 18, 2008.
- 2008 High-Resolution GPR and Seismic Imaging of the Subsurface: From Fractures and Bacteria to Ice Sheets, The University of Kansas, Lawrence, KS, January 17, 2008.
- 2007 Hydrogeophysical Investigation of the Near-Surface Using GPR and Seismic Methods, University of Texas Bureau of Economic Geology, Austin, TX, September 28, 2007.
- 2006 Hydrogeophysical Investigation of the Near-Surface Using GPR and high-resolution Seismic Methods, University of Puerto Rico, Mayagüez, November 8, 2006.

- 2006 Student Response Systems: Best Practices for Using Clickers in the Classroom, The University of Kansas, Center for Teaching Excellence, January 31, 2006.
- 2005 National Association of State Boards of Geology (ASBOG) review session in near-surface geophysics, The University of Kansas, February 21, 2005.
- 2004 National Association of State Boards of Geology (ASBOG) review session in near-surface geophysics, The University of Kansas, February 23, 2004.
- 2004 Utilizing Ground-Penetrating Radar Signal Attribute Analysis to Characterize a Fractured Aquifer, University at Buffalo, The State University of New York, April 16, 2004.
- 2004 Imaging Beyond Reflectors: Ground-Penetrating Radar Methods for High Resolution Investigation of Fractured Formations, Kansas State University, March 16, 2004.
- 2003 National Workshop on Earth Science Issues: Challenges in Subsurface Characterization, Imaging and Monitoring, Idaho National Engineering and Environmental Laboratory (INEEL) Sponsored Workshop, September 24-26, 2003, Salt Lake City, UT.
- 2002 Imaging Beyond Reflectors: Ground-Penetrating Radar Methods for High Resolution Investigation of Fractured Formations, The University of Kansas, March 14, 2002.
- 2002 – 2003 Seismic Data Analysis and Amplitude Interpretation, US Department of the Interior, Minerals Management Service, 3-day Short Courses presented October 2002, November 2002, and January 2003.
- 2000 Seismic Facies Analysis: Application to a Deepwater Field Determination, Minerals Management Service, Geoscience Information Technology Forum, New Orleans, Louisiana, February 2000.
- 2000 An Overview of Time vs. Depth Migrated Seismic Data from the Interpreter's Point of View, Minerals Management Service, Geoscience Information Technology Forum, New Orleans, Louisiana, February 2000.
- 1998 – 1999 Ground Penetrating Radar Theory, Field Methods and Data Interpretation, one day invited lecture in course GEO F382C Groundwater Field Methods, Summer Sessions 1999 and 1998, The University of Texas at Austin.
- 1998 Near-Surface Geophysical Methods in Hydrogeology, guest lecture in GEO 391C Physical Hydrogeology, Fall 1998, The University of Texas at Austin.
- 1997 Hydrogeologic Applications of GPR, brown-bag seminar, Spring 1997, The University of Texas at Austin.

Service

1) Professional Society Appointments and Service

- 2006 – present Associate Editor, Journal of Environmental and Engineering Geophysics (JEEG)
- 2010 – 2012 Council Member, American Geophysical Union (AGU)
- 2010 – 2012 Vice-Chair, AGU Near-Surface Geophysics Focus Group (NSFG)
- 2011 – 2012 Chair, Fellows Nominations Committee, AGU NSFG
- 2008, 2010 Member, Fellows Nominations Committee, AGU Joint Focus Group Section
- 2010, 2011 Member, Student Travel Grant Committee, AGU NSFG
- 2010, 2011 Outstanding Student Paper Awards Coordinator, AGU NSFG
- 2011 – 2013 Secretary, Geophysical Society of Kansas (GSK)
- 2011 Member, Distinguished Lecturer Committee, Society of Exploration Geophysicists
- 2010 Technical Program Coordinator, Symposium on Kansas Geophysics in the 21st Century, Wichita, Kansas USA, October 27-29, 2010
- 2009 – 2010 Member, Research Committee, Geophysical Society of Kansas
- 2008 – 2010 Secretary, AGU Near-Surface Geophysics Focus Group
- 2006 – 2010 Editor of monthly electronic newsletter, AGU Near-Surface Geophysics Focus Group
- 2005 – 2010 Member, AGU Hydrogeophysics Technical Committee

- 2008 – 2009 Member, Inter-section Liaison Committee, Society of Exploration Geophysicists, Near Surface Geophysics Section
- 2005 – 2008 Member, Executive Committee, AGU Near-Surface Geophysics Focus Group

