



Jay P. Zarnetske, Ph.D.

Department of Earth and Environmental Sciences
Michigan State University
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RESEARCH TOPICS

Hydrologic processes of the Earth's Critical Zone: Hydrogeology; Groundwater – surface water interactions; Catchment nutrient and carbon fluxes; Climate change impacts on Arctic hydrology and biogeochemistry; Water quality and resources; Hydroecology – coupling of hydrology, biogeochemistry, and aquatic ecosystems

EDUCATION

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|--|----------------------------|
| Ph.D. Water Resources Science (Ecosystem Informatics minor)
<i>Oregon State University (Corvallis, OR)</i> | 2011 |
| M.S. Watershed Science
<i>Utah State University (Logan, UT)</i> | 2006 |
| B.A. Geology
<i>Colby College (Waterville, ME)</i>
<i>School for Field Studies, Centre for Rainforest Studies (Australia)</i> | 2000
1999 |

WORK AND RESEARCH EXPERIENCE

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|--|--------------------------|
| Assistant Professor – Department of Earth and Environmental Sciences
<i>Michigan State University (East Lansing, MI)</i> | 2013-
Present |
| Donnelley Postdoctoral Fellow – School of Forestry & Environmental Studies
<i>Yale University (New Haven, CT)</i> | 2011-2013 |
| Graduate Fellow – NSF IGERT: Ecosystem Informatics
Graduate Research Assistant – College of Earth, Ocean, and Atmospheric
Sciences & Water Resources Graduate Program
<i>Oregon State University (Corvallis, OR)</i> | 2006-2011 |
| Visiting Scientist – Catchment Processes Group (6-month term)
<i>National Institute for Water & Atmospheric Research (New Zealand)</i> | 2010 |
| Graduate Research Assistant – College of Natural Resources
<i>Utah State University (Logan, UT)</i> | 2003-2006 |
| Hydrogeologist
<i>CDM Smith (Headquarters: Cambridge, MA)</i> | 2000-2003 |
| Visiting Scholar – Dept. of Civil & Environmental Engineering (6 month term)
<i>New Jersey Institute of Technology (Newark, NJ)</i> | 2000 |

SCHOLARLY PEER-REVIEWED PUBLICATIONS

SUMMARY (August 2019): 40 published; 7 in review/revision; 1302 citations; h-index = 17

°°Zarnetske lab student/post doc author, **award, 2nd or 3rd author position typically means project PI

