

## CURRICULUM VITAE

**Joseph Daniel Ortiz**, PROFESSOR; US citizen

Department of Geology, Kent State University, Kent OH, 44242, U.S.A.

### Appointments:

Professor, Kent State University, Sept 2011-present  
Associate Professor, Kent State University, Sept 2005- Aug 2011  
Assistant Professor, Kent State University, Aug 2001-2005  
Associate Research Scientist, L-DEO, Columbia University, July 1998- Aug, 2001  
Adjunct Assistant Professor, Barnard College, Sept 2000-Dec 2000.  
Visiting Assistant Professor (part time), Wesleyan University, December 1999-May 2000

### Degrees:

Brown University (Providence, RI), Major: Aquatic Biology Honors, B.S. with honors, 1988  
Oregon State University (Corvallis, OR), Major: Marine Geology, Ph.D., Oceanography, 1995  
L-DEO, Columbia University (Palisades, NY), Postdoctoral Research Scientist, Geochemistry, 1996 - 1998

### Research Narrative:

Joseph D. Ortiz employs multivariate statistical methods and time series analysis to study Earth processes related to paleoclimate and climate change on various time scales, sedimentary geology, such as paleotsunamis deposits and modern surficial processes such as environmental remote sensing of harmful algal blooms and productivity in coastal and inland waters.

### Key Publications:

Judice, T., Widder, E.A., Falls, W.H., Avouris, D.M., Cristiano, D.J., & Ortiz, J.D. Field-validated detection of *Aureocymbra lagunensis* brown tide blooms in the Indian River Lagoon, Florida using Sentinel-3A OLCI and ground-based hyperspectral spectroradiometers, *GeoHealth*, 2020. <https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2019GH000238>

Maselli, V., Oppo, D., Moore, A.L., Gusman, A.R., Mtelela, C., Iacopini, D., Taviani, M., Mjema, E., Mulaya, E. Che, M.m Tomioka, A.L., Mshiu, E., and **Ortiz, J.D.**, A 1,000-year-old tsunami in the Indian Ocean points to greater risk for East Africa, *GEOLOGY*, 48, 2020. <https://doi.org/10.1130/G47257.1>

**Ortiz, J.D.**, Palaeoclimate: ancient ice sheet collapse, *Nature Geoscience*, volume 13, 328–329, 2020. <https://www.nature.com/articles/s41561-020-0572-7>

**Ortiz, J.D.**, D. Avouris, S. Schiller, J.C. Luvall, J.D. Lekki, R.P. Tokars, R.C. Anderson, R. Shuchman, M. Sayers, and R. Becker, Evaluating visible derivative spectroscopy by varimax-rotated, principal component analysis of aerial hyperspectral images from the western basin of Lake Erie, *Journal of Great Lakes Research*, Volume 45, Issue 3, June 2019, Pages 522-535, 2019, <https://doi.org/10.1016/j.jglr.2019.03.005>.

Avouris, D.M. and **Ortiz, J.D.** Validation of 2015 Lake Erie MODIS image spectral decomposition using visible derivative spectroscopy and field campaign data, *Journal of Great Lakes Research*, Volume 45, Issue 3, June 2019, Pages 466-479, 2019, <https://doi.org/10.1016/j.jglr.2019.02.005>.

**Ortiz, J.D.**, D. Avouris, S. Schiller, J. