

Postdoctoral Researcher

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Professional appointments

Postdoctoral Researcher – Lawrence Livermore National Laboratory, Center for Accelerator Mass Spectrometry, Livermore, USA	08.2024 – present
Postdoctoral Fellow – Max Planck Institute for Chemistry, Climate Geochemistry Department, Mainz, Germany	07.2022 – 06.2024
Postdoctoral Researcher – University of Bern, Oeschger Centre for Climate Change Research & Institute of Geography, Bern, Switzerland	07.2021 – 06.2022
Adjunct Faculty – Pima Community College, Tucson, USA	01.2016 – 01.2017

Education

PhD Climate Sciences , University of Bern, <i>summa cum laude</i> Dissertation title: “ <i>The varved sediments of Lake Żabińskie, Poland as a high-resolution archive of environmental change</i> ” Advisors: Prof. Dr. Martin Grosjean (University of Bern), Prof. Dr. Wojciech Tylmann (University of Gdańsk)	05.2021
MSc Geology , Northern Arizona University, <i>summa cum laude</i> Thesis title: “ <i>Tephrochronology and paleoenvironmental change during the past 15,000 years at Whitshed Lakes, South-central Alaska</i> ” Advisor: Prof. Dr. Darrell Kaufman	05.2015
BSc Environmental Science , Math Minor, Northern Arizona University, <i>magna cum laude</i>	12.2011

Publications

Published in peer-reviewed journals:

23. Beffa, G., Gobet, E., Coşgun, S., Dotta, R., Hächler, L., Morlock, M.A., Sadori, L., Schläfli, P., Schwörer, C., van Vugt, L., Vogel, H., **Zander, P.D.**, Grosjean, M., Tinner, W. (2025). Causes of co-existence of cool-temperate *Fagus* and warm-loving evergreen *Quercus* forests in central Italy during the Holocene Thermal Maximum. *Forest Ecosystems (In Press)*. <https://doi.org/10.1016/j.fecs.2025.100345>.
22. **Zander, P.D.**, Rubach, F., Martínez-García, A. (2025). Large volume injection and assessment of reference standards for *n*-alkane δD and $\delta^{13}C$ analysis via gas chromatography isotope ratio mass spectrometry. *Rapid Communications in Mass Spectrometry*, 39, e9943. <http://doi.org/10.1002/rcm.9943>.
21. Ganz, K., van Vugt, L., Gobet, E., Morales-Molino, C., Giagkoulis, T., Ogi, S., Hächler, L., Schaad, E., **Zander, P.D.**, Lloren, R., Dubois, N., Grosjean, M., Vogel, H., Kotsakis, K., Bogaard, A., Hafner, A., Tinner, W. (2025). Holocene climate–vegetation–land use interactions in the mesomediterranean coastlands of northern Greece. *The Holocene*, 35, 271–288. <https://doi.org/10.1177/09596836241297665>.
20. **Zander, P.D.**, Żarczyński, M., Tylmann, W., Vogel, H., Grosjean, M. (2024). Subdecadal Holocene warm-season temperature variability in central Europe recorded by biochemical varves. *Geophysical Research Letters*, 51, e2024GL110871. <http://doi.org/10.1029/2024GL110871>.
19. Albert, J., **Zander, P.D.**, Grosjean, M., Sirocko, F. (2024). Fine-Tuning of Sub-Annual Resolution Spectral Index Time Series from Eifel Maar Sediments, Western Germany, to the NGRIP $\delta^{18}O$ Chronology, 26–60 ka. *Quaternary*, 7, 33. <https://doi.org/10.3390/quat7030033>.
18. Tu, L., Xue, H., Zhou, X., Liu, X., **Zander, P.D.**, Huang, T., Meng, L., Kan, W., Huang, C., Grosjean, M. (2024). 20th century climate warming and human disturbance triggered high aquatic production and strong water-column mixing in maar Lake Xiaolongwan, northeastern China. *Anthropocene*, 47, 100442. <https://doi.org/10.1016/j.ancene.2024.100442>.
17. Beffa, G., Gobet, E., Hächler, L., Isola, I., Morlock, M.A., Sadori, L., Schläfli, P., Rey, F., van Vugt, L., Vogel, H., **Zander, P.D.**, Zanchetta, G., Grosjean, M., Tinner, W. (2024). A novel continuous high-resolution palaeoecological record from central Italy suggests comparable land use dynamics in Southern and Central Europe during the Neolithic. *The Holocene*, 34, 1009–1024. <https://doi.org/10.1177/09596836241247302>.

16. **Zander, P.D.**, Böhl, D., Sirocko, F., Auderset, A. Haug, G.H., Martínez-García, A. (2024). Reconstruction of warm season temperatures in central Europe during the past 60,000 years from lacustrine GDGTs. *Climate of the Past*, 20, 841–864. <https://doi.org/10.5194/cp-20-841-2024>.
15. Tu, L., Moyle, M., Boyle, J.F., **Zander, P.D.**, Huang, T., Meng, L., Huang, C., Zhou, X. Grosjean, M. (2023). Anthropogenic modification of phosphorus sequestration in lake sediments during the Holocene: A global perspective. *Global and Planetary Change*, 229, 104222. <https://doi.org/10.1016/j.gloplacha.2023.104222>.
14. **Zander, P.D.**, Wirth, S.B., Gilli, A., Peduzzi, S., Grosjean, M. (2023). Hyperspectral imaging sediment core scanning tracks high-resolution Holocene variations in (an)oxygenic phototrophic communities at Lake Cadagno, Swiss Alps. *Biogeosciences*, 20, 2221–2235. <https://doi.org/10.5194/bg-20-2221-2023>. (**Highlight paper*)
13. McKenna, A.M., **Zander, P.D.**, Wörmer, L. (2022). Advancing analytical frontiers in molecular biomarker research through spatial and mass resolution. *Elements*, 18, 107–113. <https://doi.org/10.2138/gselements.18.2.107>. (*Invited review*)
12. Żarczyński, M., **Zander, P.D.**, Grosjean, M., Tylmann, W. (2022). Linking the formation of varves in a eutrophic temperate lake to meteorological conditions and water column dynamics. *Science of the Total Environment*, 842, 156787. <https://doi.org/10.1016/j.scitotenv.2022.156787>.
11. **Zander, P.D.**, Wienhues, G., Grosjean, M. (2022). Scanning Hyperspectral Imaging for In Situ Biogeochemical Analysis of Lake Sediment Cores: Review of Recent Developments. *Journal of Imaging*, 8, 58. <https://doi.org/10.3390/jimaging8030058>. (*Invited review*)
10. **Zander, P.D.**, Żarczyński, M., Tylmann, W., Rainford, S. K., Grosjean, M. (2021). Seasonal climate signals preserved in biochemical varves: insights from novel high-resolution sediment scanning techniques. *Climate of the Past*, 17, 2055–2071. <https://doi.org/10.5194/cp-17-2055-2021>.
9. **Zander, P.D.**, Żarczyński, M., Vogel, H., Tylmann, W., Wacnik, A., Sanchini, A., Grosjean, M. (2021). A high-resolution record of Holocene primary productivity and water-column mixing from the varved sediments of Lake Żabińskie, Poland. *Science of the Total Environment*, 755, 143713. <https://doi.org/10.1016/j.scitotenv.2020.143713>.
8. Chiaia-Hernández, A. C., **Zander, P.D.**, Schneider, T., Szidat, S., Lloren, R., Grosjean, M. (2020). A high-resolution historical record of plant protection products deposition documented by target and nontarget trend analysis in a Swiss lake under anthropogenic pressure. *Environmental Science & Technology*, 54, 13090–13100. <https://doi.org/10.1021/acs.est.0c04842>.
7. Tu, L., **Zander, P.**, Szidat, S., Lloren, R., Grosjean, M. (2020). The influences of historic lake trophy and mixing regime changes on long-term phosphorus fractions retention in sediments of deep, eutrophic lakes: a case study from Lake Burgäschi, Switzerland. *Biogeosciences*, 10, 2715–2729. <https://doi.org/10.5194/bg-17-2715-2020>.
6. **Zander, P.D.**, Szidat, S., Kaufmann, D.S., Żarczyński, M., Poraj-Górska, A.I., Boltshauser-Kaltenrieder, P., Grosjean, M. (2020). Miniature radiocarbon measurements (< 150 µg C) from sediments of Lake Żabińskie, Poland: effect of precision and dating density on age–depth models. *Geochronology*, 2, 63–79. <https://doi.org/10.5194/gchron-2-63-2020>.
5. McKay, N.P., Kaufman, D.S., Routson, C.C., Erb, M.P., **Zander, P.D.** (2018). The onset and rate of Holocene Neoglacial cooling in the Arctic. *Geophysical Research Letters*, 45, 12–487. <https://doi.org/10.1029/2018GL079773>.
4. **Zander, P.D.**, Kaufman, D.S., McKay, N.P., Kuehn, S.C., Henderson, A.C. (2018). Using correlated tephras to refine radiocarbon-based age models, upper and lower Whitshed Lakes, south-central Alaska. *Quaternary Geochronology*, 45, 9–22. <https://doi.org/10.1016/j.quageo.2018.01.005>.
3. Tierney, J.E., deMenocal, P.B., **Zander, P.D.** (2017). A climatic context for the out-of-Africa migration. *Geology*, 45, 1023–1026. <https://doi.org/10.1130/G39457.1>.
2. Garrett, E., Barlow, N.L., Cool, H., Kaufman, D.S., Shennan, I., **Zander, P.D.** (2015). Constraints on regional drivers of relative sea-level change around Cordova, Alaska. *Quaternary Science Reviews*, 113, 48–59. <http://doi.org/10.1016/j.quascirev.2014.12.002>.
1. **Zander, P.D.**, Kaufman, D.S., Kuehn, S.C., Wallace, K.L., Anderson, R.S. (2013). Early and late Holocene glacial fluctuations and tephrostratigraphy, Cabin Lake, Alaska. *Journal of Quaternary Science*, 28, 761–771. <http://doi.org/10.1002/jqs.2671>.

