

## **Kevin P. Czajkowski**

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### **Education**

- 1995 Ph.D. Atmospheric Sciences, University of Michigan, Ann Arbor, MI 48109.  
Incorporation of Physical Hydrology into a Land-surface Process Model.  
Advisor: William Kuhn
- 1989 B.S. Meteorology, State University of New York at Oneonta, Oneonta, NY 13820.  
Graduated Summa Cum Laude.

### **Positions Held**

- 2010 to present Professor, Department of Geography and Planning, University of Toledo.
- Teach Weather and Climate, Physical Geography, Remote Sensing, and teacher professional development courses.
- 2005 to 2010, 2015 to present Director of the Geographic Information Science and Applied Geographics (GISAG) Lab, The University of Toledo.
- 2003 to 2010 Associate Professor, Department of Geography and Planning, University of Toledo.
- 1998 to 2003 Assistant Professor, Department of Geography and Planning, University of Toledo.
- 1995 to 1998 Assistant Research Scientist, Department of Geography, University of Maryland
- 1990 to 1995 Graduate Research Assistant with Dr. William Kuhn, University of Michigan.
- Southern Oxidants Research Program on Ozone Non-Attainment.
  - Participated in the Coupled Climate System Modeling Workshop held at the University of Wisconsin, Madison, Wisconsin, 7/14 to 7/26/91.

### **Awards**

- 2019 President's Award for Excellence in Research, University of Toledo
- 2017 President's Award for Excellence in Grantsmanship, University of Toledo
- 2012 Outstanding Researcher of the Year Award, University of Toledo
- 2007 Commendation from Ohio House of Representatives for K-12 Outreach efforts.
- 2004 & 2005 Nominated for Outstanding Teacher Award, University of Toledo.
- 2003 Nominated for Outstanding Researcher Award, University of Toledo.
- 1993 to 1995 NASA Graduate Student Fellowship in Global Change Research.

### **Teaching Experience**

*The University of Toledo, Department of Geography and Planning*  
GEPL 3540 now GEPL 4540/5540 Weather and Climate  
GEPL 3550 now GEPL 4550/5550 Physical Geography  
GEPL 4490/5490 Remote Sensing of the Environment  
GEPL 4500/5500 Digital Image Analysis  
GEPL 4910/5910 GIS Applications in the Lake Erie Region

GEPL 5910 Remote Sensing Seminar for Teachers  
GEPL 6910 Global Change and Remote Sensing Teacher Seminar  
GEPL 6200 Earth System Science for Teachers  
GEPL 6930 Advanced Climatology  
SISS 7020 Geospatial Technologies in SISS  
SISS 8200 SISS and the Environment

*George Washington University, Department of Geography*  
Geog 110, Climate and Human Ecology, George Washington University Geography  
Department, Spring 1998.

*University of Maryland, Department of Geography*  
GEOG 345, Climatology, a Gateway course for Geography undergraduate majors, the  
University of Maryland Geography Department, fall 1996 and 1997

**External Grants (total \$24,737,785 from 1999 to present)**

- Co-I (Refsnider) – NSF REU, REU Site: Undergraduate Research and Mentoring - Using the Lake Erie Sensor Network to Study Land-Lake Ecological Linkages, \$346,356, Feb 2019 to Jan. 2022.
- PI – NOAA B-Wet, Engaging Students and Teachers Through GLOBE: Authentic Watershed Studies in the Maumee and Lake Erie Watersheds, \$65,897, Jan. 2019 to June 2020.
- Co-I (Ames) – Ohio Dept Higher Ed, HAB associated health effects among recreational lake users, \$131,737, Feb, 2018 – Jan 2020.
- Co-I (Rai) - Ohio Dept Higher Ed, Effectiveness In Implementation: Mapping Agricultural Management Practices, Farmer Perceptions And Outcomes, \$120,889, Feb, 2018 – Jan 2020.
- PI – NSF I-Corps, I-Corps: 3-Dimensional Data Output from Remote Sensing Derived Algorithms, \$50,000, May-Dec. 2017.
- PI – Lake Erie Protection Fund, BMP Development for Swan Creek Watershed: Pilot, \$15,000, January – December 2017.
- PI – EPA (Great Lakes Restoration Initiative), Invasive Species Prevention from Retailers via Metagenetics, Supply Chains, and Public/Stakeholder Engagement, \$499,991, Feb. 1, 2016 to March 31, 2018.
- PI – NASA, Mission Earth: Fusing GLOBE with NASA Assets to Build Systemic Innovation in STEM Education, \$6,868,402, January 1, 2016 to December 31, 2020.
- PI -NSF, REU Site: Undergraduate Research and Mentoring-Using the Lake Erie Sensor Network to Study Land-Lake Ecological Linkages. \$322,943, April 1, 2015 to March 31, 2018.
- PI – NASA Langley, Developing Online Protocol Modules to Engage Citizen Scientists for GLOBE, \$73,362, March 1, 2015 to Dec. 31, 2015.
- Co-I-NSF, (Schlemper), Advancing Geospatial Thinking and Technologies in Grades 9-12: Citizen Mapping, Community Engagement, and Career Preparation in STEM,” \$573,981.00, *National Science Foundation*, DRL, ITEST, September 2014 - August 2017.
- PI – Ohio Sea Grant, Mapping Drain Tile and Modeling Agricultural Contribution to Nonpoint Source Pollution in the Western Lake Erie Basin, \$76,308, Feb. 1, 2014 to Jan. 31, 2016.

PI – Ohio Space Grant and GLOBE, GLOBE Teacher Training, \$8,800, Jan. 1, 2012 to June 30, 2013.

PI – NSF, Supplement to LEADERS: Leadership of Educators: Academics for Driving Economic Revitalization in Science, \$58,244, June 1, 2012 to May 31, 2013.

Co-I-NASA (Applied GeoSolutions), Developing an Operational Tillage Information System, \$46,887, 9-1-2011 to 8-31-2013.

PI-USDA, Monitoring Agricultural Sewage Sludge Application, OH, \$468,000, January 1, 2011 December 31, 2013.

PI, NASA GCCE, Climate change education: engaging teachers and students and correcting misperceptions using NASA data, \$377,251, Oct. 1, 2010 to Sept. 30, 2013.

PI, EPA GLRI, Prevention of Surface Water Contamination from Biosolids Application, \$550,228, Sept. 30, 2010 to Sept 29, 2012.

Co-I (Stepien) NSF FSML, Environmental Sensor Network for the Lake Erie Center, \$350,000, August 15, 2010 to July 31, 2013.

PI-NSF MSP, LEADERS: Leadership of Educators: Academics for Driving Economic Revitalization in Science, \$5,000,000, Sept. 1, 2009 to Aug. 31, 2014.

PI-USDA, Monitoring Agricultural Sewage Sludge Application, OH, \$785,304, August 1, 2009 to July 31, 2012.

Co-I, (Khare), NSF CRI Program, II-NEW: High-Performance Scalable Computing Infrastructure, \$174,988, August 1, 2009 - July 31, 2012.

PI-Ohio Space Grant Consortium, Space Grant Support of SATELLITES, \$14,888, June 1, 2008-May 31, 2009.

PI-USDA, Investigating Potential Human Health Impacts of Sewage Sludge Applied to Agricultural Fields, \$836,493, August 1, 2008 to July 31, 2011.

PI-Northwest Ohio Center for Excellence, SATELLITES, \$20,000, March 1, 2008 to Aug. 31, 2008.

PI-Ohio Board of Regents Improving Teacher Quality Program, SATELLITES: Using Geospatial Technology to Teach Science in Cleveland Municipal Schools, \$117,024, January 1- 2008 to May 30, 2009.

PI-NASA IPY (International Polar Year), SATELLITES IPY Application, \$220,718, July 1, 2007 to June 30, 2009.

PI-Ohio State University-USDA, Monitoring Agricultural Sewage Sludge, \$845,017, July 1, 2007 to June 30, 2008.