40. Ward, AS, **JP Zarnetske**, et al. (*in press*) Co-located contemporaneous mapping of morphological, hydrological, chemical, and biological conditions in a 5th order mountain stream network, Oregon, USA. *Earth System Science Data*.
39. °°Shogren, A, **JP Zarnetske**, °°BW Abbott, F Iannucci, R Frei, NA Griffin, and WB Bowden (2019) Revealing biogeochemical signatures of Arctic landscapes with river chemistry. *Scientific Reports*, 9(1): 12894, DOI: 10.1038/s41598-019-49296-6.
38. °°Abbott, BA, K Bishop, **JP Zarnetske**, DM Hannah, RJ Frei, C Minaudo, FS Chapin III, S Krause, L Conner, D Ellison, SE Godsey, S Plont, J Marçais, T Kolbe, A Huebner, T Hampton, S Gu, M Buhman, SS Sayedi, O Ursache, M Chapin, KD Henderson, G Pinay (2019) A water cycle for the Anthropocene. *Hydrological Processes* DOI: 10.1002/hyp.13544
37. °°Abbott, BA, K Bishop, **JP Zarnetske**, C Minaudo, FS Chapin III, S Krause, DM Hannah, L Conner, D Ellison, SE Godsey, °°S Plont, J Marçais, T Kolbe, A Huebner, R Frei, °°TB Hampton, S Gu, M Buhman, O Ursache, M Chapin, KD Henderson, G Pinay (2019) Human domination of the global water cycle excluded from depictions and perceptions. *Nature Geoscience*
- *Extensive press coverage in news outlets, including an interview on the nationally syndicated Michigan Public Radio show “Stateside.” Cover image and article for journal.**
36. MahmoodPoor Dehkordy, F, MA Briggs, FD Day-Lewis, K Singha, °°TB Hampton, **JP Zarnetske**, C Scruggs, AC Bagtzoglou (2019). Analysis of multi-scale preferential flow processes in an urban streambed, *Journal of Hydrology*.
<https://doi.org/10.1016/j.jhydrol.2019.03.022>
35. Kelleher, C, AS Ward, JLA Knapp, PJ Blaen, MJ Kurz, JD Drummond, **JP Zarnetske**, DM Hannah, C Mendoza-Lera, NM Schmadel, T Detry, J Lewandowski, AM Milner, S Krause (2019) Exploring Tracer Information and Model Framework Trade-offs to Improve Understanding of Stream Transient Storage Processes. *Water Resources Research*
34. °°Hampton, TB, **JP Zarnetske**, MA Briggs, K Singha, JW Harvey, FD Day-Lewis, F MahmoodPoor Dehkordy, and JW Lane (2019) Residence time controls the fate of nitrogen in flow-through lakebed sediments. *JGR-Biogeosciences*, 124.
<https://doi.org/10.1029/2018JG004741>
33. ****Zarnetske, JP**, M Bouda, °°BW Abbott, J Saiers, and PA Raymond (2018) Generality of hydrologic transport limitation of watershed organic carbon flux across ecoregions of the United States. *Geophysical Research Letters*, 45. <https://doi.org/10.1029/2018GL080005>
- *AGU featured article and University feature in MSU Today**
32. °°Lee-Cullin, JA, **JP Zarnetske**, °°SS Ruhala, and °°S Plont (2018) Toward measuring biogeochemistry within the stream-groundwater interface at the network scale: an initial assessment of two spatial sampling strategies. *Limnology and Oceanography: Methods*, 16: 722-733. doi:10.1002/lom3.10277

