

# DEBORAH KHIDER

## PERSONAL INFORMATION

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*email* [khider@usc.edu](mailto:khider@usc.edu)  
*website* <https://www.isi.edu/people/dkhider/>  
*phone* +1 (310) 448 8460

## EDUCATION

*PhD* 2006–2011 University of Southern California  
GPA: 4.0 · Ocean Sciences  
Thesis: *Paleoceanography of the Indonesian Seas over the last 25,000 years*  
Advisors: Dr. Lowell D. STOTT & Dr. Julien EMILE-GEAY

*Bachelor of Science* 2004–2006 University of Southern California  
GPA: 3.82 · Environmental Engineering  
Graduated *Magna cum laude*, Presidential Scholar

*Bachelor of Science* 2001–2005 Hawaii Pacific University  
GPA: 3.93 · Oceanography and Applied Mathematics  
Graduated *Magna cum laude*

## RESEARCH EXPERIENCE

*University of Southern California* 2021– Research Lead, INFORMATION SCIENCES INSTITUTE  
Research focused on using artificial intelligence in the (paleo)geosciences

2020–2021 Research Scientist, INFORMATION SCIENCES INSTITUTE  
Research focused on using artificial intelligence in the (paleo)geosciences

2018–2020 Data Scientist, INFORMATION SCIENCES INSTITUTE  
Research focused on using artificial intelligence in the (paleo)geosciences

2018 Postdoctoral Scholar, INFORMATION SCIENCES INSTITUTE  
MINT: Model Integration through Knowledge-Rich Data and Process Composition  
Supervisor: Dr. Yolanda GIL

2016–2017 Postdoctoral Scholar, EARTH SCIENCES  
LinkedEarth: Crowdsourcing data curation and standards development in paleoclimatology.  
Supervisor: Dr. Julien EMILE-GEAY

University Of  
California, Santa  
Barbara

2013–2015 Postdoctoral Scholar, EARTH SCIENCES  
Probabilistic age modeling of paleoceanographic data.  
Supervisor: Dr. Lorraine LISIECKI

The University of  
Texas at Austin

2011–2013 Postdoctoral Fellow, INSTITUTE FOR GEOPHYSICS  
Uncertainty quantification of paleoclimatic records and forward modeling of climate proxies using Bayesian Inference.  
Supervisors: Dr. Charles JACKSON and Dr. Terrence M. QUINN

#### TEACHING EXPERIENCE

University Of  
Southern  
California

2019-present Lecturer, DATA SCIENCE  
DSCI549: Introduction to Computational Thinking and Data Science  
DSCI560: Data Science Professional Practicum

University Of  
Utah

2016-2021 Guest Lecturer, SPATIAL SHORT COURSE  
Lecture on Data Management in the geosciences.

FORCE11  
Summer Course

2019 Lecturer  
The scientific paper of the future

University Of  
California, Santa  
Barbara

Fall 2015 Lecturer, EARTH SCIENCES  
EARTH130 – Global Warming: Science and Society.  
Introduction to the scientific and societal issues surrounding global climate change.

#### PUBLICATION RECORD

Journal Articles

Tems, C., W. Berelson, A. van Geen, Y. Hamann, E. Tappa, **D. Khider**. (submitted). Assessing Regional Variability in the Eastern Tropical North Pacific Oxygen Minimum Zone through a Geochemical Comparison of Soledad Basin and Pescadero Slope Sediments. *Paleoceanography and Paleoclimatology*.

Manety, S., **D. Khider**, Heiser, C., McKay, N., Emile-Geay, J., Rouston, C. (submitted). PaleoRec: A sequential recommender system for the annotation of paleoclimate datasets. *Environmental Data Science*.