Magazine articles:

1. Żarczyński, M*, **Zander, P.D.***. Combining hyperspectral imaging and micro-X-ray fluorescence imaging methods for ultrahigh-resolution biogeochemical analysis (2025). *PAGES Magazine*, 33. <http://doi.org/10.22498/pages.33.2>.
*Co-first authorship

Reports and theses:

3. **Zander, P.D.** (2021). The varved sediments of Lake Żabińskie, Poland as a high-resolution archive of environmental change (Doctoral dissertation, University of Bern). <http://doi.org/10.13140/RG.2.2.16866.61129>
2. **Zander, P.D.** (2015). Tephrochronology and paleoenvironmental change during the past 15,000 years at Whitshed Lakes, South-central Alaska (Master's thesis, Northern Arizona University). <http://doi.org/10.13140/RG.2.2.30288.38400>

1. Ngai, C.K.L., Chandra, S., Sullivan, J., Umek, J., Chaon, B., **Zander, P.**, Rudolph, H., et al. (2010). NICHES: Nearshore Indicators for Clarity, Habitat and Ecological Sustainability Development of nearshore fish indicators for Lake Tahoe. *Nevada Division of State Lands*.
https://lands.nv.gov/uploads/documents/License_WQ_Nearshore_Indicators_for_Clarity,_Habitat_and_Ecological_Sustainability.pdf

Publications in progress (available upon request):

Zander, P.D., Sirocko, F., Du, X., Sun, C., Rubach, F., Haug, G.H., Martínez-García, A. Leaf wax δD reveals variable humidity and growing season length in Europe in response to Dansgaard-Oeschger cycles. (In prep).

Zander, P.D., Grant, K.E., Finstad, K.M., Morrison, K.D., Pett-Ridge, J., McFarlane, K.J., Radiocarbon analysis of phospholipids to assess microbial carbon assimilation in soils. (In prep).

Schouten, S.J., Grosjean, M., **Zander, P.D.**, Schmidhauser, N.R., Tu, L., Lami, L., Vogel, H., van Leeuwen, J., Zahajská, P. Climate-Eutrophication-Anoxia Interactions in Late Glacial Soppensee, Switzerland: Forcings, Non-linear Responses and Recovery. (submitted, *Quaternary Science Reviews*).