31. Briggs, MA, FD Day-Lewis, F MahmoodPoor Dehkordy, °°TB Hampton, **JP Zarnetske**, CR Scruggs, K Singha, JW Harvey, J Lane. (2018) Direct observations of hydrologic exchange occurring with less-mobile porosity in sandy lakebed sediments. *Water Resources Research*. doi:10.1029/2018WR022823.
30. Blaen, PJ, MJ Kurz, JD Drummond, J Knapp, C Mendoza-Lera, NM Schmadel, MJ Klaar, A Jäger, S Folegot, °°J Lee-Cullin, AS Ward, **JP Zarnetske**, T Datry, AM Milner, J Lewandowski, and S Krause (2018) Linking function with form: hydrologic and geomorphic influences on reach-scale metabolism in a lowland forested stream. *Ecohydrology*. 2018;e1952. <https://doi.org/10.1002/eco.1952>.
29. **°°Abbott BW, G Gruau, **JP Zarnetske**, F Moatar, L Barbe, Z Thomas, O Fovet, T Kolbe, S Gu, AC Pierson-Wickmann, P Davy, G Pinay. (2018) Unexpected structure and synchrony of water quality in headwater stream networks. *Ecology Letters*. doi: 10.1111/ele.12897
- *Extensive press coverage in news outlets, including an interview on the nationally syndicated Michigan Radio “Then Environment Report.” Cover image and article for Ecology Letters. Web of Science Highly Cited Paper (paper received enough citations to place it in the top 1% of Environmental/Ecology fields based on a highly cited threshold for the field and publication year)***
28. °°Ruhala SS, **JP Zarnetske**, DT Long, °°JA Lee-Cullin, °°S Plont, and °°ER Wiewiora. (2017) Exploring dissolved organic carbon cycling at the stream-groundwater interface across a third-order, lowland stream network. *Biogeochemistry*, doi.org/10.1007/s10533-017-0404-z.
27. **Pavelsky, TM, and **JP Zarnetske** (2017) Declining aufeis in Arctic Alaska reflects a changing hydrologic cycle. *Geophys. Res. Lett.*, 44, doi:10.1002/2016GL072397.
- *Extensive press coverage in news outlets, including PBS NEWSHOUR, Scientific American, and Nature Climate Change. Selected as an American Geophysical Union featured article for 2017. Cover image and article for Geophysical Research Letters.***
26. °°Kurz MJ, JD Drummond, E Martí, **JP Zarnetske**, °°JA Lee-Cullin, MJ Klaar, S Folegot, T Keller, AS Ward, JH Fleckenstein, T Datry, DM Hannah, and S Krause (2017) Impacts of water level on metabolism and transient storage in vegetated lowland rivers - insights from a mesocosm study. *J. Geophys. Res.* 10.1002/2016JG003695.
25. °°Baranov, V, D Milosevic, MJ Kurz, **JP Zarnetske**, F Sabater, E Martí, A Robertson, °°T Brandt, A Sorolla, J Lewandowski, and S Krause (2017) Helophyte impacts on the response of hyporheic invertebrate communities to inundation events in intermittent streams. *Ecohydrology*. 10.1002/eco.1857.
24. Folegot, S, °°JA Lee-Cullin, J Drummond, DM Hannah, T Keller, M Klaar, MJ Kurz, E Martí, **JP Zarnetske**, and S Krause. (2017) Low flow controls on stream thermal dynamics, *Limnologica*. <https://doi.org/10.1016/j.limno.2017.08.003>.
23. °°Ruhala, S, and **JP Zarnetske**. (2016) Using in-situ optical sensors to study dissolved organic carbon dynamics of streams and watersheds: A review. *Science of the Total Environment*. <http://dx.doi.org/10.1016/j.scitotenv.2016.09.113>.
22. Schmadel, N, A Ward, M Kurz, **JP Zarnetske**, D Hannah, T Blume, M Vieweg, P Blaen, C. Schmidt, J Knapp, M Klaar, P Romeijn, T Datry, T Keller, S Folegot, A Marruedo Arricibita, S Krause. (2016) Stream solute tracer timescales changing with discharge and

reach length confound process interpretation, *Water Resour. Res.*, 52, doi:10.1002/2015WR018062.