PI- Ohio Board of Regents Improving Teacher Quality Program, SATELLITES: Using Geospatial Technology to Teach Science in Cleveland Municipal Schools, \$57,821, January 1- 2006 to May 30, 2007.

Co-I-(Stepien), NSF-FSML, Planning Proposal for the Lake Erie Center, \$24,888, Jan. 1, 2007 to Dec. 31, 2009.

PI-IGES, Implementation of Earth System Science Education Alliance in Ohio focusing on Urban and Minority Teachers, \$20,000, June 1, 2007 to May 31, 2009.

PI-Ohio Space Grant Consortium, SATELLITES: Using Geospatial Technology to Teach Science in Cleveland Municipal Schools, \$34,888, May 30, 2006 to May 30, 2009.

PI-USDA, Monitoring Agricultural Sewage Sludge, \$1,192,586, June 15, 2006 to June 14, 2009.

PI-USDA, Maumee River Watershed GIS and Remote Sensing, \$400,000, October 1, 2005 to September 30, 2010.

PI-Central State University (US Bureau of Reclamation), OhioView Assistance of Bureau of Reclamation, \$47,624, January 1, 2005-December 31, 2006.

PI-USDA, Monitoring Agricultural Sewage Sludge, \$1,194,995, June 15, 2005 to June 14, 2008.

PI-Heidelberg College (USDA), Watershed Modeling for Rock Creek, \$115,164, January 1, 2005 to December 31, 2007.

PI-Ohio Aerospace Institute for NASA Glenn Research Center, Assistance to OhioView with Remote Sensing Educational Outreach, \$10,920, January 1, 2005 to December 31, 2005.

PI-Great Lakes Commission, Agricultural Land Use Mapping with Multi-Temporal Imagery, \$41,126, September 1, 2004 to August 31, 2005.

PI-USDA, Monitoring Agricultural Sewage Sludge Application in NW Ohio, \$1,000,916, June 15, 2005 to June 14, 2007.

Co-I. (TMACOG), Geographic Information System (GIS) Septic System Inventory for Urban and Rural Counties, Lake Erie Protection Fund, \$50,000.

PI-Ohio Aerospace Institute for NASA Glenn Research Center, Dissemination of Remote Sensing Technology in Northwest Ohio through Educational and Community Outreach, \$43,887, June 1, 2003 to August 31, 2004.

PI-Great Lakes Environmental Research Lab (GLERL), Development and Validation of a Turbidity Product for Lake Erie: GLERL's CoastWatch Satellite Program, \$10,000, June 1, 2003-May 31, 2004.

Co-I. (Spongberg) Ohio Board of Regents Improving Teacher Quality Program, Earth System and Space Science Concepts Distance Learning Course for In-service, \$57,489, March 1, 2003-February 28, 2004.

PI-NSF's REU Program, Research Experience for Undergraduates: An Integrated Assessment of Physical, Ecological, and Socio-economic Aspects of a Watershed System, \$186,713, April 1, 2003 to March 31, 2006.

PI-NSF, Earth and Energy Systems: GLOBE Protocol Research and Outreach, NSF GLOBE Program, \$381,000, 9/15/02-3/14/06.

Co-I, (Lipscomb) HPNC: University of Toledo Internet 2 Connection, NSF, \$75,000.

PI - Army Corps. of Engineers, Auglaize River Sedimentation Project, \$77,000, September 4, 2002 to September 3, 2003.

PI - Institute for Global Environmental Strategies, ESSEA, Earth System Science Education Alliance, February 2, 2001 to February 1, 2004, \$44,992.

Co-I - USDA "Developing methodologies to assess natural resource and socioeconomic data for use in community planning decision making: A cooperative agreement between GEPL and the USDA." *U.S Department of Agriculture Natural Resource Conservation Service*, \$120,248. September 2001-September 2003

PI-NSF Major Research Instrumentation, Acquisition of Instrumentation in Support of the Center for Geographic Information Science and Applied Geographics (GISAG), September 1, 2001 to August 31, 2004, \$166,994.

PI-NSF's REU Program, Research Experience for Undergraduates: An Integrated Assessment of Physical, Ecological, and Socio-economic Aspects of a Watershed System, \$170,574, April 1, 2000 to March 31, 2003.

PI-NASA Glenn Research Center, Dissemination of Remote Sensing Technology in Northwest Ohio through Educational and Community Outreach, \$163,240, June 1, 2000 to May 31, 2002.

- Co-I-Lake Erie Protection Fund, “GIS Based Water Quality Modeling in the Sandusky Watershed”, subcontract to Heidelberg College, Water Quality Laboratory, \$33,000, October 1, 2000 to September 30, 2001.
- Co-I-USGS, Developing a Statewide Monitoring Program for Environmental Change Detection Using Landsat Data, OhioView Consortium, \$75,083, September 1, 1999 to August 31, 2001.
- PI -NASA, Terrestrial Environmental Variables Derived from EOS Platform Sensors, 2 ½ years, \$152,847, work to be conducted in conjunction with the University of Maryland and Oklahoma State University, February 1, 1999 to July 31, 2001.
- PI -NASA Use of Thermal Infrared Satellite Data in Climate Change Studies, NASA New Investigator Program, \$334,132, June 1, 1999 to May 31, 2002.

### **Journal Publications**

- Adaktilou, N., R. Landenberger, K.P. Czajkowski, P. Liu, M-L. Hedley, J. Struble. 2018. Using geospatial technology to enhance science teaching and learning: A case study for ‘SATELLITES’ geo-science program, *International Journal of Environmental and Science Education*, 13(7), 605-621.
- Schlemper, M. B., B. Athreya, K. Czajkowski, V. C. Stewart, and S. Shetty. 2018. Teaching spatial thinking and geospatial technologies through citizen mapping, problem-based inquiry in grades 7-12. *Journal of Geography*. DOI:10.1080/00221341.2018.1501083.
- Schlemper, M.B., V.C. Stewart, S. Shetty, and K. Czajkowski, 2018. Including student’s geographies in Geography education: spatial narratives, citizen mapping and social justice, *Theory & Research in Social Education*, 43(4) 603-641.
- Doraiswamy, N., Porter, K., Wilson, G., Paprzycki, P., Czerniak, C., Tuttle, N., Czajkowski, K. 2016. Development and validation of an instrument to assess teacher leadership behaviors in an NSF-funded MSP. *Journal of School Leadership*, 26, 726-755.
- Shao, C, J. Chen, C.A. Stepien, H. Chu, Z. Ouyang, T.B. Bridgeman, K.P. Czajkowski, R.H. Becker, & R. John. 2015. Diurnal to annual changes in latent, sensible heat, and CO<sub>2</sub> fluxes over a Laurentian Great Lake: A case study in western Lake Erie. *Journal of Geophysical Research – Biogeosciences*. 120(8):1587-1604. DOI:10.1002/2015JG003025 Selected as AGU Research Spotlight: <https://eos.org/research-spotlights/great-lakes-hold-sway-over-water-and-carbon-cycling>
- Chu, H., Gottgens, J. F., Chen, J., Sun, G., Desai, A. R., Ouyang, Z., and Czajkowski, K. 2015. Climatic variability, hydrologic anomaly, and methane emission can turn productive freshwater marshes into net carbon sources. *Global change biology*, 21(3), 1165-1181.
- Chu, H, J. Chen , J. Gottgens , Z. Ouyang , R. John , K. P. Czajkowski , R. Becker. 2014. Net ecosystem CH<sub>4</sub> and CO<sub>2</sub> exchanges in a Lake Erie coastal marsh and a nearby cropland, *Journal of Geophysical Research – Biogeosciences*, 119, 722-740.
- Riehl, P., Tuttle, N., Czerniak, C.M., Czajkowski, K. 2015. A Case Study in the Stewardship of Creation: Project-Based Learning and Catholic Social Teaching in a Climate Change Curriculum. *Journal of Sustainability Education*, 9. Retrieved from <http://www.jsedimensions.org/wordpress/>.
- Changliang Shao, Jiquan Chen, Carol A Stepien, Housen Chu, Zutao Ouyang, Thomas B Bridgeman, Kevin P Czajkowski, Richard H Becker, Ranjeet John. 2015. Diurnal to annual changes in latent, sensible heat, and CO<sub>2</sub> fluxes over a Laurentian Great Lake: A