Gil, Y., D. Garijo, **D. Khider**, C. Knoblock, V. Ratnakar, M. Osorio, H. Vargas, M. Pham, J. Pujara, B. Shbita, B. Vu, Y.-Y. Chiang, D. Feldman, Y. Lin, H. Song, V. Kumar, A. Khandelwal, M. Steinbach, K. Tayal, S. Xu, S.A. Pierce, L. Pearson, D. Hardesty-Lewis, E. Deelman, R. Ferreira da Silva, R. Mayani, A. R. Kemanian, Y. Shi, L. Leonard, S. Peckham, M. Stoica, K. Cobourn, Z. Zhang, C. Duffy, L. Shu. (2021) Artificial Intelligence for modeling complex systems: taming the complexity of expert models to improve decision making. *The ACM Transactions on Interactive Intelligent Systems*, 11, 2, 1-49, doi: 10.1145/3453172.

McKay, N., J. Emile-Geay, **D. Khider**. (2021) GeoChronR - an R package to model, analyze, and visualize age-uncertain paleoscientific data. *Geochronology*, 3, 149-169, doi: 10.5194/gchron-3-149-2021.

Kaufman, D.; McKay, N.; Routson, C.; Erb, M.; Davis, B.; Heiri, O.; Jaccard, S.; Tierney, J.; Dätwyler, C.; Axford, Y.; Brussel, T.; Cartapanis, O.; Chase, B.; Dawson, A.; de Vernal, A.; Engels, S.; Jonkers, L.; Marsicek, J.; Moffa-Sánchez, P.; Morrill, C.; Orsi, A.; Rehfeld, K.; Saunders, K.; Sommer, P. S.; Thomas, E.; Tonello, M.; Tóth, M.; Vachula, R.; Andreev, A.; Bertrand, S.; Biskaborn, B.; Bringué, M.; Brooks, S.; Caniupán, M.; Chevalier, M.; Cwynar, L.; Emile-Geay, J.; Fegyveresi, J.; Feurdean, A.; Finsinger, W.; Fortin, M.; Foster, L.; Fox, M.; Gajewski, K.; Grosjean, M.; Hausmann, S.; Heinrichs, M.; Holmes, N.; Ilyashuk, B.; Ilyashuk, E.; Juggins, S.; **Khider, D.**; Koinig, K.; Langdon, P.; Larocque-Tobler, I.; Li, J.; Lotter, A.; Luoto, T.; Mackay, A.; Magyari, E.; Malevich, S.; Mark, B.; Massafiero, J.; Montade, V.; Nazarova, L.; Novenko, E.; Pařil, P.; Pearson, E.; Peros, M.; Pienitz, R.; Płóciennik, M.; Porinchu, D.; Potito, A.; Rees, A.; Reinemann, S.; Roberts, S.; Rolland, N.; Salonen, S.; Self, A.; Seppä, H.; Shala, S.; St-Jacques, J.; Stenni, B.; Syrykh, L.; Tarrats, P.; Taylor, K.; van den Bos, V.; Velle, G.; Wahl, E.; Walker, I.; Wilmshurst, J.; Zhang, E.; and Zhilich, S. (2020). A global database of Holocene paleotemperature records. *Scientific Data*, 7(1): 115.

**Khider, D.**, J. Emile-Geay, N.P. McKay, Y. Gil, D. Garijo, V. Ratnakar, M. Alonso-Garcia, S. Bertrand, O. Bothe, P. Brewer, A. Bunn, M. Chevalier, L. Comas-Bru, A. Csank, E. Dassie, K. DeLong, T. Felis, P. Francus, A. Frappier, W. Gray, S. Goring, L. Jonkers, M. Kahle, D. Kaufman, N. M. Kehrwald, B. Martrat, H. McGregor, J. Richey, A. Schmittner, N. Scroxton, E. Sutherland, K. Thirumalai, K. Allen, F. Arnaud, Y. Axford, T. T. Barrows, L. Bazin, S.E. Pilaar Birch, E. Bradley, J. Bregy, E. Capron, O. Cartapanis, H.-W. Chiang, K. M. Cobb, M. Debret, R. Dommmain, J. Du, K. Dyez, S. Emerick, M. P. Erb, G. Falster, W. Finsinger, D. Fortier, Nicolas Gauthier, S. George, E. Grimm, J. Hertzberg, F. Hibbert, A. Hillman, W. Hobbs, M. Huber, A.L.C. Hughes, S. Jaccard, J. Ruan, M. Kienast, B. Konecky, G. Le Roux, V. Lyubchich, V.F. Novello, L. Olaka, J.W. Partin, C. Pearce, S.J. Phipps, C. Pignol, N. Piotrowska, M.-S. Poli, A. Prokopenko, F. Schwanck, C. Stepanek, G. E. A. Swann, R. Telford, E. Thomas, Z. Thomas, S. Truebe, L. von Gunten, A. Waite, N. Weitzel, B. Wilhelm, J. Williams, J.J. Williams, M. Winstrup, N. Zhao, Y. Zhou (2019). PaCTS 1.0: A Crowdsourced Reporting Standard for Paleoclimate Data. *Paleoceanography and Paleoclimatology*, doi:10.1002/2019PA003632.

