

CURRICULUM VITAE

Last Updated: March 2009

Name: **GREGORY S. BAKER** Tel: 865-974-6003
Address: University of Tennessee Fax: 865-974-2368
Dept. of Earth & Planetary Sciences Email: gbaker@tennessee.edu
306 Earth & Planetary Sciences Building Web: www.geophysics.tennessee.edu
Knoxville, TN 37996-1410

Education

Ph.D., Geology (Honors), "Seismic Imaging Shallower than Three Meters," The University of Kansas, Lawrence, Kansas, 1999 (Don W. Steeples, Advisor).

M.S., Geological Sciences, "An Examination of Triassic Cyclostratigraphy in the Newark Basin from Shallow Seismic Profiles and Geophysical Logs," Lehigh University, Bethlehem, Pennsylvania, 1994 (Anne S. Meltzer, Advisor).

B.S., Geological Sciences (Honors), "Paleomagnetic Evidence for Block Rotation in the Franciscan Terrane, Point San Pedro, CA," Lehigh University, Bethlehem, Pennsylvania, 1992 (Kenneth P. Kodama, Advisor).

Professional Experience

Jones/Bibee Endowed Associate Professor of Geophysics, Dept. of Earth and Planetary Sciences, University of Tennessee, 2006-present

Jones/Bibee Endowed Assistant Professor of Geophysics, Dept. of Earth and Planetary Sciences, University of Tennessee, 2005-2006

Research Associate Professor, Dept. of Geology, University at Buffalo, 2005-present

Associate Professor, Dept. of Geology, University at Buffalo, 2004-2005

Assistant Professor, Dept. of Geology, University at Buffalo, 1999-2004

Associate Editor, Journal of Geoscience Education, 2006-present

Associate Editor, *GEOPHYSICS*, 2001-2004

Visiting Instructor, National Science Foundation Research Experience for Undergraduates (REU) Program, Matanuska Glacier, Alaska, Summer 2000, 2001, 2002

Short Course Instructor, "Near-Surface Seismic Reflection Data Processing" Workshop, Incorporated Research Institutions for Seismology (IRIS) invited workshop, Jackson Hole, WY, June 2001

Visiting Instructor, Dept. of Earth and Env. Sci., Lehigh University, Summer Sessions 1996-1999

Research Assistant, Dept. of Geology, University of Kansas, 1996-1999

Research Assistant, Dept. of Earth and Env. Sci., Lehigh University, 1995-1996

Geologist, GS-5, U.S. Geological Survey, Reston, VA, USGS/NAGT cooperative program, 1994

Funding

Active Support

National Science Foundation (\$81,609; PI; GEO-0704077), “OEDG Phase 1: Enhancing Diversity via Targeted Education and Outreach Through the East Tennessee Geosciences Program (ETGP)” Total attributed to UT: \$81,609; 90% to GSBaker). Active 06/01/07-05/31/10.

U.S. Department of Energy (\$412,000; Sole Investigator; UT-B 4000059241), “Multiscale investigations on the rates and mechanisms of targeted immobilization and natural attenuation of metal, radionuclide, and co-contaminants in the subsurface” Total attributed to UT: \$412,000; 100% to GSBaker). Active 2/1/07-1/31/10.

U.S. Department of Agriculture (\$61,080; Sole Investigator; USDA-06-JV-11221682-040), “Using Near Surface Geophysics to Understand Alluvial Fans and Meadow Complexes in the Central Great Basin” Total attributed to UT: \$61,080; 100% to GSBaker). Active 08/01/03-07/30/09.

Recent Support (2001 – present) in Reverse Chronological Order of End Date

National Science Foundation (\$604,561; PI; GEO-0119871), “Enhancing Diversity in Buffalo, New York, Area Geoscience Programs” Total attributed to UB: \$604,561; 90% to GSBaker). Active 1/1/02-12/31/06.

National Science Foundation (\$32,000; Sole Investigator; INT-0243524), “Archaeological Geophysics in Humayma, Jordan” Total attributed to UB: \$32,000; 100% to GSBaker). Active 6/1/03-6/1/06.

Social Sciences and Humanities Research Council of Canada (\$230,752; Project Director), “Excavation and study of the Roman fort, bath, and associated settlement at Hawara (modern Humayma), Jordan” Total attributed to UB: \$0 (Research expenses paid by PI through the University of British Columbia); 0% to GSBaker. Active 5/1/02-9/1/06.

The Taggart Foundation (Private) (\$10,332; Sole Investigator), “Excavation and study of the Roman fort, bath, and associated settlement at Hawara (modern Humayma), Jordan” Total attributed to UB: \$10,332; 100% to GSBaker. Active 5/1/02-9/1/06. (Used to cover student salary not covered through the SSHRC grant.)

University of Tennessee College of Arts & Sciences Instructional Equipment Grant (\$10,000, PI), “Acquisition of Ground Conductivity Equipment” Total attributed to UT: \$10,000; 100% to GSBaker). Active 1/1/06-6/1/06.

U.S. Department of Agriculture, Forest Service (\$20,080; Sole Investigator), “Phase 2: Using Near Surface Geophysics to Understand Alluvial Fans and Meadow Complexes in the Central Great Basin” Total attributed to UT: \$20,080; 100% to GSBaker). Active 12/31/05-12/31/06.

U.S. Department of Defense (\$233,833; Sole Investigator; DACA42-01-C-0051), “Using Near-Surface Seismic Techniques for Improved Environmental Site Characterization” Total attributed to UB: \$233,833; 100% to GSBaker). Active 10/20/01-10/19/06.

National Science Foundation (\$118,443; Co-PI; GEO-0207720), “Integrating Hydraulic, Tracer, and Geophysical Methods to Image Flow-Channeling Behavior in Fractured Bedrock” Total attributed to UB: \$118,443; 50% to GSBaker). Active 8/1/02-7/31/05.

U.S. Department of Agriculture, Forest Service (\$61,170; Sole Investigator), “Phase 1: Using High Resolution Seismic Data to Understand Alluvial Fans and Meadow Complexes in the Central Great Basin” Total attributed to UB: \$61,170; 100% to GSBaker). Active 6/1/03-5/31/06.

National Science Foundation (\$38,529; Sole Investigator), “Acquisition of Equipment for Investigating Coincident Seismic and GPR Imaging” Total attributed to UB: \$38,529; 100% to GSBaker. Active 8/1/00-7/31/02.

National Science Foundation TEA Supplement (\$10,100; Sole Investigator), “Geophysical Investigations of Ice Flow Velocities on the Matanuska Glacier” Total attributed to UB:

\$10,100; 100% to GSBaker). Active 6/1/02-7/31/03.

National Science Foundation TEA Supplement (\$10,100; Sole Investigator), "Geophysical Investigations on the Matanuska Glacier" Total attributed to UB: \$10,100; 100% to GSBaker. Active 6/1/01-7/31/02.

Seismic Moco-Technology (SMT), Inc. (\$495,161; Sole Investigator), Software grant for 16 licenses of KINGDOM Suite+ including annual maintenance fee. Total attributed to UB: \$495,161; 100% to GSBaker). Active 8/1/03-8/1/06.

Environment and Society Institute (Univ. at Buffalo) Environmental Management Alternatives Program (\$19,900; Principal Investigator), "Integrated geophysical, geochemical, and structural site characterization near the West Valley Demonstration Project" Total attributed to UB: \$19,900; 60% to GSBaker. Active 9/1/2000-10/30/01.

University at Buffalo Environmental Management Alternatives Program (EMAP) (\$21,793; Principal Investigator), "Integrated Geophysical, Geochemical, and Structural Site Characterization Near the West Valley Demonstration Project" Total attributed to UB: \$21,793; 50% to GSBaker. Active 10/1/00-12/30/01.

University at Buffalo Pilot Program \$21,793; Principal Investigator), "Direct detection of nonaqueous-phase liquid contaminants using amplitude-variation-with-offset analysis on ground penetrating radar data" Total attributed to UB: \$15,000; 60% to GSBaker. Active 8/1/2000-10/30/01.

University at Buffalo Faculty Educational Technology Development Grant (\$8,988, Co-PI), "Hydrogeophysical monitoring at the Duttweiler Property" Total attributed to UB: \$8,988; 50% to GSBaker). Active 6/1/02-9/30/03.

U.S. Coast Guard Support Center, Elizabeth City, North Carolina (\$2,756: co-PI), "Field testing APVO analysis of GPR data across a site containing an extensive jet propellant release" Active 6/1/02-12/31/02.

U.S. Department of Defense, Mayport, Florida (\$5,955: co-PI), "Field testing APVO analysis of GPR data across a site containing an extensive diesel fuel release" Active 6/1/02-12/31/02.

U.S. Department of Defense, Fort Drum, New York (\$450: Sole Investigator), "Examination of APVO analysis of GPR data for delineation of an extensive gasoline release in sandy soils, Fort Drum, New York" Total attributed to UB: \$450; 100% to GSBaker. Active 8/20/01-12/31/02.

Publications

Monographs

2007

Baker, G.S., and Jol, H.J., eds., 2007, Stratigraphic Analysis using Ground Penetrating Radar: Geological Society of America, *Special Paper 432*.

1999

Baker, G.S., 1999, Processing near-surface seismic-reflection data: A Primer: edited by R.A. Young, *Society of Exploration Geophysicists Publications*, 87 p. [ISBN 1-56080-090-9]

Refereed Articles Published/In Press (asterisk (*) denotes supervised student)

2009

Baker, G.S., and Steeples, D.W., in press, Shallow Underground Reflection Feasibility (SURF) Diagrams: *Geophysics*.

*Beyrle, K.B., G.S. **Baker**, M.W. Becker, and J.L. *Talley, in press, Commutability and positioning error of various polarization configurations using a PulseEkko 100 GPR System, *Journal of Environmental and Engineering Geophysics*.

*Gilcrist, L.E., and **Baker**, G.S., in press, Evaluating the impact of soil moisture, nonlinear deformation, and resonance on near-surface seismic reflection data quality: *Journal of China University Geosciences*.