21. Briggs, MA, FD Day-Lewis, **JP Zarnetske**, and JW Harvey. (2015) A physical explanation for the development of redox microzones in hyporheic flow. *Geophys. Res. Lett.*, 42, doi: 10.1002/2015GL064200.
20. **Zarnetske, JP**, and PL Zarnetske (2015) Strategies for creating a conspicuous, effective, and memorable poster presentation. *GSA Today*, 25(5), doi: 10.1130/GSATG228GW.1.
19. **Zarnetske, JP**, R Haggerty, and SM Wondzell (2015) Coupling multi-scale observations to evaluate hyporheic nitrate removal at the reach scale. *Freshwater Science*, 34, doi: 10.1086/680011.
18. Roley, SS, JR Griffiths, PS Levi, CJ Patrick, S Sadro, and **JP Zarnetske*** (2014) Taking the pulse of the ecosystem: progress in quantifying aquatic ecosystem health. *Limnology and Oceanography*. doi: 10.4319/ecodas.2014.978-0-9845591-4-5.101.
**co-author equal contribution; listed alphabetical after corresponding author.*
17. Mazza, R, S Wondzell, **JP Zarnetske**. (2014) The stream subsurface: nitrogen cycling and the cleansing function of hyporheic zones. *Science Findings* 166. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. pp 6.
**author equal contribution; listed alphabetical after corresponding author.*
16. °°Yoon, HD, D Cox, D Albert, N Mori, H Smith, and **JP Zarnetske**. (2013). Ecological modeling of emergent vegetation for sustaining wetlands in high wave energy coastal environments. *Coastal Structures*, 1 & 2: 992-1001.
15. Ward, AS, MN Gooseff, TJ Voltz, M Fitzgerald, K Singha, and **JP Zarnetske** (2013) How does rapidly changing discharge during storm events affect transient storage and channel water balance in a headwater mountain stream? *Water Resour. Res.*, 49, doi:10.1002/wrcr.20434.
14. **Zarnetske, JP**, R Haggerty, SM Wondzell, V Bokil, and R González-Pinzón. (2012) Coupled transport and reaction kinetics control the nitrate source-sink function of hyporheic zones. *Water Resour. Res.*, 48, W11508, doi:10.1029/2012WR011894.
13. **Zarnetske, JP**, R Haggerty, SM Wondzell, and MA Baker. (2011) Labile dissolved organic carbon supply controls hyporheic denitrification. *J. Geophys. Res.*, 116, G04036, doi:10.1029/2011JG001730.
12. ****Zarnetske, JP**, R Haggerty, SM Wondzell, and MA Baker. (2011) Dynamics of nitrate production and removal as a function of residence time in the hyporheic zone. *J. Geophys. Res.*, 116, G01025, doi:10.1029/2010JG001356.
Web of Science Highly Cited Paper (paper received enough citations to place it in the top 1% of Geoscience field based on a highly cited threshold for the field and publication year); 2011 Editor's Choice, AGU Eos Research Spotlight; A Top Downloaded JGR Article
11. Argerich, A, R Haggerty, M Eugènia, S Francesc, and **JP Zarnetske**. (2011) Quantification of metabolically active transient storage (MATS) in two reaches with contrasting transient storage and ecosystem respiration. *J. Geophys. Res.*, 116, G03034, doi: 10.1029/2010JG001379.

10. Brosten, TR, JH Bradford, JP McNamara, MG Gooseff, **JP Zarnetske**, WB Bowden, and ME Johnson. (2009) Estimating 3D variation in active-layer thickness beneath arctic streams using ground-penetrating radar. *J. of Hydrology*, 373(304): 479-486, doi:10.1016/j.jhydrol.2009.05.011
9. Brosten, TR, JH Bradford, JP McNamara, MG Gooseff, **JP Zarnetske**, WB Bowden, and ME Johnson. (2009) Multi-offset GPR methods for hyporheic zone investigations. *Near Surface Geophysics*. 7(4): 247-257, doi: 10.3997/1873-0604.2008034.
8. **Zarnetske, JP**, MN Gooseff, WB Bowden, MJ Greenwald, JP McNamara, JH Bradford, and TR Brosten. (2008) Influence of morphology and permafrost dynamics on hyporheic exchange in arctic headwater streams under warming climate conditions, *Geophys. Res. Lett.*, 35, L02501, doi:10.1029/2007GL032049.
7. Crook, N, A Binley, R Knight, DA Robinson, **JP Zarnetske**, and R Haggerty. (2008) Electrical resistivity imaging of the architecture of substream sediments. *Water Resour. Res.*, 44, W00D13, doi:10.1029/2008WR006968.
6. Gooseff, MN, RA Payn, **JP Zarnetske**, WB Bowden, JP McNamara, and JH Bradford. (2008) Comparison of in-channel mobile-immobile zone exchange during instantaneous and constant-rate stream tracer additions: Implications for design and interpretation of non-conservative tracer experiments. *J. of Hydrology*, 357: 112-124, doi:10.1016/j.jhydrol.2008.05.006.
5. Payn, RA, MN Gooseff, DA Benson, OA Cirpka, **JP Zarnetske**, WB Bowden, JP McNamara, and JH Bradford. (2008) Comparison of instantaneous and constant-rate stream tracer experiments through non-parametric analysis of residence time distributions, *Water Resour. Res.*, 44, W06404, doi:10.1029/2007WR006274.
4. Greenwald, MJ, WB Bowden, MN Gooseff, **JP Zarnetske**, JP McNamara, JH Bradford, and TR Brosten (2008) Hyporheic exchange and water chemistry of two arctic tundra streams of contrasting geomorphology, *J. Geophys. Res.*, 113, G02029, doi:10.1029/2007JG000549.
3. Bowden, WB, MJ Greenwald, MN Gooseff, **JP Zarnetske**, JP McNamara, J Bradford, and T Brosten (2008) Carbon, nitrogen, and phosphorus interactions in the hyporheic zones of arctic streams draining areas of continuous permafrost, eds. DL Kane, and KM Hinkel, *Ninth International Conference on Permafrost*, Institute of Northern Engineering, 165-170.
2. **Zarnetske, JP**, MN Gooseff, WB Bowden, TR Brosten, JH Bradford, and JP McNamara. (2007) Transient storage as a function of geomorphology, discharge, and permafrost active layer conditions in Arctic tundra streams, *Water Resour. Res.*, 43, W07410, doi:10.1029/2005WR004816.
1. Brosten, TR, JH Bradford, JP McNamara, **JP Zarnetske**, MG Gooseff, and WB Bowden. (2006) Profiles of temporal thaw depths beneath two arctic stream types using ground-penetrating radar. *Permafrost Periglac. Process.*, 17: 341–355. doi: 10.1002/ppp.566.