- case study in Western Lake Erie, *J. Geophysical Research: Biogeosciences*, 120, 1587-1604.
- Housen Chu, Johan Gottgens, Jiquan Chen, Ge Sun, Ankur Desai, Zutao Ouyang, Changliang Shao, Kevin Czajkowski. 2015. Climatic variability, hydrologic anomaly, and methane emission can turn productive freshwater marshes into net carbon sources, *Global change biology*, 21 (3), 1165-1181
- Housen Chu, Jiquan Chen, Johan F Gottgens, Zutao Ouyang, Ranjeet John, Kevin Czajkowski, Richard Becker. 2014. Net ecosystem methane and carbon dioxide exchanges in a Lake Erie coastal marsh and a nearby cropland, *J. Geophysical Research: Biogeosciences*, 5, 722-740.
- Tuttle, N., Obringer, M., Czajkowski, K., Czerniak, C. M. 2014. What Is a Foot under Your Feet? *Science and Children*, 52(3), 49-53.
- Hedley, M-L., M.A. Templin, K. Czajkowski, and C. Czerniak, 2013, The Use of Geospatial Technologies Instruction Within a Student/Teacher/Scientist Partnership: Increasing Students' Geospatial Skills and Atmospheric Concept Knowledge, *J. Geoscience Education*, 61, 161-169.
- Esseili, M.A., I.I. Kassem, V. Sigler, K. Czajkowski, and A. Ames, 2012, Genetic evidence for the offsite transport of E. coli associated with land application of Class B biosolids on agricultural fields, *Science of the Total Environment*, 433, 273-280.
- Farhang Akbar-Khanzadeh, April Ames, Michael Bisesi, Sheryl Milz, Kevin Czajkowski & Ashok Kumar (2012): Particulate Matter (PM) Exposure Assessment—Horizontal and Vertical PM Profiles in Relation to Agricultural Activities and Environmental Factors in Farm Fields, *Journal of Occupational and Environmental Hygiene*, 9:8, 502-516.
- Hedley, M-L, K. Czajkowski, J. Struble, T. Benko, B. Shellito, S. Sheridan, M. Munro-Stasiuk, 2012, Celebrate with SATELLITES, reprinted in *Fuel for Thought: Building Energy Awareness in Grades 9-12*, NSTA Press, Ed. Steve Metz, Mar. 2012, 57-68.
- Bhat, A., Kumar, A., and Czajkowski, K., Development and evaluation of a dispersion model to predict downwind concentrations of particulate emissions from land application of Class B biosolids in unstable conditions, "Indoor and Outdoor Air Pollution", ISBN 978-953-307-981-3, InTech, Croatia, 2011.
- Maruthi Sridhar, B.B., R.K. Vincent, S.J. Roberts and K. Czajkowski. 2011. Remote sensing of soybean stress as an indicator of chemical concentration of biosolid amended surface soils. *International Journal of Applied Earth Observation and Geoinformation* 13: 676-681.
- Wu, Chenxi, Spongberg, Alison, Witter, Jason, Fang, Min, Czajkowski, Kevin, Ames, April 2010, Dissipation and leaching potential of selected pharmaceutically active compounds in soils amended with biosolids, *Arch. Environ. Contam. Toxicol.*, 59, 343-351.
- Wu, Chenxi, Spongberg, Alison, Witter, Jason, Fang, Min, Czajkowski, Kevin, 2010, Uptake of pharmaceutical and personal care products by soybean plants from soils applied with biosolids and irrigated with contaminated water, *Environmental Science and Technology*, 44, 6157-6161.
- Wu, C., A. Spongberg, J. Witter, M. Fang, A. Ames and K. Czajkowski, 2010. Detection of pharmaceuticals and personal care products in agricultural soils receiving biosolids application, *Clean-Soil, Air, Water*, 38(3), 230-237.
- Wu, C., J. Witter, A. Spongberg, K. Czajkowski, 2009, Occurrence of selected pharmaceuticals in an agricultural landscape, western Lake Erie basin, *Water Research*, 42, 3407-3416.

- Hedley, M-L, K. Czajkowski, J. Struble, T. Benko, B. Shellito, S. Sheridan, M. Munro-Stasiuk, 2009, Celebrate with SATELLITES, The Science Teacher (NSTA), Jan. 2009, 27-33.
- Lambert, J., M. Munro-Stasiuk, K. Czajkowski, T. Benko, B. Shellito, M-L. Hedley, S. Sheridan, C. Merry, and J. Struble, 2008, SATELLITES: Students and Teachers Exploring Local Landscapes to Interpret the Earth from Space, *Journal of Geoscience Education*, 56, 383-393.
- Hedley, M-L, K. Czajkowski, T. Benko, R. Landenberger, B. Shellito, M. Munro-Stasiuk, and J. Struble, 2008, SATELLITES: A Geospatial Technology Program for Teachers and Students, *The Earth Scientist*, 27, 11-13.
- Khuder, S., S. Milz, M. Bisesi, R. Vincent, W. McNulty, K. Czajkowski, 2007, Health Survey of Residents Living Near Biosolids Permitted Farm Fields, *Archives of Occupational and Environmental Health*, 62, 5-11.
- Witter, J.D., A.L. Spongberg and K.P. Czajkowski, 2007. Diurnal Soil Temperature Within the GLOBE Program Dataset. *Journal of Geography*, 106, 13-19.
- Ault, T., K. P. Czajkowski, T. Benko, J. Coss, J. Struble, A. Spongberg, M. Templin, and C. Gross, 2006, Validation of the MODIS Snow Product (MOD10) and Cloud Mask Using Student and NWS Cooperative Station Observations, *Remote Sensing of Environment*, 105, 341-353.
- Torbick, N. P. Lawrence, K.P. Czajkowski, 2006, Application and Assessment of an Expert System for Wetlands identification in Northwest Ohio, USA, *Journal of Environmental Monitoring and Restoration*, 2, 26-37.
- Dunham, S., M. Fonstad, S. Anderson, K. Czajkowski, 2005, Using Multi-temporal Satellite Imagery to Monitor the Response of Vegetation to Drought in the Great Lakes Region, *GIScience & Remote Sensing*, 42, 185-201.
- Torbick, N, P. Lawrence, and K. Czajkowski., 2004, The Maumee River Watershed in Northwestern Ohio Inventoried with GIS, *ArcNEWS*, 30-31.
- Vincent, R. K., X. Qin, R. M. McKay, J. Miner, K. Czajkowski, J. Savino, and T. Bridgeman, (2003). Phycocyanin Detection from Landsat TM data for mapping Cyanobacterial blooms in Lake Erie, *Remote Sensing of Environment*, 89, 381-392.
- Ouaidrari, H., S. N. Goward, K. P. Czajkowski, J. A. Sobrino, S. Liang, and E. Vermote, 2002, Land surface temperature estimation from AVHRR thermal infrared measurements: an assessment for the AVHRR land Pathfinder II data set. *Remote Sensing of Environment*, 81, 114-128 .
- Czajkowski, K. P., S. N. Goward, D. Shirey, and A. Walz, 2002, Thermal remote sensing of near surface water vapor, *Remote Sensing of Environment*, 79, 253-265.
- Czajkowski, K. P., Using Webcasts for Earth Sciences Classroom Instruction: Lessons Learned, *American Geophysical Union's EOS weekly newsletter*, 83, Oct. 15, 2002, p. 473.
- Goward, S. N., Y. Xue, and K. P. Czajkowski, 2002, Evaluating land surface moisture conditions from the remotely sensed temperature/vegetation index measurements: an exploration employing the Simplified Simple Biosphere Model, *Remote Sensing of Environment*, 79, 225-242.
- Lakshmi, V., K. P. Czajkowski, R. O. Dubayah, and J. Susskind, 2001, Surface air temperatures using AVHRR and TOVS: a comparison study, *International Journal of Remote Sensing*, 22, 643-662.
- Prince, S. D., S. N. Goward, S. Goetz and K. Czajkowski, 2000, Inter-annual atmosphere - biosphere variation: implications for observation and modeling, *Journal of Geophysical Research*, 105, 20 055-20 063.