Zhu, F., J. Emile-Geay, T.R. Ault, N. McKay, G. Hakim, **D. Khider**, E.J. Steig, S. Dee, J.W. Kirchner. (2019) Climate models can correctly simulate the continuum of temperature variability. *Proceedings of the National Academy of Sciences of the United States of America*. doi:10.1073/pnas.1809959116.

Richey, J., K. Thirumalai, **D.Khider**, C. Reynolds, J. Partin, T. Quinn. (2019) Considerations for *Globigerinoides ruber* (white and pink) paleoceanography in the Atlantic Ocean: comprehensive insights from a long-running sediment trap. *Paleoceanography and Paleoclimatology*. doi:10.1029/2018PA03417.

**Khider, D.**, S. Ahn, L. Lisiecki, C. Lawrence, M. Kienast. (2017) The role of uncertainty in estimating lead/lag relationships in marine sedimentary archives: A case study from the tropical Pacific. *Paleoceanography*. doi:10.1002/2016PA003057.

Ahn, S., **D. Khider**, L. Lisiecki, C. Lawrence. (2017) A probabilistic Pliocene-Pleistocene stack of benthic  $\delta^{18}\text{O}$  using a profile hidden Markov model. *Dynamics and Statistics of the Climate System*. doi:10.1093/climsys/dzx002.

Tems, C., W. Berelson, R. Thunell, E. Tappa, X. Xu, **D. Khider**, S. Lund, O. Gonzalez-Yajimovich. (2016) Sedimentary  $\delta^{15}\text{N}$  reveal decadal fluctuations in the intensity of the eastern tropical north Pacific oxygen minimum zone during the last 1200 years. *Paleoceanography*. doi:10.1002/2015PA002904.

**Khider, D.**, G. Huerta, C. Jackson, L. Stott, J. Emile-Geay. (2015). A Bayesian, multivariate regression for *Globigerinoides ruber* Mg/Ca. *Geochemistry, Geophysics, Geosystems*. doi:10.1002/2015GC005844

Lin, L., **D. Khider**, L. Lisiecki, C. Lawrence. (2014). Probabilistic sequence alignment of stratigraphic records. *Paleoceanography*. doi:10.1002/2014PA002713

**Khider, D.**, C. Jackson, L. Stott. (2014). Assessing millennial-scale variability during the Holocene: a western tropical Pacific perspective. *Paleoceanography*. doi:10.1002/2013PA002534

Peer-Reviewed  
Conference Papers

**Khider, D.**, L. Stott, J. Emile-Geay, R. Thunell, D. Hammond. (2011). Assessing El Niño Southern Oscillation variability during the past millennium. *Paleoceanography*. doi:10.1029/2011PA002139

Reuter, J., L. Stott, **D. Khider**, A. Sinha, H. Cheng, R. Edwards. (2009). A new perspective on the hydroclimate variability in northern South America during the Little Ice Age. *Geophysical Research Letters*. doi:10.1002/2009GL041051

Garijo, D., **D. Khider**, V. Ratnakar, Y. Gil, E. Deelman, R.F. da Silva, C. Knoblock, Y. Chiang, M. Pham, J. Pujara, B. Vu, D. Feldman, R. Mayani, K. Cobourn, C. Duffy, A. Kemanian, L. Shu, V. Kumar, A. Khandelwal, A., K. Tayal, S. Peckham, M. Stoica, A. Dabrowski, D. Hardesty-Lewis, S. Pierce. An intelligent interface for Integrating Climate, Hydrology, Agriculture, and Socioeconomic models. *Proceedings of the 24th International Conference on Intelligent User Interfaces: Companion, of IUI '19*.