SCHOLARLY THESES & COMMENTARIES

5. **Zarnetske JP**. (2011) Hydrophiles: Bringing students, faculty, and the public together to form a hydrocommunity. *WRGP Newsletter*. 1, 1-2.

4. **Zarnetske JP.** (2011) Dissertation: Hydrological and biogeochemical dynamics of nitrate production and removal at the stream – ground water interface. Oregon State University, Corvallis, OR, pp. 173.
3. **Zarnetske JP.** (2006) Thesis: Headwater hyporheic zones in a warming arctic climate: An assessment of hyporheic dynamics across distinct geomorphic and permafrost conditions. Utah State University, Logan, UT, pp. 138.
2. **Zarnetske JP.** (2000) Thesis: Sound attenuation in an artificial rock fracture: A study of *in situ* remediation technology enhancement. Colby College, Waterville, ME, pp. 66.
1. **Zarnetske JP.** (1999) Thesis: Performance of a mixed-species tree plantation in North Queensland, Australia. School for Field Studies, Centre for Rainforest Studies, Queensland, Australia, pp. 28.

ACADEMIC RESEARCH GRANTS & FELLOWSHIPS

CAREER SUMMARY

TOTAL AWARDS = \$2.83M

ZARNETSKE LAB DIRECTLY AWARDED = \$1.50M

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| 10. National Science Foundation, ARCSS, PI (\$1,362,000; 477,298 to Zarnetske),
2019 “ <i>COLLABORATIVE RESEARCH: Constraining fate and function of permafrost nutrients with direct multi-scale observations: Streams networks as indicators of watershed processes</i> ” | 2019-
2022 |
| 9. National Science Foundation, EAR-CAREER, PI (\$470,000 to Zarnetske)
“ <i>CAREER: Towards Forecasting Watershed Organic Carbon Fluxes across Flow Regimes and Ecoregions</i> ” | 2019-
2024 |
| 8. Detroit Science Gallery, Depth Exposition, PI (\$3,000 to Zarnetske)
“ <i>Hidden Waters</i> ” Art Exhibit | 2019 |
| 7. National Science Foundation, EAR-Hydrological Sciences, PI (\$532,113;
\$239,033 to Zarnetske)
“ <i>Collaborative Research: Unlocking the transient storage blackbox: Revealing the role of less-mobile porosity in hyporheic denitrification and greenhouse gas production</i> ” | 2015-
2019 |
| 6. Leverhulme Trust, United Kingdom, Co-PI (\$182,306; \$26,000 to Zarnetske)
“ <i>Where rivers, groundwater and disciplines meet: a hyporheic research network</i> ” | 2014-
2017 |
| 5. Yale Institute for Biospheric Studies, Gaylord Donnelly Postdoctoral Fellowship Grant, PI (\$104,000 to Zarnetske)
“ <i>Flow Regime Controls on River Nitrogen and Carbon Export Under Past, Present, and Future Climate Conditions</i> ” | 2011-
2013 |