Conference Sessions

- 2011 Fall 2011 AGU Meeting, oral session NS03: “Exploiting GPR and Seismic Wavefield Properties for Characterization of the Shallow Subsurface” Chair (Co-chair J. Bradford, Boise State).
- 2011 Fall 2011 AGU Meeting, poster session NS03: “Exploiting GPR and Seismic Wavefield Properties for Characterization of the Shallow Subsurface” Chair (Co-chair X. Comas, Florida Atlantic University).
- 2011 81st SEG Annual Meeting: External referee of Near-Surface Geophysics expanded abstract submissions.
- 2010 Symposium on Kansas Geophysics in the 21st Century, Wichita, Kansas USA, October 27-29, 2010, Organizer and Co-Chair of session “High Resolution Applications”.
- 2010 80th SEG Annual Meeting: External referee of Near-Surface Geophysics expanded abstract submissions.
- 2009 79th SEG Annual Meeting: External referee of Near-Surface Geophysics expanded abstract submissions.
- 2008 Fall 2008 AGU Meeting, oral session NS41A: “Geophysical Characterization of Flow in Dual Porosity Media: From Fractures to Karst and Glaciers I” Organizer and chair, Co-chair M. Becker (California State University Long Beach).
- 2008 Fall 2008 AGU Meeting, poster session NS43A: “Geophysical Characterization of Flow in Dual Porosity Media: From Fractures to Karst and Glaciers II” Organizer and chair, Co-chair M. Becker (California State University Long Beach).
- 2008 78th SEG Annual Meeting, oral session NSE-3: “Near Surface Seismic”, session chair and referee of session expanded abstracts. Co-chair Steve Danbom.
- 2007 77th SEG Annual Meeting: External referee of Near-Surface Geophysics expanded abstract submissions.
- 2006 11th International Conference on Ground Penetrating Radar, June 19-22, 2006, “Hydrogeophysics”, session chair and co-editor of session papers. Co-chair Sébastien Lambot (Université Catholique de Louvain, Belgium).
- 2006 76th SEG Annual Meeting: “NSE P2: Near Surface Seismic: VSP and Shear Waves”, poster session chair and referee of session expanded abstracts.
- 2005 Fall 2005 AGU Meeting: “H41B: Hydrogeophysical Characterization of Fractures: Laboratory and Field Scale Investigations,” session organizer and chair. Co-chairs M. Becker (Univ., at Buffalo, NY), T. Pačes (Czech Geological Survey).
- 2003 73rd SEG Annual Meeting: “Near-Surface Geophysics, GPR Applications”, external referee of session expanded abstracts.

Manuscript Reviews for Journals:

Geophysics	Journal of Environmental and Engineering Geophysics (JEEG)
Geophysical Prospecting	Environmental and Engineering Geoscience (EEG)
Water Resources Research (WRR)	Journal of Geophysical Research (JGR) Planets
Geology	GSA Special Paper on Stratigraphic Analysis Using GPR
Nuclear Technology	Journal of Geophysics and Engineering
Reviews of Geophysics (AGU)	Geophysical Research Letters (GRL)
Journal of Applied Geophysics (JAG)	Near Surface Geophysics
International Journal of Geophysics	

Proposal Reviews for:

NSF Geophysics	NSF Instrumentation and Facilities
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NSF Hydrologic Sciences	NSF Major Research Instrumentation Program
NSF Ecosystem Studies Program	Department of Energy (SBIR-STTR)
NSF Geobiology	Swiss National Science Foundation
Greek National Scholarship Foundation (I.K.Y.)	

II) University Service

2010 – present University of Kansas Study Abroad Advisor for Geology Courses
 2007 – 2008 Member, Search Committee, Energy Research Section Chief, Kansas Geological Survey
 2007 – 2008 Member, Search Committee, Petroleum Geoscientist/Petroleum Engineer, Kansas Geological Survey
 2007 Member, Search Committee, Research Assistant Professor EECS, Center for Remote Sensing of Ice Sheets
 2005 – 2006 Member, Search Committee, Groundwater Modeler, Kansas Geological Survey
 2005 – 2006 Member, Search Committee, Glaciologist, Center for Remote Sensing of Ice Sheets, Department of Geography
 2005 Referee, University of Kansas ROTC Scholarship Applications
 2005 Service report to the KU Office of Design and Construction Management, “Seismic Monitoring of Wescoe Food Court”
 2004 Summer Fulbright Program Faculty Mentor (Geophysics)