Gil, Y., K. Cobourn, E. Deelman, C. Duffy, R. Ferreira da Silva, A. Kemanian, C. Knoblock, V. Kumar, S. Peckham, L. Carvalho, Y.-Y. Chiang, D. Garijo, **D. Khider**, A. Khandelwal, M. Pahm, J. Pujara, V. Ratnakar, M. Stoica, B. Vu. (2018) MINT: Model Integration Through Knowledge-Powered Data and Process Composition. *Proceedings of Modelling for Sustainable Food-Energy-Water Systems: 9th International Congress on Environmental Modelling and Software*.

D. Garijo, **D. Khider**, Y. Gil, L. Carvalho, B. Essawy, S. Pierce, D. H. Lewis, V. Ratnakar, S. Peckham, C. Duffy, J. Goodall. (2018) A semantic model catalog to support composition and reuse. *Proceedings of Modelling for Sustainable Food-Energy-Water Systems: 9th International Congress on Environmental Modelling and Software*.

Gil, Y., D. Garijo, V. Ratnakar, **D. Khider**, J. Emile-Geay, N. McKay. (2017). A controlled crowdsourcing approach for practical ontology extensions and metadata annotations. In d'Amato C. et al. (eds) *The Semantic Web - ISWC2017*. *ISWC2017*. Lecture Notes in Computer Science, vol 10588. Springer, Cham.

Articles in  
Refereed  
Workshops

**Khider, D.** P. Athreya, V. Ratnakar, Y. Gil, F. Zhu, M. Kwan, and J. Emile-Geay. 2020. Towards Automating Time Series Analysis for Paleogeosciences. *In MileTS '20: 6th KDD Workshop on Mining and Learning from Time Series*, August 24th, 2020, San Diego, California, USA. ACM, New York, NY, USA, 6 pages

**Khider, D.**, L. Stott, R. Saikku, J. Partin, C. Jackson, D. Hammond, A. Newton, R. Thunell. (2013). How unusual is the 20<sup>th</sup> century within the Indo-Pacific Warm Pool? *The Third International Workshop on Climate Informatics*, Boulder, CO.

Conference  
Abstracts

**Khider, D.** (2020). AI in the paleogeosciences: progress, challenges, and opportunities. *AGU Fall Meeting* (Invited)

**Khider, D.**, F. Zhu, Y. Gil (2019). autoTS: Automated Machine Learning for Time Series Analysis. *AGU Fall Meeting*, San Francisco, CA.

**Khider, D.** et al. (2019) MINT: An intelligent interface for understanding the impacts of climate change on hydrological, agricultural and economic systems. *AGU Fall Meeting*, San Francisco, CA.

**Khider, D.**, Y. Gil. (2018). AI in geosciences: progress, challenges, and opportunities. *AGU Fall Meeting*, Washington, D.C. (Invited)

**Khider, D.**, N. McKay, J. Emile-Geay, D. Garijo, Y. Gil, V. Ratnakar. (2018). Supporting paleoclimate research with the FAIR principle: lessons from LinkedEarth. *AGU Fall Meeting*, Washington, D.C.

Zhu, F., J. Emile-Geay, T. Ault, N. McKay, G.J. Hakim, **D. Khider**, E.J. Steig, S. Dee, J.W. Kirchner. (2018) Climate models can correctly simulate the continuum of temperature variability. *AGU Fall Meeting*, Washington, D.C.