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| 4. | NSF in cooperation with New Zealand National Institute for Water and Atmospheric Research, Inc., IGERT Research Grant, PI (\$13,000 to Zarnetske)
<i>“Identifying Environmental Flows and Groundwater – Surface Water Connectivity in a Strongly Gaining Stream Environment”</i> | 2010-
2011 |
| 3. | Society of Freshwater Sciences, Graduate Research Grant, PI (\$1,000 to Zarnetske)
<i>“Isotope Tracing to Illuminate Mechanisms and Improve Modeling of Surface-Groundwater Exchange Controls on Stream Nitrogen”</i> | 2010-
2011 |
| 2. | United States Geological Survey, Water Science Center Grant, PI (\$10,000 to Zarnetske)
<i>“Groundwater - Surface Water Exchange Controls Nitrogen Export from Headwater Streams in Oregon, USA”</i> | 2008-
2010 |
| 1. | Geological Society of America, Graduate Research Grant, PI (\$1,930 to Zarnetske)
<i>“Toward Robust Estimates of Stream – Groundwater Exchange: Innovative Hyporheic Geophysics and Transport Modeling of a Key Nutrient</i> | 2009-
2010 |

COMPETITIVE FELLOWSHIPS AND AWARDS TO ZARNETSKE

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| 14. | NSF Early CAREER Award | 2019 |
| 13. | Donnelley Environmental Postdoctoral Fellowship, Yale University | 2011-2013 |
| 12. | NSF Graduate Fellow: IGERT - Ecosystem Informatics | 2008-2011 |
| 11. | Water Resources Travel Award, Oregon State Univ. | 2011 |
| 10. | Biennial Travel Award, CUAHSI | 2010 |
| 9. | Kenneth Williamson Water Prize, Oregon State Univ. | 2009 |
| 8. | Water Resources Travel Award, Oregon State Univ. | 2009 |
| 7. | American Association for the Advancement of Science Travel Award | 2009 |
| 6. | Water Resources Alumni Prize, Oregon State Univ. | 2008 |
| 5. | Denny Tower Equipment Award, Oregon State Univ. | 2008 |
| 4. | Outstanding Performance Recognition Award, CDM, Inc. | 2003 |
| 3. | Team Outstanding Performance Recognition Award, CDM, Inc. | 2002 |
| 2. | Geology Alumni Award, Colby College | 2000 |
| 1. | Edith Craig Reynolds Fellowship, New York State | 1996 |

HONORS AND RECOGNITION

SCHOLARLY HONORS

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| 22. | <i>Highly Cited Paper Distinction (top 1% of in Environment/Ecology field), Thomson Reuters Web of Science (Abbott et al., 2018 Ecology Letters)</i> | 2019 |
| 21. | <i>Teacher-Scholar Award, College of Natural Science, MSU</i> | 2019 |