2008

Baker, G.S., 2008, Improving our understanding of near-surface seismic reflection data quality: Invited contribution to *The Leading Edge Special Issue*, 27, 1526-1534.

*Evenick, J.C., Hatcher, R.D., **Baker**, G.S., 2008, Trend surface residual anomaly mapping and well data may be underutilized combo: *Oil & Gas Journal*, Jan. 2008, 35-42.

2007

Baker, G.S., *Jordan, T.E., and *Talley, J., 2007, An introduction to ground penetrating radar (GPR), in Baker, G.S., and Jol, H.M., eds., Stratigraphic Analyses Using GPR: *Geological Society of America Special Paper 432*, 1-18.

*Gilcrist, L.E., **Baker**, G.S., Sen S., 2007, Preferred frequencies for three unconsolidated Earth materials: *Applied Physics Letters*, 91, 254-257.

- * Stokes, P.J., **Baker**, G.S., Briner, J.P., and Dorsey, D.J., 2007, Multifaceted outreach model for enhancing diversity in the geosciences in Buffalo, NY: *Journal of Geoscience Education*, v. 55, n. 6, p. 574-580.

2006

- * Ambrose, H.M., **Baker**, G.S., Oleson, J.P., Sherwood, A., Reeves, M.B., and de Bruijn, E., in press, High-Resolution Archaeological Geophysics Survey using Electrical Resistivity, Magnetic Gradiometry, and Ground-Penetrating Radar at a Second-Century Roman Fort, Humayma, Jordan: *Geoarchaeology*.
- * Bennett, G., Weissmann, G.S., **Baker**, G.S., and Hyndman, D.W., 2006, Regional-scale assessment of a sequence bounding paleosol on fluvial fans using ground penetrating radar, eastern San Joaquin Valley, California: *Geological Society of America Bulletin*, v. 118, p. no 5, 724-732.

2005

- * Evenick, J. C., Jacobi, R. D., **Baker**, G. S., and Mitchell, C. E., 2005, Subsurface evidence for faults in the Appalachian basin, western New York State: *Northeastern Geology and Environmental Sciences*, v. 27, no. 1, p. 1-17 .
- * Talley, J., **Baker**, G.S., Becker, M.W., Beyrle, K., 2005, Four Dimensional Mapping of Tracer Channelization in Sub-Horizontal Bedrock Fractures using Surface Ground Penetrating Radar, *Geophysical Research Letters*, v. 32, p. 732-735.

2004

- * Jordan, T.E. and **Baker**, G.S., 2004, Amplitude and Phase Variation with Offset (APVO) Analysis of Ground Penetrating Radar Data: Theory and Forward Modeling: *Environmental and Engineering Geoscience*.
- * Jordan, T.E., **Baker**, G.S., Henn, K., Messier, J-P., 2004, Using amplitude variation with offset and normalized residual polarization analysis of ground penetrating radar data to differentiate an NAPL release from stratigraphic changes: *Journal of Applied Geophysics*, 56, 41– 58.

2003

- Alley, R.B., Lawson, D.E., Larson, G.J., Evenson, E.B., and **Baker**, G.S., 2003, Stabilizing feedbacks in glacier-bed erosion: *Nature*, 424, 758-760.
- Baker**, G.S., Strasser, J.C., Evenson, E.B., Lawson, D.E., Pyke, K.P., and Bigl, R.A., 2003, Near-surface seismic reflection profiling of the Matanuska Glacier, Alaska USA: *Geophysics*, 68, no 1, 147-156.

*Jordan, T.W., and **Baker**, G.S., 2003, Recommendation for new terminology for linear polarized components of ground penetrating radar waves: *Journal of Environmental and Engineering Geophysics.*, 8, no 1, 39-42.

*Malinowski, M., and **Baker**, G.S., 2003, Experimental results of energy and soil-moisture effects on nonlinear deformation associated with near-surface seismic reflection sources: *Journal of Environmental and Engineering Geophysics*, 8, no 4, 221-226.

2002

Baker, G.S., Steeples, D.W., and Schmeissner, C, 2002, The effect of seasonal soil-moisture conditions on near-surface seismic reflection data quality: *First Break*, 20, no 1, 35-41. (Although not normally a refereed journal, articles in this special issue were peer-reviewed.)

Black, R.A., Walker, J.D., and **Baker**, G.S., 2002, Three-dimensional gravity modeling and crustal-density variations, Panamint Range to the eastern Sierra Nevada, southeastern California, in Glazner, A.F., Walker, J.D., and Bartly, J.M., eds., *Geologic Evolution of the Mojave Desert and Southwestern Basin and Range*: Boulder, Colorado, Geological Society of America Memoir 195, p. 229-241.

2001

Baker, G.S., Steeples, D.W., Schmeissner, C., Pavlovic, M., and Plumb, R., 2001, Coincident imaging with seismic and GPR techniques: *Geophys. Res. Lett.*, 28, no 4, 627-630.

2000

Baker, G.S., Steeples, D.W., Schmeissner, C., and Spikes, K.T., 2000, Source-dependent frequency content of ultrashallow seismic reflection data: *Bull. Seis. Soc. Amer.*, 90, 2, 494-499.

Baker, G.S., Steeples, D.W., Schmeissner, C., and Spikes, K.T., 2000, Ultrashallow Seismic Reflection Monitoring of Seasonal Fluctuations in the Water Table: *Environmental and Engineering Geoscience*, 6, no 3, 271-277.

1999

Baker, G.S., Schmeissner, C., Steeples, D.W., and Plumb, R.G., 1999, Seismic reflections from depths of less than two meters: *Geophys. Res. Lett.*, 26, no 2, 279-282.

Baker, G.S., Steeples, D.W., and Schmeissner, C., 1999, In situ, high-resolution P-wave velocity measurements within 1 m of the Earth's surface: *Geophysics*, 64, no 2, 323-325.

Steeples, D.W., **Baker**, G.S., and Schmeissner, C., 1999, Toward the autojuggie: Planting 72 geophones in 2 seconds: *Geophys. Res. Lett.*, 26, no 8, 1085-1088.

Steeples, D.W., **Baker**, G.S., Schmeissner, C., and Macy, B.K., 1999, Geophones on a Board:

Geophysics, 64, no 3, 809-814.

1998

Baker, G.S., 1998, Applying AVO analysis to GPR data: *Geophys. Res. Lett.*, 25, no 3, 397-400.

Baker, G.S., Steeples, D.W., and Drake, M., 1998, Muting the noise cone in near-surface reflection data: an example from southeastern Kansas: *Geophysics*, 63, no 4, 1332-1338.

1997

Baker, G.S., Steeples, D.W., and Feroci, M., 1997, The time dependence of shallow reflection data: *The Leading Edge*, 16, no 11, 1663-1666. (Although not normally a refereed journal, articles in this special issue were peer-reviewed.)

Refereed Articles Submitted/In Revision (asterisk (*) denotes supervised student)

Baker, G.S., and Bunn, J.H., submitted, Sunspots and Great Lakes Water Levels: *Geophysical Research Letters*.

Nonrefereed Publications (asterisk (*) denotes supervised student)

2005

Young, R. A., and **Baker**, G.S., 2005, Introduction of Special Issue on Near Surface Geophysics University Research and Education: Invited contribution in *FastTIMES: Newsmagazine for the near surface geophysical sciences*, Young and Baker., Special Eds., 9, no 9.

2004

Baker, G.S., 2004, The Near Surface Geophysics (NSG) section of the Society of Exploration Geophysicists: Invited contribution in *FastTIMES: Newsmagazine for the near surface geophysical sciences*, Doll, W.E., Special Ed., 9, no 9.

2003

Baker, G.S., Jordan, T.J., Sultan, M.I., and Collins, S., 2003, Laboratory manual for global environmental science, 3rd Edition: Wiley & Sons, Inc., 216 p. [ISBN 0-471-54122-2]

Kopczynski, S.E., S.R. Bigl, J.V. Holmes, D.C. Finnegan, G.S. **Baker**, A. Delaney. September 2003. Hydrogeology of the Poleline Road Disposal Area . CRREL Contract Report. Prepared for U.S. Army Alaska, Directorate of Public Works.

Larson, G.J., Evenson, E.B., Lawson, D.E., Ensminger, S.L., **Baker**, G.S., and Alley, R.B., 2003, Glacial Geology of Upper Cook Inlet, Matanuska Glacier and Denali Highway: *in* Easterbrook, D.J., ed., Field Trip Guide, The XVI INQUA Congress (International Union for Quaternary Research).

*Mayer, C.M., and **Baker**, G.S., 2003, Methods of Rapid Azimuthal Resistivity Collection with an Ohmmapper Resistivity Meter: *University at Buffalo Journal of Undergraduate Research*, 1, A 1-6.

*Talley, J., *McEwan, D., *Shaffer, W. and G. S. **Baker**, 2003, The Rensch Canal Project: *University at Buffalo Journal of Undergraduate Research*, 1, B 1-14.

2002

Baker, G.S., 2002, Book review of “Surviving Galeras” by Stanley Williams and Fen Montaigne: Cambridge Press, *in* Science, Books & Films: American Association for the Advancement of Science, vol 38, no 4, p 460-461.

Baker, G.S., Jordan, T.J., and Collins, S., 2002, Laboratory manual for global environmental science, 2nd Edition: Wiley & Sons, Inc., 216 p. [ISBN 0-471-39138-2]

Oleson, J.P., **Baker**, G.S., Sherwood, A.N., deBruijn, E., Reeves M.B., Ambrose H.M., 2002, Report on the Humayma Excavation Project for 2002: Unpublished Report Submitted to the Jordanian Department of Antiquities.

2001

Baker, G.S., 2001, Book review of “Fore in the Sea—The Santorini Volcano: Natural History and the Legend of Atlantis” by Walter L. Friedrich: Cambridge Press, *in* Science, Books & Films: American Association for the Advancement of Science, vol 37, no 1, p 17-18.