- Garijo, D., Y. Gil, K.M. Cobourn, E. Deelman, C. Duffy, R. Ferreira de Silve, A. Kermanian, C. Knolblock, V. Kumar, S. Peckham, Y.-Y. Chiang, **D. Khider**, A. Khandelwal, J. Pujara, V. Ratnakar, M. Stoica, M. Pham, B. Vu. (2018) Integrating models through knowledge-powered data and process composition. *AGU Fall Meeting*, Washington, D.C.
- McKay, N, J. Emile-Geay, **D. Khider**. (2018) Scientific workflows, reproducibility and uncertainty quantification in the paleogeosciences. *AGU Fall Meeting*, Washington, D.C.
- Khider, D.**, J. Emile-Geay, N. McKay, D. Garijo, Y. Gil, V. Ratnakar (2018). LinkedEarth: Supporting paleoclimate research with crowdsourced ontologies, software, and data standards. *EarthCube All Hands Meeting, Washington, D.C.*
- Khider, D.**, J. Emile-Geay, N. McKay, D. Garijo, V. Ratnakar, Y. Gil, F. Zhu (2017). LinkedEarth and 21<sup>st</sup> century paleoclimatology: reducing data friction through standard development. *AGU Fall Meeting*, New Orleans, LA. Abstract IN32A-03 (Invited)
- Khider, D.**, J. Emile-Geay, N. McKay, C.S. Jackson, C. Rouston (2016). Testing the Millennial-Scale Holocene Solar-Climate Connection in the Indo-Pacific Warm Pool. *AGU Fall Meeting*, San Francisco, CA. Abstract PP43A-2309.
- L.E. Lisiecki, S. Ahn, G. Gebbie, A.M. Jones, **D. Khider**, C. Lawrence. (2016). Incorporating the effects of age uncertainty derived from benthic  $\delta^{18}\text{O}$  alignment into paleoceanographic data compilations. *AGU Fall Meeting*, San Francisco, CA. Abstract PP33D-04.
- Khider, D.**, D. Garijo, J. Emile-Geay, Y. Gil, N. McKay, V. Ratnakar. (2016). The future of past climates: LinkedEarth and 21<sup>st</sup> century paleoclimatology. *SciDataCon*.
- Khider, D.**, J. Emile-Geay, N. McKay, L. von Gunten, D. Kauffman. (2016). PAGES2k: data crowd-curation for collaborative paleoscience. *SciDataCon*.
- Tems, C., W. Berelson, R. Thunell, E. Tappa, X. Xu, **D. Khider**, S. Lund, O. Gonzalez-Yajimovich. (2016). High-frequency fluctuations in the eastern tropical North Pacific oxygen minimum zone during the last 1200 years. *AGU Ocean Sciences meetint*, Abstract PC51A-03.
- Khider, D.**, S. Ahn, L. Lisiecki, C. Lawrence, M. Kienast. (2015). On the timing of glacial terminations in the equatorial Pacific. *AGU Fall Meeting*, San Francisco, CA. Abstract PP53C-2365.
- Lisiecki, L., S. Ahn, **D. Khider**, C. Lawrence. (2015). Probabilistic Stack of Plio-Pleistocene benthic  $\delta^{18}\text{O}$  records constructed using profile hidden Markov models. *AGU Fall Meeting*, San Francisco, CA. Abstract PP13D-07.
- Khider, D.**, L. Lisiecki. (2014). Statistical constraints on the relative link between eccentricity forcing and the 100,000-year glacial cycle. *AGU Fall Meeting*, San Francisco, CA. Abstract PP41D-1436.
- Stott, L., **D. Khider**, C. Jackson, G. Huerta. (2014). What forced Holocene millennial-scale variability? A tale from the Western Tropical Pacific. *AGU Fall Meeting*, San Francisco, CA. Abstract PP41C-1379 (Presenting Author).
- Khider, D.**, L. Stott, R. Saikku, J. Partin, C. Jackson, D. Hammond, A. Newton, R. Thunell. (2013). How unusual is the 20<sup>th</sup> century within the Indo-Pacific Warm Pool? *AGU Fall Meeting*, San Francisco, CA. Abstract PP42A-03.
- Khider, D.**, T. Quinn, C. Reynolds. (2012). Assessing the temperature variability from Mg/Ca and  $\delta^{18}\text{O}$  in *Globigerinoides ruber* from the Northern Gulf of Mexico. *AGU Fall Meeting*, San Francisco, CA. Abstract PP43A-2008.
- Reuter, J., L. Stott, **D. Khider**. (2012). Middle East Rainfall Variability during the Common Era. *AGU Fall Meeting*, San Francisco, CA. Abstract PP21B-1992.
- Khider, D.**, L. Stott, R. Saikku, D. Hammond. (2011). Evidence for a Bipolar Seesaw during the Late Holocene. *AGU Fall Meeting*, San Francisco, CA. Abstract PP34A-02.
- Khider D.**, L. Stott, J. Emile-Geay, R. Thunell (2010). Assessing ENSO over the past millennium: a western tropical Pacific perspective. *AGU Fall Meeting*, San Francisco, CA. Abstract PP51B-05.