20. *Outstanding Faculty Award, Associated Students of MSU* 2016
19. *Excellence in Reviewing, Editor's Citation, Freshwater Science* 2015
18. *Highly Cited Paper Distinction (top 1% of in Geosciences field), Thomson Reuters Web of Science (Zarnetske et al., 2011 JGR-B)* 2014
17. *Excellence in Reviewing, Editor's Citation, Freshwater Science* 2014
16. *Research Highlight Award, U.S. Forest Service* 2014
15. *Eco-DAS X Early Career Fellow, joint NSF, NASA, & NOAA program* 2012
14. *New York Academy of Science: Blavatnik Postdoctoral Award, Yale nominee* 2012
13. *Universities Council on Water Resources Outstanding Dissertation Award in Water Resources, nominee* 2011
12. *Featured Researcher, National Science Foundation IGERT Program* 2011
11. *Editor's Choice and Eos Research Spotlight feature for research published in Journal of Geophysical Research (Zarnetske et al., 2011 JGR-B)* 2011
10. *Endowment Award, Society of Freshwater Sciences* 2010
- recognizes excellence among student members based on research merit
9. *University Club Foundation Graduate Award, Finalist* 2010
- one of top nine graduate students in Oregon
8. *Kenneth Williamson Water Award, Oregon State University* 2009
- for academic excellence and leadership in water research
7. *Outstanding Student Paper Award in Hydrology, American Geophysical Union* 2009
6. *Excellence in Science Award, American Assoc. for the Advancement of Science* 2009
5. *Best Presentation Award, Annual Water Resources Graduate Program Meeting* 2009
4. *Outstanding Student Paper Award in Hydrology, American Geophysical Union* 2008
3. *Best Presentation Award, Annual Water Resources Graduate Program Meeting* 2008
2. *Geology Alumni Award, Colby College* 2000
- for overall academic achievement, development, and research
1. *Distinction in Geology Curriculum, Colby College* 2000

SERVICE HONORS

4. *Water Resources Alumni Prize, Oregon State University* 2008
- for leadership and service in the water-community and cofounding a graduate mentorship program
3. *Outstanding Performance Recognition Award, CDM, Inc.* 2003
- highest CDM recognition award for an individual employee
2. *Team Outstanding Performance Recognition Award, CDM, Inc.* 2002
- for team leadership role in ExxonMobil Corporation Remediation Project
1. *Edith Craig Reynolds Award, State of New York* 1996
- for highest standard of citizenship demonstrated in high school

CURRENT TEACHING & ADVISING EXPERIENCE

Lead Instructor, *Michigan State University (East Lansing, MI)*

Hydrogeology (GLG 411, 40-60 students annually)

Watershed Hydrology (GLG 498; now GLG 813, 8-25 students annually)

Advisor, *Michigan State University (East Lansing, MI)*

- *Postdoctoral Advisor* (1 current; 1 previous)
- *Graduate Advisor/Advisory Chair* (2 current; 3 previous)
- *Graduate Committee Member* (3 current; 4 previous)
- *Undergraduate Research Advisor* (2 current; 10 previous)
- *External Dissertation Examiner* (1 previous)

SCHOLARLY AFFILIATIONS

NSF Long-term Ecological Research (LTER) Network Sites:

- Arctic LTER, Participant, Toolik Arctic Research Station, North Slope, AK, USA
- KBS LTER, Participant, Kellogg Biological Station, Hickory Corners, MI, USA
- Andrews LTER, Researcher, H.J. Andrews Experimental Forest, Blue River, OR, USA

Scholarly Organization Memberships & Affiliations:

- American Geophysical Union (AGU)
- Soc. for Freshwater Sciences (SFS)
- American Society for Limnology and Oceanography (ASLO)
- US Permafrost Association (USPA)
- Hyporheic Network (HN)
- Geological Society of America (GSA)
- Ecological Society of America (ESA)
- American Water Resources Association (AWRA)
- Permafrost Carbon Network (PCN)

SELECTED PROFESSIONAL PRESENTATIONS (°° student/post doc, ** award received)