Baker, G.S., and Collins, S., 2001, Laboratory manual for global environmental science: Wiley & Sons, Inc., 216. [ISBN 0-471-20180-4]

2000

Baker, G.S., 2000, Book review of “Earth Almanac: An annual geophysical review of the state of the planet” by Natalie Goldstein: Oryx Press, *in* Science, Books & Films: American Association for the Advancement of Science, vol 36, no 5, p 216.

Baker, G.S., 2000, Matanuska Glacier July 2000 Preliminary Geophysics Report: Cold Regions Research and Engineering Laboratory (CRREL) report, 16 p.

1999

Baker, G.S., 1999, Seismic Imaging Shallower than Three Meters: PhD (Honors) dissertation, The University of Kansas, 320 p.

1998

Baker, G.S., Steeples, D.W., and Schmeissner, C., 1998, New views on the shallow subsurface: Near-surface views, Near-surface geophysics section of the Soc. Expl. Geoph. newsletter, October, 1998.

Steeple, D.W., and **Baker**, G.S., 1998, Finding seismic static corrections: *AAPG Explorer*, 19, no 6, 20-21,29.

1994

Baker, G.S., 1994, An Examination of Triassic Cyclostratigraphy in the Newark Basin from Shallow Seismic Profiles and Geophysical Logs: M.Sc. thesis, Lehigh University, 186 p.

1992

Baker, G.S., 1992, Paleomagnetic Evidence for Block Rotation in the Franciscan Terrane, Point San Pedro, CA: B.S. (Honors) Thesis, Lehigh University, 112 p.

1991

Baker, G.S., Cherichetti, P., Cyr, K., DeVivo, J., Gascoyne, R., Gatti, J.A., Kinney, D., Peper, E., Rohrer, J., and Warner, L., 1991, Lehigh University Campus Soils: A Preliminary Sedimentologic Study: Contribution 001 of *Campus Environmental Studies Series*, Lehigh University, 25p.

Conference Proceedings (abstracts/expanded abstracts; asterisk (*) denotes supervised student)

2009

Chen, J., Hubbard, S., Korneev, V., *Gaines, D. P., Baker, G.S., and Watson, D., 2008, Stochastic inversion of seismic refraction data with

2008

Chen, J., Hubbard, S., Korneev, V., *Gaines, D. P., **Baker**, G.S., and Watson, D., 2008, Stochastic inversion of seismic refraction data with borehole depth constraints for watershed-scale characterization of aquifer geometry, *Eos. Trans. AGU* 89(53), Fall Meeting Suppl., Abstract H44C-06.

*Gaines, D.P., **Baker**, G.S., Hubbard, S.S., *Modi, A., Watson, D., and Jardine, P., 2008, Enhanced Monitoring of recharge-related environmental remediation processes using time-lapse seismic reflection, *Eos. Trans. AGU* 89(53), Fall Meeting Suppl., Abstract NS41A-04.

*Modi, A., **Baker**, G.S., Hubbard, S.S., Gasperikova, E., *Gaines, D.P., Watson, D., and Jardine, P., 2008, Using high-resolution, surface time-lapse electrical resistivity tomography to characterize and monitor subsurface hydrological processes, *Eos. Trans. AGU* 89(53), Fall Meeting Suppl., Abstract H53E-1116.

*Stokes, P.J., Briner, J.P., **Baker**, G.S., 2008, Ice-scoured bedrock, Laurentide meltwater, and Lake Tonawanda wind seiches; glacial effects on the development of the Hiscock Site: Abstracts with Programs - Geological Society of America, vol. 40, no. 2, pp.12

2007

Baker, G.S., 2007, Understanding the existing role of traditional field camps in the earth sciences: Insights from the NAGT/USGS internship program and the broader community: *Abstracts with Programs - Geological Society of America*, vol. 39, no. 6, pp.547.

Baker, G.S., *Sturtevant, K.A., Lord, M., Miller, J., Jewitt, D., Germanoski, D., Chambers, J., 2007, Utilizing multiple geophysical techniques to analyze hydrologic controls on riparian meadow complexes in the Central Great Basin, NV: *Abstracts with Programs - Geological Society of America*, vol. 39, no. 6, pp.520.

*Burns, K., and **Baker**, G.S., 2007, Developing an empirical relationship between ground penetrating radar reflection amplitudes and subhorizontal fracture apertures: *Symposium on the Application of Geophysics*

*Carr, M.E., **Baker**, G.S., Briner, J.P., 2007, Geophysical analysis of lacustrine environments for determining Arctic warmth: *Abstracts with Programs - Geological Society of America*, vol. 39, no. 6, pp.122

*Gilchrist, L.E., **Baker**, G.S., and Sen, S., 2007, Systematic exploration of near surface soil dynamics: Determining resonant or preferred frequencies in three soil types by isolating and changing mechanical wave properties associated with frequency, amplitude, and load time: *Society of Exploration Geophysicists 2007 International Exposition and 77th Annual Meeting*.

*Stokes, P.J., **Baker**, G.S., Laub, R.S., Briner, J.P., 2007, Correlating georadar facies to subsurface lithology: An approach to understanding the Late Quaternary Hiscock Site, western New York State: *Geological Society of America Abstracts with Programs*.

*Sturtevant, K.A., **Baker**, G.S., Lord, M., Miller, J., Jewitt, D., Germanoski, D., Chambers, J., 2006, Combining multiple seismic and ground penetrating radar techniques to analyze hydrologic controls on riparian meadow complexes in the Central Great Basin, Nevada USA: *Symposium on the Application of Geophysics to Engineering & Environmental Problems*.

2006

*Delaney, B.A., *Stokes, P.J., *Thuman, H.A., Perrelli, D.J., **Baker**, G.S., 2006, Grave hunting with ground penetrating radar at the historical Hull house cemetery: Abstracts with Programs - Geological Society of America, vol. 38, no. 7, pp.368.

- *Poczkalski, R.J., *Perez, A.S., *Wischerath, L.M., *Philipps, W.E., *Jayakumar, A., *Jarzyniecki, N.A., *Stokes, P.J., *Thuman, H.A., Briner, J.P., **Baker, G.S.**, 2006, Changing Tides: An Invitation to Diversify the Geosciences via Community Outreach and Inquiry-Based Science Education in Eastern Tennessee: *Geological Society of America Abstracts with Programs*, Vol. 38, No.3.
- *Stokes, P.J., **Baker, G.S.**, Laub, R.S., 2006, Using Ground Penetrating Radar (GPR) to find Pleistocene megafauna fossils at the Hiscock Site in Western New York: *Geological Society of America Abstracts with Programs*, Vol. 38, No. 2.
- *Sturtevant, K.A., **Baker, G.S.**, Lord, M., Miller, J., Jewitt, D., Germanoski, D., Chambers, J., 2006, Analyzing geologic controls of riparian meadow complexes using multiple geophysical techniques in the Central Great Basin, NV: *Geological Society of America Southeastern Section Meeting Abstracts with Programs*.
- *Sturtevant, K.A., **Baker, G.S.**, Lord, M., Miller, J., Jewitt, D., Germanoski, D., Chambers, J., 2006, Utilizing multiple geophysical techniques to analyze bedrock geometry and sedimentological controls on riparian meadow complexes in the Central Great Basin, NV: *Geological Society of America Abstracts with Programs*, Vol. 38, No.3.
- *Wischerath, L.M., *Stokes, P.J., Maletz, J., Briner, J.P., **Baker, G.S.**, *Jarzyniecki, N.A., 2006, Evaluating the outreach successes of a NSF-OEDG program for increasing diversity in the geosciences in western New York: Abstracts with Programs - Geological Society of America, vol. 38, no. 7, pp.221.

2005

- Axford, Y., Briner, J.P., Francis, D.R., **Baker, G.S.**, and Miller, G.H., 2005, Midge-Inferred Temperatures from Three Interglacial Periods in the Eastern Canadian Arctic, *Eos Trans. American Geophysical Union*, Vol. 86, No. 52.
- Baker, G.S.**, 2005, Does near-surface geophysics serve the geology that serves society?: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 342.
- Baker, G.S.**, and Ambrose, H.M., 2005, Quantitatively merging GPR and magnetic gradiometry data for enhanced interpretation of archaeological geophysics surveys: *Society of Exploration Geophysicists 2005 International Exposition and 75th Annual Meeting*, Houston, Texas.
- Baker, G.S.**, and Aslan, A., 2005, Integrating geology and geophysics to determine the origin of Unaweep Canyon and Late Cenozoic fluvial incision in the Colorado Plateau-Rocky Mountain region: *Geological Society of America Abstracts with Programs*, Rocky Mountain Section.
- (invited) **Baker, G.S.**, Pyke, K.P., Evenson, E.B., Lawson, D., Larson, G., and Alley, R.B., 2005, Application of Near-Surface Geophysics to Problems in Glacier Dynamics, Pitted Outwash Plain Formation, and Glaciotectonics, Matanuska Glacier, Alaska: *Eos, Transactions*,

American Geophysical Union, Spring Meeting.

Baker, G.S., *Talley, J.L., Becker, M.W., and *Beyrle, N.J., 2005, Examining meter-scale fluid channelization in a subhorizontal bedrock fracture by tracking high-salinity tracer using surface ground penetrating radar: *Society of Exploration Geophysicists 2005 International Exposition and 75th Annual Meeting*, Houston, Texas.

Becker, M.W., *Talley, J.L., **Baker**, G.S., and *Beyrle, N., 2005, Comparing Ideal and Field Tracer Transport in Fractured Bedrock using Ground Penetrating Radar, *Eos Trans. American Geophysical Union*, Vol. 86, No. 52.

*Jarzyniecki, N.A., *Stokes, P.J., **Baker**, G.S., and *Thuman, H.A., 2005, Development of a partnership to increase interest in the geosciences in Buffalo, NY, USA: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 447.

Jewett, D.G., Chambers, J.C., Miller, J.R., Lord, M.L., Germanowski, D., and **Baker**, G.S., 2005, An integrated, science-based approach to managing and restoring upland riparian meadows in the Great Basin of Central Nevada: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 538.