Teaching

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|---------------------------|---|
| May 2022 | Co-instructor , Workshop on dating recent sediments with 210-Pb, University of Bern <ul style="list-style-type: none"> ▪ 1-day course on the use of 210-Pb isotopes for dating lake sediments ▪ Led a practical exercise on the use of various models to calculate ages from 210-Pb data |
| June 2021 & June 2022 | Lead Instructor , Paleolimnology Field and Laboratory Methods, University of Bern (Master's level) <ul style="list-style-type: none"> ▪ 3-day course for graduate students in Geography, Climate Science, or Ecology and Evolution ▪ Responsible for field, laboratory and lecture instruction on sediment core analysis |
| Spring 2016 & Fall 2016 | Instructor (Adjunct Faculty) , Physical Geology, Pima Community College <ul style="list-style-type: none"> ▪ Introductory fundamentals of geology course for Geology and non-science majors ▪ 80 hours of integrated lecture and laboratory instruction per semester, plus one full-day field trip ▪ Fully responsible for all lecture, laboratory and field instruction |
| Spring 2015 | Teaching Assistant , Principles of Geomorphology, Northern Arizona University <ul style="list-style-type: none"> ▪ Led laboratory and field exercises to support lecture content, including GIS exercises ▪ Independently developed a laboratory exercise on glaciofluvial geomorphology ▪ Helped plan and lead a 3-day field trip to Death Valley |
| Spring 2014 & Spring 2015 | Teaching Assistant , Advanced Geologic Field Methods, Northern Arizona University <ul style="list-style-type: none"> ▪ Senior capstone field mapping course ▪ Assisting students with geologic mapping and field-based projects focused on surficial geology, hydrogeology, and volcanics ▪ Assisting students with production of geologic maps in GIS |
| Fall 2013 & Spring 2014 | Teaching Assistant , Geologic Disasters, Northern Arizona University <ul style="list-style-type: none"> ▪ Introductory undergraduate course for all majors ▪ Led laboratory and field exercises to support lecture content |

Additional professional experience

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| 2015-2017 | Research Technician/Laboratory Manager , University of Arizona, Organic Geochemistry Laboratory, Department of Geosciences, Tucson, USA |
| 2012 | Research Assistant , Sierra Nevada Conservancy, South Lake Tahoe, USA |
| 2010-2012 | Research Assistant , Northern Arizona University, Geology Department, Flagstaff, USA |
| 2010 | NSF Research Experience for Undergraduates , University of Nevada & Tahoe Environmental Research Center, Reno, USA |
| 2007-2010 | Intern/Administrative Assistant – Environmental Incentives, LLC, South Lake Tahoe, USA |

Mentorship and supervision

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| 2022-present | Mentor , Geosciences Education & Mentorship Support (GEMS) <ul style="list-style-type: none"> ▪ Guided two students through graduate school application process |
| 2018-2022 | University of Bern : Training students and researchers for sediment core descriptions, hyperspectral core-scanning, pigment extraction and analysis <ul style="list-style-type: none"> ▪ Master's thesis advisor: Luc Hächler ▪ Supervision of student research assistants: Lara Zinkl, Emmanuel Schaad |

- 2016-2017 **University of Arizona:** Training and supervising students and visiting researchers for lipid biomarker extraction, separation, and analysis with GC-FID, HPLC-MS, GC-IRMS
 ▪ **Supervision of 7 undergraduate research assistants**

Funding and awards

- 2026 *Fire-environment-human interactions: Assessment of biomarkers for distinguishing and reconstructing past intensity and fuels of wildland fire.* Strategic Environmental Research and Development Program, Department of Defense, 9 months, Co-I - **\$250,000**
- 2022-2024 *Molecular perspectives on hydroclimate response to rapid temperature change in Central Europe during the last glacial cycle.* Swiss National Science Foundation Postdoc.Mobility fellowship, 24 months, PI - **97,200 CHF (\$102,000)**
- 2019 Young Researchers Travel Support Grant, Faculty of Science, University of Bern - **1,000 CHF (\$1,050)**
- 2017 1st place poster prize, Bern Workshop on ¹⁴C Analyses with the Mini-Carbon Dating System
- 2013 Visiting Graduate Student Grant, LacCore, University of Minnesota - **\$1,000**
- 2013 Geological Society of America Graduate Research Grant and Alexander Sisson Award - **\$1,532**
- 2010 NASA Undergraduate Research in Global Climate Change Grant - **\$8,400**
- 2010 National Science Foundation Research Experience for Undergraduates grant - **\$4,250**