INVITED PRESENTATIONS

45. **Zarnetske, JP.** (2019) Indiana University, O'Neill School
44. **Zarnetske, JP.** (2019) Oregon State University, Earth, Ocean, & Atmospheric Sciences
43. **Zarnetske, JP.** (2019a&b) Two seminars at University of Wisconsin, Geosciences
42. **Zarnetske, JP.** (2018) Colby College, Waterville, ME
41. **Zarnetske, JP.** (2018) Great Lakes Bioenergy Research Center, KBS, MI
40. **Zarnetske, JP.** (2018a&b) Two seminars at Luxembourg Inst. of Sci. & Tech., Luxembourg
39. **Zarnetske, JP.** (2018) Arctic LTER All Scientist Meeting, Woods Hole, MA
38. **Zarnetske, JP.** (2017) Env Sci & Policy Program Colloquia, Michigan State University
37. **Zarnetske, JP.** (2017) Gordon Research Conference: Catchment Sciences, Lewiston, ME
36. **Zarnetske, JP.** (2017) HydroEco International Conference, Birmingham, United Kingdom

35. **Zarnetske, JP.** (2017) Arctic LTER All Scientist Meeting, Woods Hole, MA
34. **Zarnetske, JP.** (2017) International Association for Great Lakes Research, Detroit, MI
33. **Zarnetske, JP.** (2017) OSUR, Rennes, France
32. **Zarnetske, JP.** (2016) Indiana University, SPEA
31. **Zarnetske, JP.** (2016) Arctic LTER/Toolik Field Station, North Slope, AK
30. **Zarnetske, JP.** (2016) University of Michigan, Smith Lecture.
29. Kurz, M, S Krause, **JP Zarnetske, et al.** (2016) European Geophysical Union Annual Meeting, Vienna, Austria.
28. **Zarnetske, JP.** (2015) University of Notre Dame.
27. **Zarnetske, JP.** (2015) École normale supérieure de Rennes, Rennes, France.
26. **Zarnetske, JP.** (2015) Université de Rennes, Rennes, France.
25. Krause, S, AS Ward, **JP Zarnetske, et al.** (2015) HydroEco'2015 5th International Multidisciplinary Conference on Hydrology and Ecology, Vienna, Austria.
24. **Zarnetske, JP.** (2015) Michigan State University, Plant, Soil and Microbial Sciences.
23. **Zarnetske, JP.** (2015) Ohio State University.
22. **Zarnetske, JP.** (2014) University of Michigan.
21. **Zarnetske, JP.** (2014) Eco-DAS Symposium, Portland, OR.
20. **Zarnetske, JP.** (2014) European Geophysical Union Annual Meeting, Vienna, Austria.
19. **Zarnetske, JP.** (2014) Joint Aquatic Sciences Meeting, Portland, OR.
18. **Zarnetske, JP.** (2013) Kellogg Biological Station, Michigan State University.
17. **Zarnetske, JP.** (2013) Michigan State University.
16. **Zarnetske, JP.** (2013) University of New Mexico.
15. **Zarnetske, JP.** (2013) University of Washington – Seattle.
14. **Zarnetske, JP.** (2013) University of North Carolina – Chapel Hill.
13. **Zarnetske, JP.** (2013) Montana State University.
12. **Zarnetske, JP.** (2013) Colorado State University.
11. **Zarnetske, JP.** (2013) University of Rhode Island.
10. **Zarnetske, JP.** (2013) Portland State University.
9. **Zarnetske, JP.** (2013) University of Washington - Tacoma.
8. **Zarnetske, JP.** (2012) Eco-DAS X Symposium, Honolulu, HI.
7. **Zarnetske, JP.** (2012) Institute for Biospheric Studies, Yale University, New Haven, CT.
6. **Zarnetske, JP.** (2012) University of California – Berkeley.
5. **Zarnetske, JP.** (2011) AGU Fall Meeting, San Francisco, CA.
4. **Zarnetske, JP.** (2010) AGU Fall Meeting, San Francisco, CA.
3. **Zarnetske, JP.** (2010) University of Canterbury, Christchurch, New Zealand.
2. **Zarnetske, JP.** (2010) Nation Institute of Watershed and Atmospheric Research, Christchurch, New Zealand.
1. **Zarnetske, JP.** (2009) IGERT Ecosystem Informatics Symposium, Corvallis, OR.