*Jordan, T.E., **Baker**, G.S., Henn, K., Messier, J-P., 2005, Using Normalized Residual Polarization (NRP) Analysis of Ground Penetrating Radar Data to Detect Jet Propellant in Soils: American Association of Petroleum Geologists North-Eastern Section meeting, Morgantown, Pennsylvania, September 18-20.

Lord, M.L., Jewett, D.G., Miller, J.R., Germanowski, D., **Baker**, G.S., and Chambers, J.C., 2005, Hydrogeomorphic setting, characteristics, and response to stream incision of montane riparian meadows in the Central Great Basin—Implications for restoration: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 538.

Germanowski, D., Miller, J.R., Lord, M.L., Jewett, D.G., Chambers, J.C., **Baker**, G.S., and Bergman, J., 2005, Reach specific channel stabilization based on comprehensive evaluation of valley fill history, alluvial architecture and groundwater hydrology in a mountain stream in the Central Great Basin, Nevada: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 538.

*Stokes, P.J., **Baker**, G.S., Birdd, D., Dorsey, D., Splett, J., and Staley, J., 2005, Enhancing diversity in the geosciences: Recruiting for the long run: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 261.

*Sturtevant, K., **Baker**, G.S., Lord, M.L., Miller, J.R., Jewett, D.G., and Germanowski, D., 2005, Integrating geophysics, geology, and hydrology to determine bedrock geometry controls on the origin of isolated meadow complexes within the Central Great Basin, Nevada: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 509.

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2004

Baker, G.S., 2004, Recent advances in acquisition and analysis of seismic, GPR, and electrical resistivity data for hydrogeophysical investigations: *Geological Society of America Abstracts with Programs*.

Baker, G.S., *Stokes, P.J., Birdd, D., Dorsey, D., Splett, J., and Staley, J., 2004, Tools and techniques for diversity enhancement in the geosciences through the Buffalo Geosciences Program (BGP): *Geological Society of America Abstracts with Programs*.

Baker, G.S., *Talley, J.L., Becker, M.W., and *Beyrle, N.J., 2004, Flow-channeling in fractured bedrock: ground penetrating radar investigations and interpretations: *Eos, Transactions, American Geophysical Union*.

Becker, M.W., J. Talley, G.S. **Baker**, N. *Beyrle, Flow-Channeling in Fractured Bedrock: Combining GPR, Tracer, and Hydraulic Data, *American Geophysical Union National Fall Meeting*, December 12-17, 2004.

*Malinowski, M., and **Baker**, G.S., 2004, Effects of source energy and soil moisture on near-source, nonlinear deformation associated with near-surface seismic reflection sources: *SEG 2004 International Exposition and 74th Annual Meeting*, Denver, Colorado.

Romanowicz, E.A., Paillet, F., Reeve, A., Becker, M.W., **Baker**, G.S., Franzi, D., 2004, Characterizing the Hydraulic Properties of Fractured Bedrock: A Fractured Sandstone Example: *National Ground Water Association / U.S Environmental Protection Agency Fractured Rock Conference*, Burlington, Vermont.

Snyder, C.F., G.B.**Baker**, S.Pack, S.E. Kocczynski, and K. Sturtevant, 2004, Partial Derivative Modeling of Shallow Seismic Refraction Tomography Data, Birch Hill Tank Farm, Fort Wainwright, Fairbanks, Alaska: *Eos, Transactions, American Geophysical Union*.

*Sturtevant, K.A., **Baker**, G.S., Snyder, C.F., and Kocczynski S.E., 2004, Hydrogeophysical characterization of bedrock fracture orientations using azimuthal seismic refraction tomography: *Eos, Transactions, American Geophysical Union*.

*Talley, J., Becker, M.W., **Baker**, G.S., *Beyrle, N., 2004, Imaging channelized flow in bedrock fractures using ground penetrating radar: *National Ground Water Association / U.S Environmental Protection Agency Fractured Rock Conference*, Burlington, Vermont.

2003

Baker, G.S., Lawson, D.E., Evenson, E.B., Larson, G.J., and Alley R.B., 2003, Glaciogeophysics at Matanuska Glacier, Alaska: *Eos, Transactions, American Geophysical Union*.

- Baker**, G.S., *Pyke, K.A., Evenson, E.B., Larson, G.J., and Lawson, D.E., 2003, Ground penetrating radar analysis of moraine facies development and glaciotectonic deformation from 2001 to 2003, Matanuska Glacier, Alaska: *Geological Society of America Abstracts with Programs*, 35, no 7, 218.
- *Evenick, J., and **Baker**, G.S., 2003, Improving subsurface structural and stratigraphic analysis using trend surface residual anomaly maps: *Geological Society of America Abstracts with Programs*, 35, no 7, 338.
- *Jordan, T.E., and **Baker**, 2003, Amplitude Variation With Offset (AVO) Analysis of Ground Penetrating Radar Data for Direct Detection and Delineation of NAPL Contamination: *Eos, Transactions, American Geophysical Union*.
- *Jordan, T.E., and **Baker**, G.S., 2003, Field Testing APVO/GPR Techniques at a NAPL Contaminated Site: *SEG 2003 International Exposition and 73rd Annual Meeting*, Dallas, TX.
- Kopczynski S.E., Bigl, R., **Baker**, G.S., Delaney A.J., Finnegan, D.C., Holmes J.V., Andrews, J.L., 2003, Integrated approach to three-dimensionally modeling an aquifer in Alaska: *Geological Society of America Abstracts with Programs*, 35, no 7, 76.
- Kopczynski S.E., Snyder, C.F., Myse, T.A., **Baker**, G.S., Bigl, S.R., Finnegan, D.C., Delaney, A.J., and Holmes, J.V., 2003, Coupling near-surface geophysics with three-dimensional geological model building for environmental investigations: *Eos, Transactions, American Geophysical Union*.
- *Mayer, C.A., and **Baker**, G.S., 2003, Azimuthal Resistivity analysis using a capacitively-coupled resistivity meter for determining hydrologic properties: *Eos, Transactions, American Geophysical Union*.
- *Malinowski, M., and **Baker**, G.S., 2003, Effects of source energy and soil moisture on near-source, nonlinear deformation associated with near-surface seismic reflection sources: *SEG 2003 International Exposition and 73rd Annual Meeting*, Dallas, TX.
- *Pyke, K.A., **Baker** G.S., Alley, R., Evenson, E.B., Ensminger, S., Ham, N., Larson, G.J., and Lawson, D.E., 2003, Thick-skinned style glaciotectonics at an ice-cored moraine, Matanuska Glacier, Alaska: *Geological Society of America Abstracts with Programs*, 35, no 7, 299.
- *Sturtevant, K.A., **Baker**, G.S., Evenson, E.B., Larson, G.J., and Lawson, D.E., 2003, Tracking ice flow velocity at depth by monitoring metallic targets using ground penetrating radar: *Geological Society of America Abstracts with Programs*, 35, no 7, 191.

2002

- *Ambrose, H.M., **Baker**, G.S., Oleson, J.P., Sherwood, A., Reeves, M.B., de Bruijn, E., Pelc, M., 2002, High-Resolution Archaeological Geophysics Survey using Electrical Resistivity, Magnetic Gradiometry, and Ground-Penetrating Radar at a Second-Century Roman Fort, Humayma, Jordan: *GSA 2002 Abstracts with Programs*, 34, no 6, 380.

- * Ambrose, H.M., Sherwood, A., Oleson, J.P., **Baker**, G.S., de Bruijn, E., Reeves, M.B., 2002, Geophysical Investigations at Ancient Hawara, Jordan: *Am. Sch. of Oriental Res. 2002 Ann. Mtg., Expanded Abstracts*, 10-11.
- Baker**, G.S., Strasser, J.C., Evenson, E.B., Lawson, D.E., *Pyke, K., Bigl, R.A., 2002, Near-surface seismic reflection profiling on an active glacier: Environmental and Engineering Geophysical Society, *Symposium on the Application of Geophysics to Engineering & Environmental Problems*.
- * Johnson, J.J., Strasser, J.C., **Baker**, G.S., 2002, Nature and origin of buried ice within a recessional moraine, Matanuska Glacier, Alaska: *GSA 2002 Abstracts with Programs*, 34, no 2, A-85.
- * Jordan, T.E. and G.S. **Baker**, 2002, Amplitude and phase variation with offset analysis of ground penetrating radar data: Environmental and Engineering Geophysical Society, *Symposium on the Application of Geophysics to Engineering & Environmental Problems*, Las Vegas, Nevada.
- * Jordan, T. E. and G. **Baker**, 2002, Field testing amplitude and phase variation with offset (APVO) analysis of ground penetrating radar data, *SEG 2002 International Exposition and 72nd Annual Meeting*, Salt Lake City, Utah.
- * Malinowski, M.A., and **Baker**, G.S., 2002, Experimental Results of Energy and Soil-Moisture Effects on Nonlinear Deformation Associated with Near-Surface Seismic Reflection Sources: *GSA 2002 Abstracts with Programs* , 34, no 6 150.
- * Mayer, C.A., and **Baker**, G.S., 2002, Using Rapid Azimuthal Resistivity Surveying for Shallow Fracture Detection and Orientation Analyses in Groundwater Studies: Exp. Abst., *GSA 2002 Abstracts with Programs*, 34, no 2, 229.
- * Pyke, K., **Baker**, G.S., Ensminger, S., Evenson, E.B., Ham, N., Larson, G., Lawson, D., 2002, Ground Penetrating Radar Imaging of Glaciotectonic Sediment Deformation in an Ice-Cored Moraine Generated by Movement of the Buried Ice During a Re-advance of the Active Ice, Matanuska Glacier, Alaska: *Eos, Transactions, American Geophysical Union*, vol. 83, no. 48, p 392.
- * Trople, D., **Baker**, G.S., Bigl, R., Larson, G., Evenson, E.B., Lawson, D., 2002, An Innovative Technique for Using Ground Penetrating Radar to Track Ice-Flow Velocities at Depth, Matanuska Glacier, Alaska: *Eos, Transactions, American Geophysical Union*, vol. 83, no. 48, p 428.