**Khider, D.**, L. Stott, J. Emile-Geay, R. Thunell (2010). Has El Niño changed over the past millennium? *Graduate Climate Conference*, Seattle, WA.

**Khider, D.**, L. Stott, J. Emile-Geay, R. Thunell (2010). A history of ENSO variability over the past millennium as told by a marine sediment core from the western tropical Pacific. *10th International Conference on Paleoceanography*, La Jolla, CA.

**Khider, D.**, L. Stott, J. Emile-Geay, R. Thunell (2009). Inter- and intrannual variability in the production of planktonic foraminifera: implications for ENSO reconstruction based on the oxygen isotope distribution of individuals. *AGU Fall Meeting*, San Francisco, CA. Abstract PP13D-1434.

#### INVITED TALKS

- 2021 AI in the paleogeosciences: Progress, Challenges, and Opportunities  
*PaleoPercs*
- AI in the paleogeosciences: Progress, Challenges, and Opportunities  
*Department of Earth Sciences, University of Southern California.*
- 2020 AI in the paleogeosciences: Progress, Challenges, and Opportunities  
*IS-GEO*
- AI in the paleogeosciences: Progress, Challenges, and Opportunities  
*Artificial Intelligence Division, Information Sciences Institute, University of Southern California.*
- 2017 Testing the Millennial-Scale Holocene Solar-Climate Connection in the Indo-Pacific Warm Pool.  
*Department of Earth Sciences, University of Southern California.*
- The future of past climates: LinkedEarth and 21<sup>st</sup> century paleoclimatology.  
*Department of Earth Science Speaker's Club, University of California, Santa Barbara. EarthCube Lecture*
- The future of past climates: LinkedEarth and 21<sup>st</sup> century paleoclimatology.  
*Department of Earth Science, California State University, Bakersfield. EarthCube Lecture*
- The future of past climates: EarthCube and 21<sup>st</sup> century paleoclimatology.  
*Department of Earth, Environmental, and Planetary Sciences, Brown University. EarthCube Lecture*
- 2016 The future of past climates: LinkedEarth and 21<sup>st</sup> century paleoclimatology.  
*College of Earth, Ocean, and Atmospheric Sciences, Oregon State University. EarthCube Lecture*
- The future of past climates: LinkedEarth and 21<sup>st</sup> century paleoclimatology.  
*Institute for Geophysics Seminar, The University of Texas at Austin. EarthCube Lecture*
- The future of past climates: LinkedEarth and 21<sup>st</sup> century paleoclimatology.  
*Department of Earth Sciences Paleoenvironmental Seminar, University of Southern California.*
- 2015 Probabilistic timing of glacial terminations in the Tropical Pacific.  
*Department of Earth Sciences Paleoenvironmental Seminar, University of Southern California*
- 2014 How unusual is the 20<sup>th</sup> century within the Indo-Pacific Warm Pool?  
*Department of Earth Science Speaker's Club, University of California, Santa Barbara*
- Assessing millennial-scale variability during the Holocene: a western tropical Pacific perspective.  
*Department of Geography Climate Research seminar, University of California, Santa Barbara*
- Assessing millennial-scale variability during the Holocene: a western tropical Pacific perspective.  
*Interdepartmental graduate program in Marine Science seminar, University of California, Santa Barbara*