- Czajkowski, K. P., S. N. Goward, S. Stadler, and A. Walz, 2000, Thermal remote sensing of near surface environmental variables: application over the Oklahoma Mesonet, *The Professional Geographer*, 52, 345-357.
- O'Donnell, G.M., K.P. Czajkowski, R.O. Dubayah, and D. Lettenmaier, 2000, Macroscale hydrological modeling using remotely sensed inputs: Application to the Ohio River basin, *Journal of Geophysical Research*, 105, 12 499-12 516.
- Prince, S. D., Goetz, S. J., Dubayah, R., Czajkowski, K., and Thawley, M., 1998, Inference of surface and air temperature, atmospheric precipitable water and vapor pressure deficit using AVHRR satellite observations: validation of algorithms. *Journal of Hydrology*, 213, 230-249.
- Kalluri, S. N. V., R. O. Dubayah, K. P. Czajkowski, and S. J. Goetz, 1998, Response to Prata "Land surface temperatures from AVHRR: a comment", *Journal of Geophysical Research*, 103, 6243-6244.
- Czajkowski, K. P., S. N. Goward, and H. Ourdrari, 1998, Impact of filter functions on split window estimation of land surface temperature, *International Journal of Remote Sensing*, 19, 2007-2012.
- Czajkowski, K. P., T. Mulhern, S. N. Goward, and J. Cihlar, 1997, Validation of the geocoding and compositing system (GEOCOMP) using contextual analysis for AVHRR images, *International Journal of Remote Sensing*, 18, 3055-3068.
- Czajkowski, K. P., Mulhern, T., Goward, S. N., Cihlar, J., Dubayah, R. O., and Prince, S. D., 1997, Biospheric environmental monitoring at BOREAS with AVHRR observations. *Journal of Geophysical Research*, 102, 29 651-29 663.

### **Book Chapters**

- Rahmen, M-I., K.P. Czajkowski, Y. Jiang, and K. Weaver, 2018. Validation of GLOBE Citizen Science Air Temperature Observations Using Data from the Great American Solar Eclipse, book on the *Great American Solar Eclipse*, Astronomical Society of the Pacific, p. 601.
- Stepien, Carol, Frank Calzonetti, Jonathan M. Bossenbroek, Kevin P. Czajkowski, Timothy L. Bollin, and Cyndee L. Gruden, 2017. Enhancing Environmental Sustainability through a University Field Station, Sustainability Practice and Education on University Campuses and Beyond, Chapter 7, *Sustainability Practice and Education*, 109-144.
- Czajkowski, K.P., T. Benko, T. Ault, 2013, Satellite Imagery Enables Urban Heat Island Determination, AGI Environmental Awareness Series, editors Rebecca Dodge and Russel Congalton, pp. 44-45.
- Czajkowski, K.P. and P.L. Lawrence, 2013, Chapter 8: GIS and Remote Sensing Applications for Watershed Planning in the Maumee River Basin, Ohio, in *Geospatial Tools and Urban Water Resources*, Ed. Patrick L. Lawrence, Springer, 131-144.
- Meals, D.W., P. Richards, R. Confesor, K. Czajkowski, J. Bonnell, D.L. Osmond, D.L.K. Hoag, J. Spooner, and M.L. McFarland, 2012. Chapter 18: Rock Creek Watershed, Ohio: National Institute of Food and Agriculture–Conservation Effects Assessment Project, *How to build better agricultural conservation programs to protect water quality: The National Institute of Food and Agriculture-Conservation Effects Assessment Project experience*. Soil and Water Conservation Society, Ankeny, IA (2012), 316-326.
- Bhat, A., A. Kumar and K. Czajkowski, 2011, Development and Evaluation of a Dispersion Model to Predict Downwind Concentrations of Particulate Emissions from Land



- Application of Class B Biosolids, Indoor and Outdoor Air Pollution, Ed. Jose Orosa, InTech.
- Czajkowski, K.P, A. Ames, B. Alam, S. Milz, R. Vincent, W. McNulty, T. W. Ault, M. Bisesi, B. Fink, S. Khuder, T. Benko, J. Coss, D. Czajkowski, S. Sritharan, K. Nedunuri, S. Nikolov, J. Witter, and A. Spongberg 2010, Application of GIS in Evaluating the Potential Impacts of Land Application of Biosolids on Human Health. *Geospatial Technologies and Environment: Applications, Policies and Management*, Ed. Nancy Pullen and Mark Patterson, Springer, Vol 3, 200 p.
- Torbick, N., Lawrence, P., Czajkowski, K. 2008. Application and assessment of a GIScience model for wetlands identification in northwest Ohio, USA. p.3-12. In Wei Ji (editor), *Wetland and water resource modeling and assessment: A watershed perspective*. CRC Press, New York, USA.
- Lawrence, P.L, Czajowski, K. and Torbick, N. (2004). Policy Implication of Remote Sensing in Understanding Urban Environments: Developing a Wetlands Inventory for Community Decision-Making in the Maumee Area of Concern, Ohio. In Jensen, R., Gatrell, J., and McLean, D. eds. *Place, Meaning and the Politics of Cities: Alternative Methodologies for Using Geo-Spatial Technologies to Understanding Urban Environments*. Springer Verlag Press, pp. 23-36.
- Czajkowski, K. P., S. N. Goward, T. Mulhern, S. J. Goetz, A. Walz, D. Shirey, S. Stadler, S. Prince, and R. O. Dubayah, 2004, Recovery of environmental variables from thermal remote sensing, in *Thermal Remote Sensing in Land Surface Processes*, Ed. J. Luvall and D. Quattrochi, CRC Press, 11-32.
- Dubayah, R. O., E. F. Wood, T. E. Engman, K. P. Czajkowski, and M. Zion, 2000, A remote sensing approach to macroscale hydrological modeling, *Remote Sensing in Hydrology and Water Management*, Ed. G. Schultz and E. Engman, Springer-Verlag, Berlin, 85-102.

### **Proceedings**

- Hall, D. K., P. M. Montesano, J. L. Foster, G. A. Riggs, R. E. J. Kelly and K. Czajkowski, Preliminary Evaluation of the AFWA-NASA Blended Snow-Cover Product Over the Lower Great Lakes region, *Proceedings from the 64<sup>th</sup> Eastern Snow Conference*, St. Johns, Newfoundland, 2007.
- Czajkowski, K. P., T. Benko and J. Struble, Global change and remote sensing summer teacher workshop and observation program, *Proceedings from the 11<sup>th</sup> Annual Education Symposium*, American Meteorological Society, Jan. 13-17, 2002, p. 87-89.