2001

- Baker**, G. and *McIntyre, C., 2001, Rapid azimuthal resistivity data collection using a capacitively-coupled resistivity meter, 71st Ann. Internat. Mtg: Soc. of Expl. Geophys., 1459-1461.

Baker, G.S., and Steeples., D.W., 2001, Untrashallow seismic reflection monitoring of seasonal fluctuations in the water table: *GSA Abstracts with Programs*, 33, no 6, A-230.

*Jordan, T. and **Baker**, G., 2001, Amplitude and phase variation with offset (APVO) analysis of ground penetrating radar data, 71st Ann. Internat. Mtg: Soc. of Expl. Geophys., 1353-1356.

*McComb, S.W., **Baker**, G.S., and Strasser, J.C., 2001, Tap into student interest by tapping into polar science: *GSA Abstracts with Programs*.

*Pyke, K., **Baker**, G.S., Evenson, E.B., and Larson, G., 2001, Multitool Geophysical Analysis of Glacier Margin Dynamics, Matanuska Glacier, Alaska: *GSA Abstracts with Programs*, 33, no 6, A-230.

*Saunders, M.A., **Baker**, G.S., and *Budny, L., 2001, Integrating multiple geophysical methods for the characterization of bedrock geometry, Ischua Valley, New York: *GSA Abstracts with Programs*, 33, no 6, A-230.

2000

Astley, B.N., Delaney, A., Bigl, S.R., Snyder, C.F., Lawson, D.E., and **Baker**, G.S., 2000, Combining geophysical techniques for hydrogeologic modeling at Fort Richardson, Alaska: *GSA Abstracts with Programs*, Vol. 32, No. 7.

Baker, G., McIntyre, C., Walczak, L. and Steeples, D., 2000, Improving ultrashallow seismic reflection data by reducing source energy, 70th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1267-1270.

Baker, G.S., Steeples, D.W., Schmeissner, C., Spikes, K.T., 2000, Collecting seismic-reflection data from depths shallower than three meter: Environmental and Engineering Geophysical Society, Symposium on the Application of Geophysics to Engineering & Environmental Problems.

Baker, G.S., Strasser, J., Lawson, D.E., Evenson, E.B., and Bigl, R.A., 2000, Near Surface Seismic Reflection Data from an Active Temperate Glacier: *Eos, Transactions, American Geophysical Union*, vol. 81, no. 48, p 428.

*Dunlap, M., *Kibler, C., *Drechsel, C., and **Baker** G.S., 2000, Integrated GIS database of recorded earthquakes in the Western New York region: Sigma Xi Research Competition (Univ. at Buffalo Chapter) poster presentation, April 25, 2000.

*McIntyre, C., *Walczak, L., and **Baker** G.S., 2000, Swept-frequency acoustic seismic source: Sigma Xi Research Competition (Univ. at Buffalo Chapter) poster presentation, April 25, 2000.

Steeple, D.W., Schmeissner, C.M., and **Baker**, G.S., 2000, Applications of and recent developments in shallow seismic reflection: Abstract, SSA 95th Annual Meeting, April 10-12, San Diego, CA, in *Seismological Research Letters*, vol. 71, no. 2, March/April, p. 231.

1999

Baker, G., Steeples, D. and Schmeissner, C., 1999, On coincident seismic and radar imaging, 69th Ann. Internat. Mtg: Soc. of Expl. Geophys., 484-487. (The technical presentation of this paper was ranked in the top 25 out of 587.)

Baker, G.S., Steeples, D.W., and Schmeissner, C., 1999, Improved vadose-zone characterization in the upper 3 m of the subsurface using seismic and GPR imaging: *Geol. Soc. Amer., Abstracts with Programs*, Denver, CO.

Plumb, R.G., Steeples, D.W., **Baker**, G.S., Schmeissner, C., and Pavlovic, M., 1999, A Combined Ground-Penetrating Radar and Shallow Seismic-Reflection Approach to Characterize Hydrological Flow: Expanded Abstract, IGARSS '99, Germany.

Stephens, G.C., Starrs, J.E., and **Baker**, G.S., 1999, Results of the Geological and Geophysical Investigations of the Harewood Cemetery, Charles Town, West Virginia - a Cautionary Tale: American Academy of Forensic Sciences Annual Meeting.

1998

Baker, G.S., and Burkhart, P.A., Evenson, E.B., 1998, Improving the educational environment through daily graded assessments: an example from a six-week geology field course: *Geol. Soc. Amer., Abstracts with Programs*, vol 30, no 7, 256-257.

Baker, G. S., Plumb, R. J., Steeples, D. W., Pavlovic, M. and Schmeissner, C. M., 1998, Coincident GPR and ultra-shallow seismic imaging in the Arkansas River Valley, Great Bend, Kansas, 68th Ann. Internat. Mtg: Soc. of Expl. Geophys., 859-861.

Baker, G. S., Steeples, D. W., Schmeissner, C. M. and Macy, B. K., 1998, In-situ, high-resolution P-wave velocity measurements within 1 m of the Earth's surface, 68th Ann. Internat. Mtg: Soc. of Expl. Geophys., 856-858

Evenson, E.B., Myers, P.B., Stephens, G.C., Anastasio, D.J., Bebout, G.E., and **Baker**, G.S., 1998, Sharing the field camp experience with your undergraduates, opportunities for student/faculty group participation: The Lehigh cooperative model: *Geol. Soc. Amer., Abstracts with Programs*, vol 30, no 7.

Steeple, D.W., **Baker**, G.S., and Schmeissner, C., 1998, Toward the autojuggie: Planting 72 geophones in 2 seconds: *Eos, Transactions, American Geophysical Union*, Nov. 10.

Steeple, D. W., **Baker**, G. S., Schmeissner, C. M. and Macy, B. K., 1998, Geophones on a board, 68th Ann. Internat. Mtg: Soc. of Expl. Geophys., 862-865.

1997

Baker, G.S., and Steeples, D.W., 1997, Assessing shallow seismic reflection data quality as a non-seismologist: *Geol. Soc. Amer., Abstracts with Programs*, vol 29, no 6, 147.

1995

Baker, G.S., Clement, W.P., and Smithson, S.B., 1995, Amplitude and Phase Variations with Offset in Ground Penetrating Radar for Identifying Dense and Light Non-Aqueous Phase Liquid Contaminants: *Geol. Soc. Amer., Abstracts with Programs*, vol 27, no 6, 261.

Clement, W.P., **Baker**, G., Weedman, A., Atkins, J., and Smithson, S.B., 1995, Near surface geophysics in the Northern Rock Mountains: *Eos, Transactions, American Geophysical Union*, vol 76, no 46, 417-418.

1994

Baker, G.S., and Meltzer, A.S., 1994, Geophysical Log Investigation of Orbitally Forced Cyclostratigraphy in the Newark Basin, NJ.: *Geol. Soc. Amer., Abstracts with Programs*, vol 26, no 7, 402.

Professional Service

Short Courses

2009

“Geophysics for Water Resources and Contaminants” Short Course, Environmental and Engineering Geophysical Society, Fort Worth TX, March 2009.

2008

“Geophysics for Water Resources and Contaminants” Short Course, Environmental and Engineering Geophysical Society, Philadelphia PA, April 2008.

“Near-Surface Seismology” Short Course, Society of Exploration Geophysicists (SEG) Education Week Short Course, Houston TX, May 2008.

2007

“Near-Surface Seismology” Short Course, Society of Exploration Geophysicists (SEG) Education Week Short Course, Calgary, Canada, April 2007.

2006

“Near-Surface Seismic Reflection Data Acquisition & Processing” Workshop, Department of Geology and Geophysics, Texas A & M, invited workshop, College Station, TX, April 2006.

2001

“Near-Surface Seismic Reflection Data Processing” Workshop, Incorporated Research Institutions for Seismology (IRIS), invited workshop, Jackson Hole, WY, June 2001.

Technical Program Committee Member

2004

Society of Exploration Geophysicists, 74th Annual Meeting, Denver, CO, 2004.

2003

Society of Exploration Geophysicists, 73rd Annual Meeting, Dallas, TX, 2003.

2002

Society of Exploration Geophysicists, 72nd Annual Meeting, Salt Lake City, UT, 2002.

Session Advocate/Convener

2009

In the footsteps of Darwin the geologist: Celebrating Darwin's 200th birthday, Pardee session at the Geological Society of America 2009 Annual Meeting, Portland Oregon.

2006

Multitool Data Fusion, Society of Exploration Geophysicists, 76th Annual Meeting, New Orleans, Louisiana.

Hydrogeophysics, Society of Exploration Geophysicists, 76th Annual Meeting, New Orleans, Louisiana.

Seismic Reflection Acquisition and Processing, Society of Exploration Geophysicists, 76th Annual Meeting, New Orleans, Louisiana.

2004

Multitool Data Fusion, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado.

Hydrogeophysical Investigations, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado.

Seismic Acquisition and Processing, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado.

Experimental Geophysics, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado.

Recent Advances in Hydrogeophysics, Geological Association of Canada, the Mineralogical Association of Canada 2004 Annual Meeting, St. Catharines, ON, Canada.

2003

Advances in Stratigraphic Analyses Using Ground Penetrating Radar, Geological Society of

America 2003 Annual Meeting, Seattle, Washington.

Seismic and GPR, Society of Exploration Geophysicists, 73rd Annual Meeting, Salt Lake City, UT, 2003

New Directions in Near-Surface Geophysics, Society of Exploration Geophysicists, 73rd Annual Meeting, Salt Lake City, UT, 2003

2002

Geophysical Evaluation of Aquifer Properties, Geological Society of America 2002 Annual Meeting, Denver, Colorado.

1998

Field Camp Pedagogies: Adjusting to Modern Equipment and the Modern Student, Geological Society of America 1998 Annual Meeting.

Session Chairman/Co-Chairman

2009

In the footsteps of Darwin the geologist: Celebrating Darwin's 200th birthday, Pardee session at the Geological Society of America 2009 Annual Meeting, Portland Oregon.