III) Department Service

2011 – present Department of Geology Executive Committee member
 2010 – present Director of Undergraduate Studies
 2010 – present Undergraduate Recruiting committee member
 2004 – present Faculty Advisor, University of Kansas Geophysical Society (Society of Exploration Geophysicists Student Section)
 2006 – present Faculty Advisor, University of Kansas SGE (National Honor Society of Earth Sciences)
 2009 – 2011 Member, Self Study Committee for Departmental 5-year External Review
 2010 – 2011 Member, Search Committee, Richie Chair in Sedimentary Geology
 2008 – 2009 Coordinator, Department of Geology Colloquium Series
 2007 – 2008 Member, Search Committee, Glaciologist, Center for Remote Sensing of Ice Sheets
 2005 – 2006 Member, Search Committee, Distinguished Professor in Invertebrate Paleontology
 2004 – 2009 Member, Graduate Admissions Committee
 2004 – 2009 Member, Graduate Studies Committee
 2003 – present Member, Associates Board University/Industry Liaison Subcommittee
 2003 – present Undergraduate Student Advising
 2003 Member, Young Faculty “Futures Committee”

IV) Community Service and Outreach

2011 Interviewed with local TV stations Channel 6 and Fox 4 regarding the 5.8 Magnitude Virginia Earthquake of August 23, 2011.
 2007 Hosted CREsis exhibit at the National Science Teachers Association (NSTA) Western Area Conference and presented research relating to global warming, Denver, CO, November 7 – 9.
 2007 Interviews with public media regarding my research on global warming and work in Greenland.
 i) The Washington Post (June 9): “In arctic ice, lessons on effects of warming: Researchers drill, map, blast in Greenland in hunt for clues” <http://www.washingtonpost.com/wp->

- dyn/content/article/2007/06/08/AR2007060802782.html?referrer=emailarticle
- ii) Greek newspaper Τα Νέα (June 15): “Greek scientist studies fast moving glacier”
<http://assets.in.gr/AssetService/Image.ashx?t=2&pg=72965&>
- iii) Lawrence Journal World (September 2): “KU provides key research on global warming”
http://www2.ljworld.com/news/2007/sep/02/ku_provides_key_research_global_warming/
- 2007 Gave eight presentations about polar research to approximately 80 “Project Discovery” high school female students from the mid-west, June 13 and July 11, 2007.
- 2006 GPR geo-archaeological investigation of 1800’s cemetery near Dyer, Nevada. Assisted community with identification of burial locations, while conducting geophysical research in Fish Lake Valley, Nevada, August 5, 2006.
- 2005 GPR geo-archaeological investigation for local archaeological society “Underground Railroad Association of Douglas County Kansas”, March 17 and May 27 2005.
- 2004 Participated in The University of Kansas “Wheat State Tour”, May 21-28, 2004

Student Supervision

Graduate Committee Chairman or Co-Chair (expected completion year of current students)*

Doctoral:

Jose Velez, Ph.D., (2011 – 2015*)

Blair Benson, Ph.D., (2011 – 2015*)

Anthony Hoch, Ph.D., (2006 – 2012*), Dissertation: Seismic and Radar Exploration of Ice Sheets.

Brian Miller, Ph.D., (2006 – 2011*), Dissertation: Automated Acquisition of 3D 3C Ultra Shallow Seismic.

Zeng Chong Ph.D., (2008 – 2011), Chair, co-chair Dr. Jianghai Xia. Dissertation: Wavefield Analysis of Rayleigh Waves for Near-Surface Shear-Wave Velocity

Ramzy Al-Zayer, Ph.D. (2005 – 2010), Co-chair with Dr. Ross Black. Dissertation: Near-Surface Seismic Velocity Model Improvement Using Shallow Seismic

Masters:

Chris Perll, MS (2011– 2013*)

Matt Baker, MS (2010 – 2012*), GPR Determination of Fracture Fluid-Flow Properties

Ayrat Sirazhiev, MA (2010 – 2012*), Seismic Characterization of Central Kansas Mississippian Carbonate Reservoirs for CO₂ Sequestration

Blair Benson, MS (2009 – 2011*), Co-chair with Dr. Rolfe Mandel, Geophysical Investigations of the Mound City Borrow Pits, Ross County, Ohio

Jose Velez, MS (2008 – 2011*). Thesis: Seismic Imaging of Ice Sheet Bed Conditions

Brooke Perini, MS (2007 – 2011*). Thesis: Seismic and GPR Imaging of the Water Table

Katharine Knoph, MS (2009 – 2011), Co-chair with Dr. R. Goldstein and Dr. E. Franseen. Thesis: Ground-Penetrating Radar Imaging of Depositional and Diagenetic Features in an Upper Miocene Carbonate Reservoir Analog, SE Spain

Kwan-Yee Cheng (2008 – 2011), Co-chair with Dr. Carl Leuschen, EECS. Thesis: Investigation of Radar Subsurface Sounding through Seasonal Cycles Collected by Mars Shallow Radar (SHARAD) in the South Polar Area

Robert Eslick, MS (2005 – 2007). Thesis: Study of Love Waves for Near-Surface Seismic Investigations