### **Recent Presentations/Professional Conferences (since 2012)**

- 2019 Czajkowski, K., G. Venicx, J. Struble, Engaging Citizen Scientists Through the GLOBE Urban Heat Island Effect Campaign, Citizen Science Association Meeting, Rayleigh, NC, March 14.
- 2019 Rai, S., K. Czajkowski, B. Athreya, K. Panozzo, Y. Jiang, A. DiBell, E. McGowan, T. Harrell, A. Krabill, and L. Alarab, Effectiveness in Implementation: Understanding Farmer Perceptions and Factors Impacting Adoption of Agricultural Management Practices, Understanding Harmful Algal Blooms: *State of the Science Conference*, Ohio Sea Grant, Sep

- 2019 Panozzo, K., S. Rai, K. Czajkowski, Y. Jiang, and B. Athreya, Mapping Agriculture; Developing a Geo-spatial Approach to Investigate Agricultural Practices, *Understanding Harmful Algal Blooms: State of the Science Conference*, Ohio Sea Grant, Sep
- 2019 Gonzalez, A., S. Rai, K. Czajkowski, B. Athreya, Effectiveness in Implementation: Mapping Agricultural Best Management Practices, Farmer Perceptions, and Outcomes, UT's National Science Foundation Research Experience for Undergraduates (NSF-REU) Fellow, Lake Erie Center, Oregon, July
- 2019 Athreya, B. S. Rai, K. Czajkowski, K. Panozzo, Y. Jiang, Effectiveness in Implementation – Mapping Agricultural Management Practices, Farmer Perceptions and Outcomes, *Impacting Our Region Through Community-Engaged Research, University of Toledo Research Symposium*, Toledo, April
- 2019 Rai, S., K. Czajkowski, K. Panozzo, Y. Jiang and B. Athreya, Effectiveness in Implementation – Mapping Agricultural Management Practices, Farmer Perceptions and Outcomes, *Ohio Sea Grant's 10<sup>th</sup> Annual Lake Erie Workshop for Science and Outdoor Writers, Stone Lab – Gibraltar Island*, Aug
- 2019 Czajkowski, K., S. Rai, B. Athreya, K. Panozzo, Y. Jiang, Effectiveness in Implementation – Mapping Agricultural Management Practices, Farmer Perceptions and Outcomes, *International Association for Great Lakes Research (IAGLR) – 62<sup>nd</sup> Annual Conference on Great Lakes Research*, New York, June
- 2019 Athreya, B., K. Czajkowski, S. Rai, K. Panozzo, Y. Jiang;, Studying the Spatial Distribution of Agricultural Best Management Practices through Geospatial Technology and Social Practice, Geographic Research on Harmful Algae Blooms (HABs), *American Association of Geographers*, Washington DC, April
- 2019 Adaktilou, N., K. O'Connor, K. P. Czajkowski, and K. Schneider. *Evidence of GLOBE's Impact in Different*. Presented at the Annual GLOBE Meeting in Detroit, MI, . July 2019
- 2019 Cartalis, C. K. P. Czajkowski, and K. Schneider. *Nature in Urban Landscapes: Understanding Science, Activating the Society, Enhancing Participation*. Presented at the Annual GLOBE Meeting in Detroit, MI, . July 2019
- 2019 Czajkowski, K. P. *Is Your Neighborhood Making You Hot?* Presented at the Michigan Science Center for the Annual GLOBE Meeting in Detroit, MI, . July 2019
- 2019 Czajkowski, K. P., A. Rizzi, J. Taylor, T. Ostrom, and J. Struble. *GLOBE Opportunity to Study the Urban Heat Island Effect*. Presented at the Annual GLOBE Meeting in Detroit, MI, . July 2019
- 2019 Czajkowski, K. P., D. Padgett, M. Jabot, and S. Herron. *Integrating GLOBE into Undergraduate Education*. Presented at the Annual GLOBE Meeting in Detroit, MI. July 2019
- 2019 Czajkowski, K. P. and S. Mierzwiak. GLOBE Mission EARTH. Poster presented at the Annual GLOBE Meeting in Detroit, MI. July 2019
- 2019 Taylor, J., A. Rizzi, K. P. Czajkowski, T. Ostrom, and J. Struble. *NASA Resources to Support GLOBE Student Learning: Clouds Example*. Presented at the Annual GLOBE Meeting in Detroit, MI. July 2019
- 2018 Czajkowski, K. and J. Struble, Engaging Citizen Scientists to Study the Urban Heat Island Effect Through the GLOBE Program, American Geophysical Union (AGU) Meeting, Washington, DC, Dec.

- 2018 Czajkowski, K., S. Darche, D. Padgett, J. Taylor, P. Garik, J. Struble, GLOBE Mission EARTH: Fusing GLOBE with NASA Assets to Build Systemic Innovation in STEM Education, American Geophysical Union (AGU) Meeting, Washington, DC, Dec.
- 2018 Snyder, M., C. Stepien, H. Scheppler, C. Black, K.P. Czajkowski, Assessing AIS from Bait & Pond Stores Using Environmental DNA, Targeted High-Throughput Sequencing, Morphology, and Angler and Supply Chain Surveys, American Fisheries Society, Annual Meeting, Atlantic City, NJ, August 23, 2018
- 2018 Schlemper, M.B., V. Stewart, S. Shetty, K.P. Czajkowski, Doing Geography: Expanding Students' Spatial Narratives through Inquiry and Citizen Mapping, American Association of Geographers Annual Meeting (AAG), New Orleans, LA, April 9-14, 2018.
- 2018 Rahman, M.I., K.P. Czajkowski, K.L. Weaver, M. Penn, Effect of Great American Solar Eclipse on Local Weather through Citizen Science Observations, American Association of Geographers Annual Meeting (AAG), New Orleans, LA, April 9-14, 2018.
- 2018 Czajkowski, K.P., C. Stepien, A. Solocha, M. Snyder, C. Black, E. Etey, J. Phillips, H. Scheppler, J. Mitchell, Geographic Investigation of Potential Invasive Species Introduction Through Bait Stores and Anglers, American Association of Geographers Annual Meeting (AAG), New Orleans, LA, April 9-14, 2018.
- 2018 Czajkowski, K.P., Md. I. Rahman, J. Struble, K. Weaver. Studying the Solar Eclipse with GLOBE (Citizen Science) Data, National Science Teachers Association (NSTA), Atlanta, GA, March 16-19, 2018.
- 2018 Czajkowski, K.P., Md. I. Rahman, J. Struble, Jump on Board to the GLOBE Urban Heat Island Campaign, National Science Teachers Association (NSTA), Atlanta, GA, March 16-19, 2018.
- 2018 Czajkowski, K., K. Panozzo, Y. Jiang, A. Ames, BMP Development for Swan Creek Watershed: Pilot, Lake Erie Center Public Lecture, January 18, 2018.
- 2018 Struble, J., K. Czajkowski, S. Mierzwiak, Nurturing Young Scientists, Science Education Council of Ohio (SECO), January 29, 2018.
- 2018 Struble, J., K. Czajkowski, S. Mierzwiak, Students Working as Scientists with GLOBE Mission EARTH: Using the GLOBE Observer App, Science Education Council of Ohio (SECO), January 30, 2018.
- 2017 Czajkowski, K.P. and M.I. Rahman, Effects of the Great American Solar Eclipse on Weather Through Citizen Science Observations, East Lakes Division of American Association of Geographers, Eastern Michigan University, Oct. 13, 2017.
- 2017 Panozzo, K., K. Czajkowski, N. Singhania, DT Mapper, I-Corps follow-up Meeting, Sept. 29, 2017.
- 2017 Czajkowski, K., J. Struble, M-L. Hedley, J. Taylor, S. Mierzwiak, P. Garik, S. Darche, D. Padgett, Mission Earth: Fusing GLOBE with NASA Assets to Build Systemic Innovation in STEM Education, NASA CAN meeting, Landsdowne, VA, NASA SciAct meeting, Nov. 13-17, 2017.
- 2017 Czajkowski, K., M. Templin, J. Struble, S. Mierzwiak, M-L Hedley, D. Padgett, Teacher Preparation with GLOBE and NASA Asset, American Geophysical Union (AGU) Meeting, New Orleans, LA, December 15, 2017.
- 2017 Fagerstrom, L., K. Czajkowski, S. Mierzwiak. The Capability of GLOBE Data to Correct for Atmospheric Differences in Land Surface Temperature, American Geophysical Union (AGU) Meeting, New Orleans, LA, December 15, 2017.