2004

Hydrogeophysical Investigations, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado.

Hydrogeology II: Process Investigations, Geological Society of America 2004 Annual Meeting, Denver, Colorado

2003

Advances in Stratigraphic Analyses Using Ground Penetrating Radar, Geological Society of America 2003 Annual Meeting, Seattle, Washington.

Seismic and GPR, Society of Exploration Geophysicists, 72nd Annual Meeting, Salt Lake City, UT, 2003

2002

Geophysical Evaluation of Aquifer Properties, Geological Society of America 2002 Annual Meeting, Denver, Colorado.

1999

Influence of Soil Properties on Near Surface Geophysical Measurements, Society of Exploration Geophysicists 1999 International Exposition and 69th Annual Meeting.

1998

Field Camp Pedagogies: Adjusting to Modern Equipment and the Modern Student, Geological Society of America 1998 Annual Meeting.

Glaciology, Seventh International Conference on Ground-Penetrating Radar, 1998.

Shallow Marine Geophysics, Society of Exploration Geophysicists 1998 International Exposition and 68th Annual Meeting.

Organizational Memberships and Offices Held

American Geophysical Union, Member, 1994-present

Environmental and Engineering Geophysics Society
Member, 1998-present
Member At Large, Board of Directors, 2006-present

Geological Society of America, Member, 1993-present

National Association of Geoscience Teachers (NAGT), Member, 1999-present
Member, NAGT/USGS/AASG cooperative group, 2003-present

NSCOMM, Inter-Society Committee for the Advancement of Near-Surface Geophysics.
Composed of Rosemary Knight-Stanford Univ, Jeff Daniels-Ohio State Univ; Louise Pellerin-European SEG representative; Jeff Wynn-US Geological Survey and 2002 president of the EEGS society; Susan Hubbard-Lawrence Berkley Nat'l Lab; Pat Berge- Lawrence Livermore Nat'l Lab, and Gregory S Baker—Board member of the EEGS society

Sigma Xi (Full Member), 2000-present

Society of Exploration Geophysicists: Elected Active Member 1999-present
Past-President of Near-Surface Geophysics Section of SEG, 2004-2005
President of Near-Surface Geophysics Section of SEG, 2003-2004
President-Elect of Near-Surface Geophysics Section of SEG, 2002-2003
Vice-President of Near-Surface Geophysics Section of SEG, 2001-2002
Editor of the Near-Surface Geophysics Section bimonthly newsletter, 2000-2001

Secretary of Near Surface Geophysics Section of SEG, 1999-2000

Reviews

Journal Manuscript Reviews

Geophysics (1, 1998; 3, 1999; 4, 2000; 6, 2001; 12, 2002; 7, 2003; 3, 2004; 4, 2005; 2, 2006; 4, 2007; 6, 2008; 2, 2009)

Journal of Applied Geophysics (1, 1998; 1, 1999; 2, 2002; 1, 2005; 1, 2006; 3, 2008; 1, 2009)

Geophysical Research Letters (2, 1999; 2, 2001; 3, 2005; 1, 2006, 2, 2007; 3, 2008; 2, 2009)

International Journal of Remote Sensing (1, 2001)

Grant Proposal Reviews

Department of Energy (1; 2005; 3, 2006; 6, 2008; 2, 2009)

National Science Foundation (1, 1999; 4, 2000; 5, 2001; 4, 2002; 3, 2003; 2, 2004; 5, 2005; 2, 2006; 6, 2007; 4, 2008; 3, 2009)

Natural Environment Research Council (1, 2000; 1, 2002; 1, 2005; 1, 2009)

Abstract Reviews

Society of Exploration Geophysicists Expanded Abstracts for Annual Meetings (2, 1998; 4, 1999; 4, 2000; 26, 2002; 18, 2003; 32, 2004; 20, 2005; 18, 2006; 9, 2007; 6, 2008)

Proceedings of the International Conference on Ground-Penetrating Radar (4, 1998; 6, 2006)

Symposium on the Application of Geophysics to Engineering and Environmental Problems (3, 2000; 3, 2001; 8, 2007; 4, 2008)

Book Reviews

American Association for the Advancement of Science (2, 2000; 1, 2001; 1, 2002; 1, 2003; 1, 2007)

Invited Lectures and Presentations (without published abstract)

2008

“Advances in Hydrogeophysics” Invited seminar presented to the Department of Geology, State University of New York at Geneseo, “Fifth Annual American Rock Salt Lecturer” April

2008.

"Recent advances of seismic applications in environmental geophysics," Invited lecture presented at the International Conference on Environment and Engineering Geophysics (ICEEG), Wuhan, China, June 16-20, 2008. (Special invited guest of the China University of Geosciences.)

2006

"Advances in Hydrogeophysics" Invited seminar presented to the Department of Geology and Geophysics, Texas A & M, invited workshop, College Station, TX, April 2006.

2005

"Alpine glaciers, bedrock fractures, groundwater pollutants, evolving mountain-belts, Mars analogues, Roman forts: The many faces of near-surface geophysics," Invited seminar presented to the Dept. of Earth and Environmental Sciences, Lehigh University, April 2005.

"Alpine glaciers, bedrock fractures, groundwater pollutants, evolving mountain-belts, Mars analogues, Roman forts: The many faces of near-surface geophysics," Invited seminar presented to the Dept. of Earth and Planetary Sciences, University of Tennessee, February 2005.

2004

"Hydrogeophysics and Fractured Rock Applications," Invited seminar presented at the Buffalo Association of Professional Geologists (BAPG), Buffalo NY, November 2004.

"Applications of Near-Surface Geophysical Imaging in Jordanian Archaeology and Alaskan Glaciology," Invited seminar presented to the Dept. of Geology and Planetary Sciences, University Pittsburgh, October 2004.

"Hydrogeophysics and Fractured Rock Applications," Invited seminar presented at the Geomatrix 2004 Hydrogeology Discipline Meeting, Buffalo NY, September 2004.

2003

"Applications of Near-Surface Geophysical Imaging in Jordanian Archaeology and Alaskan Glaciology," Invited seminar presented to the Dept. of Geology, University at Buffalo, April 2003.

"Fire and Ice: Applications of Near-Surface Geophysical Imaging in Jordanian Archaeology and Alaskan Glaciology," Invited seminar presented to the Dept. of Geology, University of Delaware, February 2003.

"Fire and Ice: Applications of Near-Surface Geophysical Imaging in Jordanian Archaeology and Alaskan Glaciology," Invited seminar presented to the Dept. of Geology, University of

Kansas, February 2003.

2001

“Sparkplugs, Farm Plows, and Speakers: Stupid (but successful) Experiments of a Geophysicist,” Invited seminar presented to the Dept. of Geology at SUNY Binghamton, February 2001.

“Sparkplugs, Farm Plows, and Speakers: Stupid (but successful) Experiments of a Geophysicist,” Invited seminar presented to the Dept. of Geology at SUNY Geneseo, October 2001.

2000

“Sparkplugs, Farm Plows, and Speakers: Stupid (but successful) Experiments of a Geophysicist,” Invited lecture presented at the Western New York Science and Technology Forum, University at Buffalo, Oct. 18, 2000.

“Sparkplugs, Farm Plows, and Speakers: Stupid (but successful) Experiments of a Geophysicist,” Invited seminar presented to the Dept. of Geology at Slippery Rock University, Oct. 25, 2000.

1999

“Applications and Technological Advances in Environmental Geophysics,” Invited seminar presented to the Dept. of Geology at the University of Massachusetts, Oct. 15, 1999.

“Geophysical Reflection Imaging of Near-Surface Stratigraphy,” Invited seminar presented to the Dept. of Geology at Wright State University, April 8, 1999.

“Geophysical Reflection Imaging of Near-Surface Stratigraphy,” Invited seminar presented to the Dept. of Geology at The University of Kansas, March 18, 1999.

“Geophysical Reflection Imaging of Near-Surface Stratigraphy,” Invited seminar presented to the Dept. of Geology at SUNY Stony Brook, March 5, 1999.

“Geophysical Reflection Imaging of Near-Surface Stratigraphy,” Invited seminar presented to the Dept. of Earth and Atmospheric Science at Purdue University, March 2, 1999.

“Geophysical Reflection Imaging of Near-Surface Stratigraphy,” Invited seminar presented to the Dept. of Geology at Kansas State University, Feb. 2, 1999.

Public Relations/Publicity

2008

“Private sector slowly following government’s lead,” interviewed by Josh Flory, Knoxville News

Sentinel, and published 4/21/08.

“Sites on the solar energy tour,” interviewed by Josh Flory, Knoxville News Sentinel, and published 9/29/08.

“Knoxville roofs catch some rays—solar tour to display panels at private homes/businesses,” interviewed by David Smith, Knoxville News Sentinel, and published 9/30/08.

2006

“Karst and sinkholes in East Tennessee,” interviewed by Ben Senger, WBIR Channel 10 news, and aired on 2/24/06.

2004

“Geophysics, GPS Technology Play Important Roles In Excavation Of Ancient Roman Fort,” on University at Buffalo National News 10/22/04, www.buffalo.edu/news.

“Geophysics, GPS Technology Play Important Roles In Excavation Of Ancient Roman Fort,” on ScienceDaily 10/25/04, www.sciencedaily.com.

“Geophysics, GPS Technology Play Important Roles In Excavation Of Ancient Roman Fort,” on Archaeologica 10/25/04, www.archaeologica.com.

2003

“Glaciers at Work,” written by Jan A Piotrowski, in “News and Views” review in *Nature*, 14 August 2003, Volume 424, 737-738.

“Dirty Glaciers: Research Explains Why Some Glaciers Get Dirty,” written by Lee Dye, on ABCNEWS.com, August 21st, 2003.

“UB professor talks about bringing more and different people into the field of earth sciences,” on WBFO by Gabe DiMaio, January 3rd, 2003.