Invited seminar presentations

- 2025 Biogeochemistry Community Seminar, Lawrence Livermore National Laboratory, Livermore, USA. *"60,000 years of climate change in Europe reconstructed from lipid biomarkers in lake sediments"*
- 2024 Climate Geochemistry Seminar, Max Planck Institute for Chemistry, Mainz, Germany. *"Temperature and hydroclimate variability in western Europe during the past 60,000 years based on lipid biomarkers from Eifel maar lake sediments."*
- 2024 Lawrence Livermore National Laboratory, Atmospheric, Earth, & Energy Division, Livermore, USA. *"Windows into the past: biogeochemical analysis of lake sediments for past climate and environmental reconstruction."* (online).
- 2023 Pacific Northwest National Laboratory, Sequim, USA. *"Lake sediments as recorders of changing biogeochemical conditions and processes."* (online).
- 2023 Institute of Geosciences seminar, Johannes Gutenberg-University, Mainz, Germany. *"Paleoenvironmental insights from biogeochemical analysis of lake sediments."*
- 2022 Varves Working Group seminar series. *"Hyperspectral imaging sediment core scanning for biogeochemical analysis."* (online).
- 2022 Climate Geochemistry Seminar, Max Planck Institute for Chemistry, Mainz, Germany. *"Hyperspectral imaging core scanning for sediment biogeochemical analysis."*
- 2019 Environmental Change Reconstruction Laboratory, Faculty of Oceanography and Geography, University of Gdańsk, Gdańsk, Poland. *"Tephrochronology and paleoenvironmental change during the past 15,000 years from Whitshed Lakes, south-central Alaska."*

Conference presentations

Note: co-authored abstracts not listed except those presented by supervised students ()*

23. **Zander, P.D.**, Sirocko, F., Du, X., Sun, C., Rubach, F., Haug, G. H., & Martinez-Garcia, A. (2025). Millennial-scale variability of n-alkane D/H ratios in response to Dansgaard-Oeschger cycles, Eifel Volcanic Field, Germany. *Goldschmidt 2025*, Prague, Czech Republic (oral).
22. **Zander, P.D.**, Grant, K.E., Finstad, K.M., Pett-Ridge, J., Morrison, K., McFarlane, K.J. (2025). Radiocarbon analysis of phospholipids to assess microbial carbon assimilation in soils. *25th Radiocarbon Conference*, Krakow, Poland (poster).
21. **Zander, P.D.**, Żarczyński, M., Tylmann, W., Vogel, H., Grosjean, M. (2024). 10,800-year record of spring and summer temperature variability from biochemical varves, Lake Żabińskie, Poland. *INTIMATE Colloquium 2024*, Potsdam, Germany (oral).
20. **Zander, P.D.**, Sirocko, F., Du, X., Sun, C., Rubach, F., Britzius, S., Haug, G., Martínez-García, A. (2024). Millennial-scale changes in hydroclimate during the last glacial period in central Europe reconstructed from leaf wax δD . *European Geophysical Union General Assembly*, Vienna, Austria (poster).