- 2017 Czajkowski, K.P. and M.I. Rahman, Effects of the Great American Solar Eclipse on Weather Through Citizen Science Observations, East Lakes Division of American Association of Geographers, Eastern Michigan University, Oct. 13, 2017.
- 2017 Czajkowski, K.P., Stepien, C., Mitchell, J., Solocha, A., Phillips, J., Scheppler, H., Geographic Investigation of Potential Invasive Species Introduction Through Bait Stores and Anglers, International Association of Great Lakes Research (IAGLR), Detroit, MI, May 16, 2017.
- 2017 Czajkowski, K.P., D. Padgett, P. Garik, S. Darche, J. Struble, The New GLOBE Program: Engaging students through Hands-on Science Projects, American Association of Geographers (AAG), Boston, MA, April 7, 2017.
- 2017, Czajkowski, K.P., C. Stepien, R. Lohner and J. Refsnider-Streby, Undergraduate Research Mentoring: Lake Erie Sensor Network to Study Land-Lake Ecological Linkages, NSF Biology Research Experience for Undergraduates (REU) meeting, Washington, DC, March 30, 2017.
- 2017 Czajkowski, K.P., J. Gotgens, Study of the near-shore environment on the south shore of Lake Erie, Lake Erie Millenium Network Meeting, Windsor, Ontario, Canada, Feb. 23, 2017.
- 2017 Czajkowski, K.P., Mission Earth: Fusing GLOBE with NASA Assets to Build Systemic Innovation in STEM Education, GLOBE North American Regional Meeting, Fayetteville, AR, Jan. 11, 2017.
- 2016 Czajkowski, K., S. Mierzwiak, D. Padgett, P. Garik, S. Darche, J. Struble Mission Earth: Fusing GLOBE with NASA Assets to Build Systemic Innovation in STEM Education, American Geophysical Union (AGU), San Francisco, CA, Dec. 12, 2016.
- 2016 Czajkowski, K.P., Mission Earth: Fusing GLOBE with NASA Assets to Build Systemic Innovation in STEM Education, GLOBE North American Regional Meeting, Nashville, TN, Mar. 28, 2016.
- 2016 Czajkowski, K.P., A. Johansen, E. Reynolds, A. Ames, A. Jurski, X. Li, K. Gallagher, and E. Kofi-Opata, K. Panozzo, R. Difalco, Toledo's Water Crisis, 2016, Toledo's Water Crisis, 2014, Use of Remote Sensing to Address Harmful Algal Blooms, Northern Illinois University Symposium, Feb. 19, 2016.
- 2016 Czajkowski, K.P., A. Johansen, E. Reynolds, A. Ames, A. Jurski, X. Li, K. Gallagher, and E. Kofi-Opata, K. Panozzo, R. Difalco, Mapping drain tile to assess agricultural contribution to harmful algal blooms in western Lake Erie basin, University of Toledo Lake Erie Center, Feb. 18, 2016.
- 2016 Czajkowski, K.P., Mission Earth: Fusing GLOBE with NASA Assets to Build Systemic Innovation in STEM Education, NASA CAN meeting, Dallas, TX, Jan. 19-21, 2016.
- 2015 Czajkowski, K.P., S. Mierzwiak, J. Struble, M-L. Hedley, GLOBE Learning Training Slides, GLOBE meeting, Los Angeles, CA, July 18-24, 2015.
- 2015 Czajkowski, K.P. and M-L. Hedley, Engaging Geographers and Linking Geography in GLOBE Student Projects, Association of American Geographers (AAG) Meeting, Chicago, IL, April 21-26, 2015.
- 2015 Czajkowski, K.P., A. Johansen, E. Reynolds, A. Ames, A. Jurski, X. Li, K. Gallagher, and E. Kofi-Opata, Mapping drain tile to assess agricultural contribution to nonpoint source pollution in the Western Lake Erie basin, International Association for Great Lakes Research (IAGLR), Burlington, VT, May 26-28, 2015.

- 2014 Czajkowski, K.P. and M-L. Hedley, GLOBE SATELLITES Accomplishments, American Geophysical Union (AGU), San Francisco, CA, December 11, 2014.
- 2014 Czajkowski, K.P., A. Johansen, X. Li, A. Jurski, A. Gross, Tree canopy identification in Bowling Green using object-oriented classification and lidar, Ohio GIS Conference, Columbus, Ohio, September 24, 2014.
- 2014 Changliang Shao, Jiquan Chen, Carol A. Stepien, , Thomas B. Bridgeman, Kevin Czajkowski, Richard Becker , 2014. A New Land-Lake Sensor Network for Measuring Greenhouse Gases in Lake Erie, Advancing the science of gas exchange between fresh waters and the atmosphere, Hyytiälä Forestry Field Station, Finland, Sept. 16-19, 2014.
- 2014 Czajkowski, K.P. and J. Struble, An Intervention Model for Including Scientists in Teacher Professional Development, Association of American Geographers (AAG) Meeting, Tampa, FL, April 8-13, 2014.
- 2014 Stepien, C., J. Chen, C. Shao, K.P. Czajkowski, T.B. Bridgeman, R.H. Becker, A New Land-Lake Sensor Network For Measuring Greenhouse Gas, Water, And Energy Exchanges: Use In Education And Outreach, Joint Aquatic Sciences Meeting, 2014
- 2013 Czajkowski, K.P. and M-L. Hedley, GLOBE SATELLITES Accomplishments, American Geophysical Union (AGU), San Francisco, CA, December 11, 2013.
- 2013 Czajkowski, K., D. Nemeth, P. Lawrence, T. Megeath, S. Khare, D. Apul, K. Egan, R. Becker, M-L Hedley, G. Mentzer, T. Ranou, B. Vaughn, Climate Change Education: Engaging Teachers and Students Correcting Misconceptions Using NASA Data, NASA Global Climate Change meeting, Arlington, VA, October 8, 2013.
- 2013 Landenberger, R.E., N. Adaktilou, K.P. Czajkowski, M.L. Hedley, 2013. Using geospatial technology to enhance science teaching and learning: A case study of the ‘SATELLITES’ program. Remote Sensing and Photogrammetry Society (RSPSoc) Annual Meeting, University of Glasgow, September 4-6, 2013.
- 2013 Czajkowski, K. and E. Brown de Colstoun, Investigating the Impact of Urban Development through GLOBE, GLOBE Annual Meeting, College Park, MD, Aug. 12-15, 2013.
- 2013 Czajkowski, K., C. Czerniak, J. Struble and K. Porter, Leadership for Educators: Academy for Driving Economic Revitalization in Science, NSF Math and Science Partnership Annual Meeting, Washington, DC, February 11 and 12, 2013.
- 2013 Czajkowski, K., S. Struble, and M. Templin, An Intervention Model for Including Scientists in Teacher Professional Development, First International Teacher-scientist Partnership Meeting, Boston Massachusetts, February 13 and 14, 2013.
- 2013 Lawrence, P.L, Mierzwiak, S., Czajkowski, K., and Nemeth, D.J. “ Mom what if all the water went away? Using A Counter Factual Story For A High School Learning Module On Climate Change - Draining The Great Lakes”, Association of American Geographers Annual Meeting, Los Angeles, CA, April 9-13, 2013.
- 2013 Czajkowski, K.P., The GLOBE Student Science Symposium: How It Went, GLOBE Partner Meeting, National Science Teachers Association (NSTA), San Antonio, TX, April 10, 2013.
- 2013 Lawrence, P.L, Mierzwiak, S., Czajkowski, K., and Nemeth, D.J. A Climate Change Learning Module for High School Educators Examining the Misconception of Weather versus Climate using the example of Great Lakes Water Levels, American Meteorological Society (AMS) Annual Meeting, Austin, TX, January 6-10, 2013