2002

“Using non-invasive tools, UB Geophysicists find an ancient settlement buried beneath a Roman fort in the Jordanian Desert,” on WBFO by Gabe DiMaio, November 29th, 2002

“Romans on top” (Geophysics for Archaeology), *New Scientist*, vol 176 issue 2368 - 09 November 2002, page 26.

“Geophysicists find ancient settlement” by Ellen Goldbaum 2002, *UB Reporter*, 34, no 6, 4.

Professional and Academic Honors

Early Career Award, awarded in 2008 by the Environmental & Engineering Geophysical Society, to acknowledge academic excellence in the field of near-surface geophysics. The award, presented annually to a full-time faculty member who is within ten years following completion of the Ph.D., acknowledges significant and ongoing contributions to environmental and engineering geophysics.

Quest's Scholar of the Week, University of Tennessee, April 2009

Selected to AcademicKeys Who's Who in Sciences Higher Education (WWSHE), Spring 2006

Outstanding Service award, Near-surface Geophysics Section of the Society of Exploration Geophysicists, Presented Fall 2005

Certificate of Recognition, University at Buffalo Class of 2003 "Year After Graduation" Student Survey of Undergraduate and Graduate Students, Presented Spring 2005

Selected to University at Buffalo, College of Arts and Sciences Honor Roll of Top Teachers, 2003-2004

Selected to University at Buffalo, College of Arts and Sciences Honor Roll of Top Teachers, 2002-2003

Selected to University at Buffalo, College of Arts and Sciences Honor Roll of Top Teachers, 2001-2002

Milton Plesur 2001 Excellence in Teaching Award, presented by the Student Association of the University at Buffalo (SUNY) to recognize teaching excellence and commitment to students. Recipients of the Plesur award are student-nominated and selected.

Top-25 ranked technical presentation (out of 587) at Society of Exploration Geophysicists (SEG) 1999 National meeting

Erasmus Haworth Graduate Honors Award for Outstanding Doctoral Student, Dept. of Geology, Univ. of Kansas, 1999

Outstanding Graduate Teaching Award, Dept. of Physics and Astronomy (Intro. to Meteorology), Univ. of Kansas, 1998

Dean A. McGee Scholarship, Dept. of Geology, Univ. of Kansas, 1996 - 1998

Society of Exploration Geophysicists (SEG) Scholarship, 1996 - 1999

Donnel Foster Hewett Award, Dept. of Earth and Env. Sci., Lehigh University, 1992

Top Field Geologist Award, Dept. of Earth and Env. Sci., Lehigh University, 1991

University Service (University of Tennessee, 2005-present)

University

Ambassador: University of Tennessee Teaching & Learning Center (TENN TLC), 2009-present

Member: Classroom & Instructional Technology Improvement Subcommittee (Dr. Bill Dunne, Subcommittee Chair), 2006-present

Member: Synchronous Learning Task Force (Dr. Bill Dunne, Task Force Chair), 2007-2008

College of Arts and Sciences

Undergraduate Advisor, College of Arts and Sciences Advising Center, 2005-present

Member, Earth & Planetary Sciences Department Head search committee, 2008-2009

Department of Earth & Planetary Sciences

Co-Director of Undergraduate Studies, Dept. of Earth and Planetary Sciences, 2005-present

Chair, Adjunct Faculty Appointments Committee, 2008-present

Chair, Departmental Teaching Peer Review Committee (Dr. Micah Jessup), 2009

Chair, Geology Introductory Course Sequence Evaluation Committee (GICSEC), 2006-2007

Field Camp Advisor, Dept. of Earth and Planetary Sciences, 2005-present

Member: Faculty Search Committee, Structural Geologist Position, Fall 2005

University Service (University at Buffalo, 1999-2005)

University

Alternate Representative, University at Buffalo Faculty Senate, 1999-2004

Founder, *University at Buffalo Journal of Undergraduate Research* (UBJUR), 2001

Editor, *University at Buffalo Journal of Undergraduate Research* (UBJUR), 2001-present

College of Arts and Sciences

Member, College of Arts and Sciences Student Academic Life Committee, Univ. at Buffalo, 2000-2004

Department of Geology

Director of Undergraduate Studies, Department of Geology, 2000-2005

Director, Summer Geology Field Program ("Field Camp"), Department of Geology, 2001-2005

Departmental Web Site Supervisor, Dept. of Geology, 2000-2004

Chairman, Department of Geology Rock Garden Committee, Dept. of Geology, 2000-2002

Member, Technician Search Committee, Dept. of Geology, 2002

Member, BS Degree Program Development Committee, Dept. of Geology, 2000

Member, Introductory Course Restructuring Committee, Dept. of Geology, 2000-2002

Community Service

Member, 2009 Knox County Solar Tour, Knoxville TN, 2009

Pro-bono consulting for Old Virginia Beareu of Investigation, Roanoke VA, 2007

Board of Directors, Western New York Land Conservancy, East Aurora, NY, 2000-2004

Pro-bono consulting for Old Fort Niagara Association at the Fort Niagara Site, Niagara Falls, NY, 2001-2004

Pro-bono consulting for Gettysburg Historical Association at a site near the Gettysburg battlefield, Gettysburg, PA, 2002-2004

Pro-bono consulting for Buffalo Conservation Coalition at the Erie Canal Terminus Site, Downtown Buffalo, NY, 2000

Courses Taught (University of Tennessee, 2005-present)

<u>Semester</u>	<u>Course*</u>	<u>Title</u>	<u>Credit Hours</u>	<u>Enrmt. Ugr/Gr</u>
Summer 2009	Geology 101	Honors: Energy Resources Field Course	4	18/0

Spring 2009	Geology 470	Applied Geophysics	3	10/3
Spring 2009	Geology 675	Seminar in Geophysics	3	0/3
Fall 2008	Geology 101	Dynamic Earth	4	146/0
Summer 2008	Geology 471	TINGS (Near-Surface Geophysics Field Course)	3	7/6
Spring 2008	Geology 590	Sequence Stratigraphy	3	0/6
Fall 2007	Geology 101	Dynamic Earth	4	146/0
Fall 2006	Geology 101	Dynamic Earth	4	147/0
Summer 2006	Geology 471	TINGS (Near-Surface Geophysics Field Course)	3	4/7
Spring 2006	Geology 470	Applied Geophysics	3	3/5
Fall 2005	Geology 101	Dynamic Earth	4	148/0

*100-level course are introductory sequences, 400/500- level courses are upper-level undergraduate electives and/or lower level graduate courses, and 600-level courses and above are graduate courses.

Courses Taught (University at Buffalo, 1999-2005)

<u>Semester</u>	<u>Course*</u>	<u>Title</u>	<u>Credit Hours</u>	<u>Enrmt. Ugr/Gr</u>
Summer 2005	GLY 407/507	Geological Field Training (Director)	6/2	40/0
Spring 2005	GLY 419/519	Environmental Geophysics	3/3	15/5
Fall 2004	GLY 101 GLY 325	Global Environmental Science Geophysics/Tectonics	4 4	240 30
Summer 2004	GLY 407/507	Geological Field Training (Director)	6/2	38/2
Fall 2003	GLY 101 GLY 521	Global Environmental Science Hydrogeophysics	4 3	205 9
Summer 2003	GLY 407/507	Geological Field Training (Director)	6/2	37/1
Spring 2003	GLY 419/519	Environmental Geophysics	3/3	7/5
Fall 2002	GLY 101 GLY 325	Global Environmental Science Geophysics/Tectonics	4 4	186 23
Summer 2002	GLY 407/507	Geological Field Training (Director)	6/2	38/2

Spring 2002	GLY 419/519	Environmental Geophysics	3/3	10/5
Fall 2001	GLY 101 GLY 325	Global Environmental Science Geophysics/Tectonics	4 4	170 12
Summer 2001	GLY 407/507	Geological Field Training (Instructor)	6/2	40/0
Spring 2001	GLY 419/519	Environmental Geophysics	3/3	1/8
Fall 2000	GLY 101 GLY 325	Global Environmental Science Geophysics/Tectonics	4 4	106 16
Summer 2000	GLY 407/507	Geological Field Training (Instructor)	6/2	39/1
Spring 2000	GLY 326	Geophysics/Tectonics	4	31/1
Fall 1999	GLY 101	Global Environmental Science	4	74

*100-level course are introductory sequences, 300-level courses are upper-level undergraduate major sequence courses, 400-level courses are upper-level undergraduate electives, and 500-level courses are graduate courses. Courses indicated with two numbers (4**/5**) are cross-listed for both undergraduate and graduate students.

Other Teaching Activities

Formal

<u>Semester</u>	<u>Supervising Institution</u>	<u>Course #</u>	<u>Course Name</u>	<u>Length/ Credits</u>	<u>Enrmt.</u>
Sum 2009	UT	Geol 101	Earth's Energy Resources (Introductory Honors Field Course in WY, CO, UT)	3 wks 1 cr	TBA
Spr 2009	EEGS	N/A	Geophysics for Water Resources and Contaminants	1 da	18
Spr 2008	EEGS	N/A	Geophysics for Water Resources and Contaminants	1 da	15
Spr 2007	SUNY Geneseo	N/A	Near Surface Seismology	1 wk n/a	9
Spr 2006	TX A&M	N/A	Near Surface Seismology	1 wk n/a	14
Sum 2002	NW Missouri	N/A	NSF Research Experiences for Undergrads (REU) Program, Matanuska Glacier,	4wks	6

Sum 2001	Augustana College	N/A	Alaska NSF Research Experiences for Undergrads (REU) Program, Matanuska Glacier, Alaska	4 wks	5
Sum 2000	Augustana College	N/A	Alaska NSF Research Experiences for Undergrads (REU) Program, Matanuska Glacier, Alaska	4 wks	6
Sum 1999	Lehigh Univ.	EES 41	Introductory Geology in the Rocky Mountains	6.5 wks/ 6 cr	24
Sum 1998	Lehigh Univ	EES 41	Introductory Geology in the Rocky Mountains	6.5 wks/ 6 cr	28
Sum 1997	Lehigh Univ	EES 41	Introductory Geology in the Rocky Mountains	6.5 wks/ 6 cr	34
Sum 1996	Lehigh Univ	EES 41	Introductory Geology in the Rocky Mountains	6.5 wks/ 6 cr	26

Informal

Led optional 4-day field trip for students attending the American Geophysical Union conference (5 students attending) through the Seirra Nevada Mountains and Yosemite Nat'l Park (California), Fall 2008.