Michael Christie, MS (2005 – 2007). Thesis: Determining Fault Offsets and Slip Rates at the Emigrant Peak Fault in Nevada Using High-Resolution Reflection Seismology and Ground Penetrating Radar

Mike McGlashan, MS (2004 – 2007). Thesis: Monitoring Biofilm Growth and Groundwater Flow Changes Using Borehole GPR and Flow Velocity Probes

Gerard Czarnecki, MS, (2004 – 2006). Thesis: Automating 3D Ultra-Shallow Seismic Reflection Data Acquisition Using a 2D Geophone Array

Jon Jarvis, MS, (2004 – 2006). Thesis: An Investigation of Electromagnetic Wave Polarization For Vertical Fracture Characterization Using Ground-Penetrating Radar

Anthony Hoch, MS, (2003 – 2006). Thesis: Investigation of Variable Polarization Ground Penetrating Radar Wave Propagation Through Thin Layers.

Supervisor of Undergraduate Research Assistants and Interns

Alexandra Arntsen, University of Vermont, Burlington Vermont (REU Summer 2011). Project: Internal Ice layer Mapping and Geophysical Analysis of Jakobshavn Glacier, Greenland

Timothy Godaire, Unity College, Maine (REU Summer 2011). Project: Internal Ice layer Mapping and Geophysical Analysis of Jakobshavn Glacier, Greenland

Annaria Nardone, Washington and Lee University, Virginia (REU Summer 2009). Project: Use of Geophysical Software to Interpret the 2008 Jakobshavn Radar Grid.

Jose Velez, University of Puerto Rico, Mayagüez (REU Summer 2007). Project: Evaluation of seismic reflection data acquired with a streamer on Jakobshavn Glacier, Greenland.

Edil A. Sepulveda Carlo, University of Puerto Rico, Mayagüez (REU Summer 2007). Project: Evaluation of seismic reflection data acquired with a streamer on Jakobshavn Glacier, Greenland.

Karina Kervin, KU EECS (2007). Project: Evaluation of Surface and Borehole Ground-Penetrating Radar in Transportation Projects.

Alex O. Martinez, University of Puerto Rico, Mayagüez (REU Summer 2006). Project: Use of Geophysical Software for Interpretation of Ice Penetrating Radar Data and Mapping of Polar Ice Sheets.

Jasmin Talbert (2003 – 2005). Project: Implementation of Numerical Models for Simulation of GPR Wave Propagation in Fractured Formations.

Kwan Yee Cheng, KU Geology (2006 – 2007). Project: Evaluation of Surface and Borehole Ground-Penetrating Radar in Transportation Projects.

Javier de Palacios, KU Geology (2006). Project: Evaluation of Surface and Borehole Ground-Penetrating Radar in Transportation Projects.

Ryan Brumbaugh, KU Geology, (Summer 2006). Project: Imaging the Deformational History of Alluvial Fans Cut by Active Faults Using Shallow Seismic Reflection and GPR Techniques.

Kwan Yee Cheng (Summer 2005). Project: Geotechnical Soil and Concrete Material Testing.

Carlo Ossola, Politecnico di Milano (Spring 2005). Project: Investigation of the Polarization Properties of GPR Signals for the Detection of Buried Pipes.

Stefano Iuliano, Politecnico di Milano (Spring 2005). Project: Investigation of the Polarization Properties of GPR Signals for the Detection of Buried Pipes.

Robert Eslick (2004 – 2005): Field Test of a High Frequency Seismic Source Near Lawrence Kansas.

Graduate Committee Member (current)

Jeffrey Schroeder, Ph.D.

Christian Hager, Ph.D.

Zhaoqi Li, Ph.D.

Peter Schillig, Ph.D.

Daniel Doolittle, Ph.D.

Rubina Firdous, Ph.D.

Justin Fairchild, MS

Craig Hendrix, MS

Rafferty Sweeney, MS

Tyler Schwenk, MS

Natalie Garven, MS

Graduate Committee Member (date of completion)

Steve Sloan, Ph.D. (2008)

Bei Huang, Ph.D. (2011)

Steve Sloan, MS (2005)

David Bradley, MS (2005)

Theresa Rademacker, MS (2006)

Ben Roche, MS (2006)

Chris Gifford, MS (2006), KU EECS

Lisa Dwyer, MS (2006), Univ. of New Orleans

Peter Schillig, MS (2007)

Shelby Walters, MS (2008)

Brian Wachter, MS (2008)

Cathy Baker, MS (2008)

Rachel Dvoretzky, MS (2009)

Lindsay Walters, MS (2009)

Arlo McKee, MS (2009), KU Anthropology

Ben Ramaker, MS (2009)

Christopher Lipinski, MS (2009)

Evan Bargnesi, MS (2011)

Andrew Sparks, MS (2011)