- 2012 Czajkowski, K., M-L. Hedley, and T. Ensign, 2012. Detection of Urban Heat Island Using Student Observations and My World GIS, International Geographical Union, Cologne, Germany, Aug. 26-30, 2012.
- 2012 Czajkowski, K. and M-L. Hedley, Drained Wetlands: Disappearance of a Treasure? Earth System Science Education Alliance (ESSEA) Annual Conference, Monterey, California, July 30-Aug. 3, 2012.
- 2012 Czajkowski, K., C. Atkisson, and S. Frantz, Can Teachers Have Students Do Inquiry-based Research Projects? Yes and with Great Success, GLOBE Partner Meeting, Minneapolis, Minnesota, July 15-20, 2012.
- 2012 Czajkowski, K., D. Nemeth, P. Lawrence, K. Bjorkman, T. Megeath, S. Khare, D. Apul, K. Egan, R. Becker, M-L Hedley, G. Mentzer, T. Ranou, B. Vaughn, Climate Change Education: Engaging Teachers and Students Correcting Misconceptions Using NASA Data, NASA Global Climate Change meeting, Washington, DC, April 18, 2012.
- 2012 Czajkowski, K., M-L. Hedley, P. Lawrence, and J. Struble, Scientists and Science Educators: A Working Partnership in Developing PBS Courses for Teachers, National Science Teacher Association (NSTA) Annual Meeting, Indianapolis, Indiana, 3-28, 2012 to 4-1-2012.
- 2012 Tspranis, M., P. Lawrence and K. Czajkowski, Teaching Climate Change through Project-based Science, National Science Teacher Association (NSTA) Annual Meeting, Indianapolis, Indiana, 3-28, 2012 to 4-1-2012.
- 2012 Lawrence, P. and K Czajkowski, Developing Climate Change Education Modules for High School Educators, American Meteorological Society (AMS) Annual Meeting, New Orleans, LA. Jan. 22-26, 2012.
- 2012 Czajkowski, K. and C. Czerniak, Leadership for Educators: Academy for Driving Economic Revitalization in Science, NSF Math and Science Partnership Annual Meeting, Washington, DC, January 21, 2012.

**Thesis/Dissertation Chair/Reader (7 PhD, 57 Masters)**

- M.S. – Dustin Dehm, A Small Unmanned Aerial System (sUAS) Based Method for Monitoring Wetland Inundation & Vegetation Climate Impacts on Nutrient Loading in Lake Erie, EEES, University of Toledo, 2018, Member.
- M.S. – Tiffany Gantner, Climate Impacts on Nutrient Loading in Lake Erie, EEES, University of Toledo, 2018, Member.
- Ph.D. – Xi Li, Use of LiDAR in Object-based Classification to Characterize Brownfields for Green Space Conversion in Toledo, SISS, University of Toledo, 2017, Chair.
- M.A. – Tajminur Rahman, Evapotranspiration Estimation of Toledo City from MOD16 MODIS Data Product and Compared with Flux Tower Observations, GEPL, University of Toledo, 2016, Chair.
- M.A. – Kimberly Panozzo, A Validation of NASS Crop Data Layer in the Maumee River Watershed, GEPL, University of Toledo, 2016, Chair.
- M.S. – Michael Cline, Analysis of Coincident HICO and Airborne Hyperspectral Images Over Lake Erie Western Basin HABs, Department of Environmental Studies, 2016, reader.
- M.A. – Richard “Alex” Johansen, An Automated Approach of Tile Drain Detection and Extraction Utilizing High Resolution Aerial Imagery and Object-Based Image Analysis, GEPL, University of Toledo, 2015, Chair.

- M.A. – Nancy Cochran, Detection of Urban Heat Islands in the Great Lakes Region with GLOBE Student Surface Temperature Measurements, GEPL, University of Toledo, 2014, Chair.
- M.A. – Elaine Reynolds, An Automated Method of Identifying the Location of Agricultural Field Drainage Tiles in Northwest Ohio, GEPL, University of Toledo, 2014, Chair.
- Ph.D. – April Ames, Application of Geographic Information Systems to investigate the association of health symptoms near biosolid applied fields, SISS, University of Toledo, 2014, Chair.
- M.A.E.-Tysen Belcher, Why Should We Detect Earth’s Movement Under Our School Implementing PBS in Middle School Science , Masters of Arts and Education, Geography focus, University of Toledo, 2014, Co-Chair.
- M.A.E.-Jacob Anastasoff, Can one person help alter the negative environmental impacts of our planet?, Masters of Arts and Education, Geography focus, University of Toledo, 2014, Co-Chair.
- M.A. – Evgeny Panchenko, Sustainable Planning of Linear Infrastructure Corridors in Remote Areas, GEPL, University of Toledo, 2014, reader.
- M.A. – Farzana Danish, Application of GIS in Visualization and Assessment of Ambient Air Quality for SO<sub>2</sub> in Lima Ohio, GEPL, University of Toledo, 2012, reader.
- M.A.E.-Mary Obringer, What is a Foot Under Your Feet: Introduction of Project Based Learning into a Fifth Grade Science Classroom, Masters of Arts and Education, Geography focus, University of Toledo, 2012, Co-Chair.
- M.A.E.-Peggy Reihl, Stewardship of Creation: How service learning engages students while learning science content, Masters of Arts and Education, Geography focus, University of Toledo, 2012, Co-Chair.
- M.A.E.-Brooke Bradley, How do I know what to wear tomorrow?, Masters of Arts and Education, University of Toledo, Geography focus, 2012, Co-Chair.
- M.A.E.-Timothy Mahoney, Development of an Effective Professional Development Program to Promote the Use of Project Based Learning in the Diocese of Toledo, Masters of Arts and Education, University of Toledo, Geography focus, 2012, Co-Chair.
- M.A.E.-Susan Grod, The Importance of Project Based Science in the Classroom and the Implications of a Classroom and Community Garden, Masters of Arts and Education, Geography focus, University of Toledo, 2012, Co-Chair.
- M.A. – Jie Ren, Mapping Cyanobacterial Blooms in the Western Basin of Lake Erie using MERIS, GEPL, University of Toledo, 2012, chair.
- M.A. – Christina (Stevens) McCollough, Building a Replicable Flood Forecast Mitigation Support System to Simplify Emergency Decision-Making, GEPL, University of Toledo, 2010, reader.
- M.A. – Yitong Jiang, Identification of Sewage Sludge Injection Application on Harvested Agricultural Fields Using Landsat TM Data, GEPL, University of Toledo, 2010, chair.
- M.A. – James Thompson, Identifying Subsurface Tile Drainage Systems Utilizing Remote Sensing Techniques, GEPL, University of Toledo, 2010, chair.
- M.A. - Michael Stoll, Sludge, politics, media and America: the perspective of waste, GEPL, University of Toledo, 2010, chair.
- M.S. – David Dean, An Application of Geospatial Technology to Geographic Response Plans for Oil Spill Response Planning in the Western Basin of Lake Erie, , GEPL, University of Toledo, 2010, reader.