19. **Zander, P.D.**, Böhl, D., Sirocko, F., Haug, G., Martínez-García, A. (2023). Correcting bias in brGDGT temperature reconstructions and a 60,000 year record of Central Europe warm season temperatures. *2nd International GDGT Workshop*, Zurich, Switzerland (poster).
18. **Zander, P.D.**, Böhl, D., Sirocko, F., Haug, G., Martínez-García, A. (2023). Improved calibration of the GDGT paleothermometer in lake sediments and reconstruction of warm season temperatures in Europe during the past 60,000 years. *Goldschmidt 2023*, Lyon, France (poster).
17. **Zander, P.D.**, Wirth, S.B., Gilli, A., Grosjean, M. (2022). Tracking high-resolution variations of phototrophic communities during the Holocene using hyperspectral imaging core-scanning, Lake Cadagno, Swiss Alps. *European Geophysical Union General Assembly*, Vienna, Austria (oral).
16. **Zander, P.D.**, Żarczyński, M., Tylmann, W., Vogel, H., Grosjean, M. (2022). Holocene spring and summer temperature variability inferred from Ca/Ti ratios, Lake Żabińskie, Poland. *PAGES 6th Open Science Meeting* (online), Agadir, Morocco (oral).
15. *Hächler L., Beffa G., **Zander P.**, Tinner W., Grosjean M. (2021). High resolution record of primary productivity and anoxia in the context of the environmental history of Lago di Mezzano, Central Italy, since the Late Glacial. *19th Swiss Geoscience Meeting* (online), Geneva, Switzerland (oral).
14. **Zander, P.D.**, Żarczyński, M., Tylmann, W., Rainford, S. K., Grosjean, M. (2021). Seasonal climate signals preserved in biochemical varves: insights from novel high-resolution biogeochemical imaging techniques. *19th Swiss Geoscience Meeting* (online), Geneva, Switzerland (oral).
13. **Zander, P.**, Żarczyński, M., Tylmann, W., Rainford, S. K., Grosjean, M. (2021). Searching for weather in varves: use of ultra-high-resolution scanning techniques to reconstruct seasonal meteorological conditions. *European Geophysical Union General Assembly* (online).
12. **Zander, P.D.**, Żarczyński, M., Vogel, H., Tylmann, W., Wacnik, A., Sanchini, A., Grosjean, M. (2021). High-resolution record of Holocene primary productivity and water column mixing from varved sediments. *British Phycological Society 69th Annual Meeting* (online), Nottingham, United Kingdom (oral).
11. **Zander, P.D.**, Żarczyński, M., Vogel, H., Tylmann, W., Wacnik, A., Sanchini, A., Grosjean M. (2020). High-resolution Holocene multi-proxy reconstruction of aquatic productivity and lake mixing regime, Lake Żabińskie, Poland. *18th Swiss Geoscience Meeting* (online), Zurich, Switzerland (oral).
10. **Zander, P.**, Kaufman, D., Grosjean, M., Szidat, S., Żarczyński, M., Poraj-Górska, A. (2019). Radiocarbon dating in lake sediments: assessing the usefulness of very small samples using the Mini Carbon Dating System (MICADAS). *20th Congress of the International Union for Quaternary Research (INQUA)*, Dublin, Ireland (poster).
9. **Zander, P.**, Grosjean, M., Tylmann, W., Żarczyński, M., Wacnik, A. (2019). High-resolution multi-proxy reconstruction of Holocene productivity and lake mixing dynamics, Lake Żabińskie, Poland. *20th Congress of the International Union for Quaternary Research (INQUA)*, Dublin, Ireland (oral).
8. **Zander, P.**, Grosjean, M., Tylmann, W., Żarczyński, M., Wacnik, A. (2019). High-resolution multi-proxy reconstruction of Holocene productivity and lake mixing dynamics, Lake Żabińskie, NE Poland. *20th Swiss Global Change Day*, Bern, Switzerland (poster).
7. **Zander, P.**, Grosjean, M., Tylmann, W., Filipiak, J. (2018). Combining Hyperspectral Imaging and μ XRF data to link varve-formation processes with meteorological data, Lake Żabińskie, Poland. *16th Swiss Geoscience Meeting*, Bern, Switzerland (poster).
6. **Zander, P.**, Grosjean, M., Tylmann, W., Filipiak, J. (2018). Combining Hyperspectral Imaging and μ XRF data to link varve-formation processes with meteorological data, Lake Żabińskie, Poland. *International Paleolimnological Association Meeting*, Stockholm, Sweden (poster).
5. **Zander, P.**, Grosjean, M., Tylmann, W., Filipiak, J. (2018). Combining Hyperspectral Imaging and μ XRF data to link varve-formation processes with meteorological data, Lake Żabińskie, Poland. *19th Swiss Global Change Day*, Bern, Switzerland (poster).
4. **Zander, P.** (2017). Dating recent sediments with radionuclides: Examples from Alaska. 1st Bern Workshop on ^{14}C Analyses with the Mini-Carbon Dating System, Bern, Switzerland (invited talk).
3. **Zander, P.D.**, Kaufman, D.S., Anderson, R.S., Kuehn, S.C., McKay, N.P., Henderson, A.C.G. (2017). ^{14}C age model refinement based on correlated tephra deposits at Whitshed lakes, Cordova, Alaska. 1st Bern Workshop on ^{14}C Analyses with the Mini-Carbon Dating System, Bern, Switzerland (poster).
2. **Zander, P.D.**, Kaufman, D.S., Anderson, R.S., Kuehn, S.C., McKay, N.P., Henderson, A.C.G. (2015). Tephrochronology and paleoenvironmental change during the past 15,000 years from Whitshed Lakes, south-central Alaska. *Sixth International Limnogeology Congress*, Reno, Nevada (poster).
1. **Zander, P.D.**, Kaufman, D.S., Anderson, R.S. (2012). Holocene climatic variability and extent of the Sheridan Glacier inferred from the sediment of Cabin Lake, Alaska. *42nd International Arctic Workshop, Institute of Arctic and Alpine Research (INSTAAR)*, University of Colorado, Boulder (poster).