Led optional 4-day field trip for students attending the Geological Society of America conference (7 students attending) through the Northern Rocky Mountains (Wyoming, Colorado), Fall 2006.

Led optional 5-day field trip for students in Geophysics/Tectonics class (generally 18-26 students attending) through the Taconic orogen (New York, Vermont, New Hampshire), Fall 1999, 2000, 2001, 2002, 2003, 2004.

Led optional weekend Niagara Falls field trip for students in introductory Global Environmental Science class (generally 18-35 students attending), Fall 1999, 2000, 2001.

Organized and participated in van trip to Boston, MA, for a national geology conference (GSA), and led informal field trips in the region (16 students attended) Fall 2001.

Organized and participated in van trip to Burlington, VT, for a regional geology conference (NE-GSA), and led informal field trips in the region (15 students attended) Fall 2000.

Organized and participated in van trip to Denver, CO, for a national geology conference (GSA), and led informal field trips in the Rocky Mountains (9 students attended: 7 graduate students from SUNY Buffalo; 2 from SUNY Fredonia), Fall 1999.

Supervised Students

Graduate Students, Major Advisor

In Progress Ph.D.

Megan Carr, Ph.D. ABD, 2007-present

David Gaines, Ph.D. ABD, 2006-present

Prasanta Yeluru, Ph.D. ABD, 2007-present

Graduated Ph.D.

Laura Gilcrist, 2009, Component analysis of very near surface seismic wave propagation and an examination of resonant frequencies in three soils: PhD dissertation, University at Buffalo/University of Tennessee.

Vaughan, Raymond, 2007, A method of three-dimensional gravity modeling to obtain subsurface density, illustrated by data from Western New York State: PhD dissertation, University at Buffalo/University of Tennessee.

Jordan, Thomas, 2003, Amplitude and phase variation with offset (APVO) analysis of ground penetrating radar data: PhD dissertation, University at Buffalo.

In Progress M.S.

None.

Graduated M.S.

Ambrose, H.M., 2005, Improving archaeological geophysics surveys through improved visualization and multitool data integration, M.S. thesis, University at Buffalo.

Beyrle, Nicholas, 2005, Using polarized ground penetrating radar to improve subsurface imaging of bedrock fractures, M.S. thesis, University at Buffalo.

Burns, K.E., 2008, Ground penetrating radar investigations on the relationship between horizontal sub-wavelength 'thin layer' bedrock fractures and reflection amplitudes: M.S. thesis, University of Tennessee.

Evenick, Jonathan, 2002, An Investigation of the Subsurface Geology of Northeastern Chautauqua County, New York: M.S. thesis, University at Buffalo.

Malinowski, Matthew, 2004, Effects of source energy and soil moisture on near-source, nonlinear deformation associated with near-surface seismic reflection sources: M.A. thesis, University at Buffalo.

Mayer, Calista M., 2004, Azimuthal resistivity analysis using a capacitively-coupled resistivity meter for the determination of fracture orientations: M.S. thesis, University at Buffalo.

Saunders, Mark D., 2003, Integrating multiple geophysical methods to determine depth to bedrock and subsurface stratigraphy in a buried glacial valley: Ischua Valley, Cattaraugus County, New York: M.S. thesis, University at Buffalo.

Stokes, Philip J., 2007, Ground penetrating radar investigation of the Late Quaternary Hiscock site, Western New York State, USA: M.S., thesis, University at Buffalo.

Sturtevant, Kristin A., 2007, Integrating multiple geophysical techniques to analyze geologic controls of riparian meadow complexes, Central Great Basin, NV: M.S., thesis, University at Buffalo.

Talley, Jennifer, 2005, Imaging channelized flow in fractured rock using GPR: M.S., thesis, University at Buffalo.

Graduate Students, Thesis/Dissertation Committee Member

In Progress

Hardgrove, Craig, Ph.D. candidate, 2006-present

Graduated

Boehm, David, MS 2003, A comparative study of seasonal bluff erosion at Lakeside Beach State Park, Orleans County, New York: University at Buffalo.

Budny, Lucas E., MS 2002, An Innovative Method for Ascertaining Tortuosities in Dry and Moist Porous Media and the Delineation of Tectonic Structures Using Soil Gas in Southern Seneca and Northern Schuyler Counties, New York: University at Buffalo.

Cruz, Cheri, MS 2005, Comparison of lineament analysis from remote sensing data with field data: University at Buffalo.

Fredrick, Kyle C., 2008, Determining effective data requirements for evaluating regional aquifers using the analytic element method: University at Buffalo.

Goudy, Cheryl, MS 2002, Wrinkle Ridges of Hesperia Planum, Mars: Implications for the Evolution of Ridges Plains: University at Buffalo.

Nettles, Jeff, PhD 2007, Characterization of the least-melted chondrules in meteorites and impact on nebular sorting. PhD University of Tennessee

Schuetz, James W., MS 2002, Numerical modeling of seasonal variability in ground-water flow near Mirror Lake, Grafton County, New Hampshire: University at Buffalo.

Spitzer-List, Tara M., PhD 2003, The use of surface temperatures and temperature profiles to identify and quantify ground-water discharge and recharge areas in wetlands: University at Buffalo.

Graduate Students, Other Activities

Todd C. Witmer, Independent Graduate Research, 2001
Lucas Bundy, Independent Graduate Research, 2001
Paul Zaratini, Independent Graduate Research, 2000

Undergraduate Students, Supervised research and other activities

James A. Pratt, Independent Research, Spring 2008-present
Morgan Braxton-Sears, Independent Research, Fall 2007-present
Brittany Davis, Senior Thesis Research, Spring 2006
Cheri Drechsel, Independent Research, Spring 2000
Mike Dunlap, Independent Research, Spring 2000
Chris Kibler, Independent Research, Spring 2000, Fall 2000
Adiel Gavish, Independent Research, 2002
Laura Gilchrist, Senior Thesis Research, 2002-2003
Theresa Lawler, Senior Thesis Research, 2001-2002
Calista McIntyre, Senior Thesis Research, 1999-2002
Robert Piurek, Independent Research, 2002-2003
James Pratt, Independent Research, 2007-present
Kendra Pyke, Senior Thesis Research, 1999-2002
Mark Saunders, Independent Research, Spring 2000
Kristin Sturtevant, Senior Thesis Research, 2002-2004
William Shaffer, Independent Research, 2002
Jennifer Talley, Independent Research, 2002
Laura Walzcak, Independent Research, 2000-2001

Honors and Awards of Supervised Students

2007

Best Paper Award, Kristin Sturtevant for “Combining Multiple Seismic and Ground Penetrating Radar Techniques to Analyze Shallow Structure and Stratigraphy Associated With Riparian Meadow Complexes, Central Great Basin, Nevada USA” presented at the 2007 Symposium of Application in Geophysics for Environmental & Engineering Problems. Dallas, TX. April 13-18, 2007.

2006

Best Poster Presentation (\$650), Kristin Sturtevant for “Combining Multiple Seismic and Ground Penetrating Radar Techniques to Analyze Shallow Structure and Stratigraphy Associated With Riparian Meadow Complexes, Central Great Basin, Nevada USA” presented at the 2006 Rocky Mountain Rendezvous of Geoscience Students and Employers, sponsored by AAPG and RMS-AAPG, sanctioned by SEG and GSA. Hosted by University of Wyoming Geology and Geophysics, Laramie. October 1-2, 2006.

McLaughlin Undergraduate Award (\$650), Brittany Davis for undergraduate course work at the University of Tennessee.

Reginald H. Pegrum Student Travel Grant (\$350), Kristin Sturtevant for Geological Society of America National Meeting, M.S. Candidate.

Kenneth N. Weaver Student Travel Grant (\$250), Kristin Sturtevant for Geological Society of America Northeastern Section Meeting, M.S. Candidate.

Reginald H. Pegrum Student Travel Grant (\$350), Phil J. Stokes for Geological Society of America National Meeting, M.S. Candidate.

Kenneth N. Weaver Student Travel Grant (\$250), Phil J. Stokes for Geological Society of America Northeastern Section Meeting, M.S. Candidate.

Mark Diamond Research Fund, University at Buffalo Graduate Student Association (\$450), Phil J. Stokes for “Geophysical imaging of a fossiliferous Pleistocene basin in Western New York” M.S. Candidate.

2005

Reginald H. Pegrum Student Travel Grant (\$350), Kristin Sturtevant for Geological Society of America National Meeting, M.S. Candidate.

Reginald H. Pegrum Student Travel Grant (\$350), Phil J. Stokes for Geological Society of America National Meeting, M.S. Candidate.

Kenneth N. Weaver Student Travel Grant (\$250), Phil J. Stokes for Geological Society of America Northeastern Section Meeting, M.S. Candidate.

Geological Society of America Research Grant (\$1500), Phil J. Stokes for “Geophysical imaging of a fossiliferous Pleistocene basin in Western New York” M.S. Candidate.

2004

Geophysics Division Award (Geological Society of America) for best student paper, Klaus Beyrle for “Using multiple polarization of ground penetrating radar to generate three-dimensional subsurface images of bedrock fractures” M.S. Candidate.

Best Student Presentation (National Ground Water Association / U.S Environmental Protection Agency Fractured Rock Conference), Jenn Talley, for Talley J., Becker, M.W., Baker, G.S., Beyrle, N., 2004, Imaging channelized flow in bedrock fractures using ground penetrating radar: National Ground Water Association / U.S Environmental Protection Agency Fractured Rock Conference, Portland, Maine. M.S. candidate.

2002

Sigma Xi Research Award, Calista McIntyre (Mayer) for “Azimuthal resistivity analysis using a capacitively-coupled resistivity meter for the determination of fracture orientations” M.S.

candidate.