- Ph.D. – Nan Lu, Regional Climate Change and Vegetation–Water Relations in Inner Mongolia Lessons Learned within the NASA Project “*Effects of Land Use Change on the Energy and Water Balance of the Semi-Arid Region of Inner Mongolia, China*”, Dept. Environmental Science, University of Toledo, 2009, reader.
- M.A. – Jessica Randall, Use of Landsat for tillage practice determination, GEPL, University of Toledo, 2009, reader.
- M.A. – Jennifer Rader, An Evaluation of the Change in Metal Concentrations at an Agricultural Field Land Applied With Class B Sewage Sludge in Northwest Ohio, GEPL, University of Toledo, 2009, chair.
- Ph. D. – Mikell Lynne Hedley, Geospatial Technologies, Spatial Abilities and Science Content: A Positive Connection?, Education, University of Toledo, 2008, reader.
- M.S. – Abhishek Bhat, Civil Engineering, University of Toledo, 2008, reader
- Ph. D. - David Horne, A Method to Obtain Thermal Spectra of Martian Dust Storms over Cold Polar Surfaces, EEES, University of Toledo, 2007, reader.
- Ph. D. – Michael Benedict, Riparian Forests in NW Ohio Watersheds: Relations among Landscape Structure, Land Use/Land Cover, and Water Quality in Streams, EEES, University of Toledo, 2007, reader.
- MA – Rumiko Hayase - The Impact of Tillage Practices on Land Surface Temperatures of Croplands in Northeast Indiana, Southeast Michigan, and Northwest Ohio, GEPL, University of Toledo, 2007, chair
- MA – Xiaochun Wu, Investigation of the relationship between sewage sludge application and *E. coli* along Lake Erie, GEPL, University of Toledo, 2007, chair
- MA – Kathryn Swartz, The Application of GIS in Watershed Planning: The Case of the Western Lake Erie Basin, GEPL, University of Toledo, 2007, reader.
- MA – Elizabeth Mather, MA, Fuzzy vs. Crisp, Land Cover Classification of Satellite Imagery for the Identification of Savanna Plant Communities of the Oak Openings Region of NW Ohio and SE Michigan, GEPL, University of Toledo, 2006, chair
- MS - Harrison Murbi, MS, Use of Geospatial Technology to Map Great Lakes Invasive Species, EEES, University of Toledo, 2006, reader
- MA – Jeff Jowett, MA, Identification of Conservation Tillage Practices in Rock Creek Watershed Seneca County Ohio Utilizing Landsat 5 Thematic Mapper Imagery, GEPL, University of Toledo, 2006, chair
- Ph. D. - Quinglin Li, Ph.D., Carbon Storage And Fluxes In A Managed Oak Forest Landscape EEES, University of Toledo, 2006, reader
- MA – Kari Gerwin, Relating watershed land use/land cover to water quality in the Lake Erie Direct Tributaries, Northwest Ohio, GEPL, University of Toledo, 2006, reader
- MS - Jona Scarbro, Tracking of e coli from Sludge Application to Ditch in Oregon Ohio, EEES, University of Toledo, 2006, reader
- MA – Philip Haney, Water Quality Testing Site Location: A Methodology for Site Selection, GEPL, University of Toledo, 2006, reader
- MA - Stanislov Nikolov, Analysis of terrain and ground coverage features at snow avalanche initiation sites in southwestern Colorado, GEPL, University of Toledo, 2006, chair
- MA – Mark Fedders, The University of Toledo, Comparison of DEMs generated from ASTER satellite imagery and Digital Line Graphs for flat terrain, July 2005.-chair



- MA – Ling Yao, The University of Toledo, Evaluating the effect of Minimum Noise Fraction transformation (MNF) in crop classification using multi-temporal Landsat Images, July 2005.-chair.
- MA - Eric Michel, The University of Toledo, Modeling Species Distributions – An Object Domain Approach, February 2004 – reader.
- MA - Gavin Smith, The University of Toledo, Landscape Suitability Analysis: A Geographic Information Systems Approach to Community Planning in Fulton County, Ohio, May 3, 2004.-reader.
- MA – Nathan Torbick, The University of Toledo, Wetlands Classification and Inventory for the Lower Maumee River Watershed, Lucas County, Ohio, May 5, 2004. – reader.
- MA – Srikanth Palem Venkata, The University of Toledo, Spatial Decision Support System for MultiModal Freight Transport, August 4, 2004. – reader.
- MA - Jyoteshwar R Nagol, Understanding the Temperature-vegetation Index from Remotely Sensed AVHRR Data Using the Oklahoma Mesonet, 2004 - chair.
- MA – Susan Dunham, Southwest Texas State University, Using multi-temporal satellite imagery to monitor the response of vegetation to drought in the Great Lakes Region, 2003. - reader
- MA – Stephen Mather, The University of Toledo, Techniques for Enhancement of Satellite Borne Thermal Infrared Measurements, May 2003. – chair
- MA – Li Li, The University of Toledo, Snow cover variability using NSIDC Ease-grid, MODIS data, summer 2003. - chair
- MA – Michael Palmer, The University of Toledo, Land Use / Land Cover Classification and Wetland Detection of Upper Auglaize Watershed for Input to SWAT Model, June 2003. - chair
- MA – Russell Anderson, The University of Toledo, The Relationship between Urban Sprawl and the Urban Heat Island Effect in Toledo, Ohio for the Years 1984 and 1999: A Remote Sensing Perspective, May 2003. – chair.
- MA – Elaine Moebius, The University of Toledo, The Study of the Scioto Marsh Using Satellite Remote Sensing, April 2002. - chair.
- MS – Michael Benedict, The University of Toledo, spatial patterns of riparian corridors within the Maumee River, 2002. - reader
- MA - Timothy Ault, The University of Toledo, Creating an Automated Method for Aerial Photo Detection of Purple Loosestrife in NW Ohio, 2002. - chair
- MA – Zhongze “Wykota” Wang, Urban Sprawl in Toledo: A Case Study Using Satellite Imagery, March 21, 2001. – chair.
- MA – David Gedeon, , Swan Creek Watershed Plan of Action, April 16, 2001. – reader.
- MA - James Coss, The University of Toledo, Identification of Impervious Surfaces with Landsat Thematic Mapper Imagery, Nov. 17, 2000. – reader
- MA – Ashoo Anand, The University of Toledo, Development of A Land Management Plan for A Watershed: Study Area: Maumee River Area of Concern (AOC), 2000. - chair
- MA - Nancy Casey-McCabe, MA-Geography, University of Maryland, Using Satellite Remote Sensing to Estimate Net Radiation for a Boreal Forest in the Canadian Subarctic, March 10, 1999. – reader.

### **Professional Associations**

1989 to present American Geophysical Union (AGU)  
1996 to present Association of American Geographers (AAG)  
2003 to present International Association of Great Lakes Research (IAGLR)

### **Service**

1999-present Reviewer for Earth System Science Education Program Products for NASA's Education Program, reviews conducted twice a year.  
1999-present Reviewer of NASA proposals.  
2002-present Reviewer of NSF proposals.  
2000-present Reviewer of journal submissions to Remote Sensing of Environment, IEEE, and Atmosphere-Ocean and Photogrametric Engineering and Remote Sensing (PERS)  
1997-2010 Member of the Remote Sensing, Hydrology Committee of the American Geophysical Union, chaired many special sessions at annual meetings and judged student paper competitions.  
2000-present Chaired special sessions at the Association of American Geographers annual meeting.  
2006 Helped organize the East Lakes Division of the Association of American Geographers meeting held in Toledo, Ohio.  
1998 -present serving on OhioView's Steering Committee, Chair OhioView Education Committee.  
1998 -present serving on OhioView's Steering Committee.  
2007-2010 Director of OhioView  
1998-present Chaired or served on 17 new hire search committees, University of Toledo, faculty in GEPL and EEES and the Director of the Lake Erie Center as well as staff in GEPL, Dean of the College of Arts and Letters.  
2000-present Member of Personnel Committee, Department Geography and Planning, University of Toledo, chair 2010-present  
2005-present Member of the University of Toledo's Lake Erie Center's advisory committee.  
2001-2003 Member of Project Administration Management Systems Committee (PAMS).  
2000-2002 Member of OBOR Instructional Equipment Committee.  
1999 – present Developed and Director of SATELLITES (Students and Teachers Exploring Local Landscapes to Interpret the Earth from Space), trained over 250 teachers, from Ohio, Michigan, Pennsylvania, Iowa, and West Virginia.  
2002-present GLOBE Program Scientist. K-12 outreach program in 114 countries with over 50,000 teacher participants.  
2001-present Director of the University of Toledo's GLOBE Partnership.  
2006-2010 Member of the Research Mentoring Collaborative between UT and BGSU  
2014-present Member of University of Toledo Water Taskforce

### **Personal**

I enjoy playing ice hockey and volleyball.