Professional service

- 2021-present **Ad-hoc peer reviewer**, Journals: *Nature*, *Nature Geoscience*, *Geology*, *Geophysical Research Letters*, *Climate of the Past*, *Communications Earth and Environment*, *Geochronology*, *Bulletin of Volcanology*, *Journal of Quaternary Science*, *Journal of Paleolimnology*, *Anthropocene*, *The Depositional Record*, *The Holocene*, *Quaternary Science Reviews*, *Applied Spectroscopy*. Grant proposals: Polish National Science Center
- 2023-2024 **Organizing Committee**, Climate Geochemistry Seminar Series, Max Planck Institute for Chemistry
- 2022-2024 **Regional Representative**, PAGES Early Career Network
- 2022 **Session convener**, "Understanding natural hazards in sedimentological records/Varves as archives of environmental change", 21st International Sedimentological Congress (online)
- 2018-2019 **Board Member**, Climate Science Student Council, University of Bern

Scientific outreach

- 2025 **Volunteer**, Tri-Valley Innovation Fair, Pleasanton, CA, USA
- 2024 **Guest Lecture**, "Weather and Climate", Strothoff International School, Dreieich, Germany
- 2020 **"A "Paleo" Perspective on Open Science"**. Bern Open Science Blog, Universitätsbibliothek Bern, <https://doi.org/10.48620/85010>.
- 2018 **Guest Lecture** on Climate Change, International School of Berne, Gümligen, Switzerland
- 2016 **Guest Lecture** on Climate Change, Sunrise Elementary, Tucson, AZ, USA

Professional development and workshops

- 2022 **4th PAGES Young Scientists Meeting**
- 2022 **LinkedEarth geoChronR** online hackathon
- 2020 **Practical application of lake and catchment phosphorous models**. University of Bern, Switzerland
- 2019 **18th Swiss Climate Summer School 2019**. Carbon and climate in the Paris world: getting out of the fossil fuel carbon budget crunch. Ascona, Switzerland
- 2019 **18th OCCR Young Researchers Meeting**: Scientific Excellence for Climate Sciences. Aeschi, Switzerland
- 2018 **17th Swiss Climate Summer School 2018**. Earth system variability through time. Grindelwald, Switzerland
- 2018 **17th OCCR Young Researchers Meeting**: Climate action for Climate Scientists. Aeschi, Switzerland
- 2018 **Getting started with 'R' – analysing and visualising your statistical data**, University of Bern, Switzerland
- 2017 **Bern Workshop on ¹⁴C Analyses with the Mini-Carbon Dating System**, Bern, Switzerland
- 2013 **Seminar in College Teaching**, Northern Arizona University
- 2011 **Arctic Field Risk Awareness**, CH2M HILL Polar Services, Boulder, Colorado, USA

Relevant skills

Fieldwork: Lake sediment and water sampling, geologic mapping, bathymetric surveys, soil and sediment stratigraphy. I have retrieved lake sediment cores from 12 sites in Alaska, Poland and Switzerland (UWITEC gravity corer, piston corer, Livingston corer). Soil coring using hand auger and percussion hammer soil corer.

Laboratory: Sediment core description, loss-on-ignition, CNS elemental analysis, accelerated solvent extractor, organic and inorganic sequential chemical extractions, radiocarbon sample preparation, tephra sample preparation, UV-VIS spectrophotometer, hyperspectral imaging core-scanning, x-ray fluorescence scanning, multi-sensor core logger, magnetic susceptibility, HPLC-MS/CAD/UV-VIS, GC-FID/MS/IRMS, particle size analyzer, scanning electron microscopy, Picarro cavity ring-down spectroscopy

Software: **Proficient** - R, ENVI, OxCal, Inkscape, Coorecorder, MS Office. **Some experience** - Matlab, Python, ArcGIS, Adobe Illustrator, Photoshop, GIMP, SAS JMP, IDL

Languages: English (native), German (B1)