- 2011 Evidence for a Bipolar Seesaw over the Holocene.  
*Institute for Geophysics Seminar, The University of Texas at Austin*
- 2010 Effect of salinity on foraminiferal Mg/Ca: Paleoceanographic implications.  
*Department of Earth Sciences Paleoenvironmental Seminar, University of Southern California*
- Is El Niño changing? A perspective from the Indonesian Seas.  
*Department of Earth Sciences Paleoenvironmental Seminar, University of Southern California*
- 2008 How unusual is the 20<sup>th</sup> century?  
*Department of Earth Sciences Paleoenvironmental Seminar, University of Southern California*

#### SYNERGISTIC ACTIVITIES

- Workshops Participation*
- 2021 · National Academies Workshop: Identifying New Community-Driven Science Themes for NSF's Support for Paleoclimate Research.
- 2021 · PaleoHack - Organizer
- 2017 · PAGES OC3.  
*Oregon State University, Corvallis, OR.*
- 2016-2017 · GeoChronR - Organizer.  
*Northern Arizona University, Flagstaff, AZ.*
- 2016 · Workshop on Paleoclimate Data Standards.  
*NOAA, Boulder, CO.*
- 2015 · Expert Witness Training Academy: Effectively Communicating Science.  
*William Mitchell College of Law, St Paul, MN.*
- 2013 · PMIP Ocean Workshop 2013: Understanding changes since the Last Glacial Maximum.  
*Corvallis, OR.*
- 2013 · PAGES COMPARE Workshop: LGM sea surface temperatures.  
*Corvallis, OR.*
- 2010 · ENSO variability workshop.  
*Scripps Institution of Oceanography, University of California San Diego, San Diego, CA.*
- Reviewer*
- Science, Nature, Nature Communications, Nature Geoscience, Geology, Geophysical Research Letters, Paleoceanography, Marine Micropaleontology, Palaeogeography Palaeoclimatology Palaeoecology, Journal of Geophysical Research-Oceans, Geochemistry Geophysics Geosystems, Climate of the Past, Quaternary Science Reviews, Journal of Climate.
- Community Service*
- 2019-2020 · Organizing Committee, *EarthCube Annual Meeting*
- 2019-2020 · Organizing Committee, Datafest Events, *USC Center for Knowledge-Powered Interdisciplinary Data Science*
- 2014 · Session convener and chair, *AGU Fall Meeting*
- 2012-2013 · Judge, Outstanding Student Paper Awards, *AGU Fall Meeting*
- 2011 · Organizer, USC Paleoenvironmental Seminar Series
- 2010 · Wrigley Institute Summer Outreach Program

#### FUNDING

- 2021 EarthCube Capabilities: PaleoCube: Enabling Cloud-Based Paleoclimatology- National Science

Foundation, EarthCube

- 2020 Collaborative Research: A Big Data Approach to Fundamental Paleoclimate Questions - National Science Foundation, Paleo Perspective on Climate Change
- Collaborative Research: PReSto: A Paleoclimate Reconstruction Storehouse to Broaden Access and Accelerate Scientific Inference - National Science Foundation, Geoinformatics

#### AWARDS

- 2014-2015 Editor's citation for contribution in refereeing for *Nature*
- 2011-2013 UTIG Postdoctoral Fellowship
- 2011 USC Final Summer Dissertation Fellowship
- 2010 USC Earth Science Departmental Teaching Assistant Award (Geochemistry)
- USC Wrigley-Sonosky Fellowship
- 1<sup>st</sup> Place USC GPSS Poster Symposium
- WISE Award for nomination as Merit PhD candidate
- USC Department of Earth Science Graduate Research Grant

#### PROFESSIONAL AFFILIATIONS

- 2007-present Member of the American Geophysical Union
- 2018-2020 Member of the International Environmental Modelling and Software Society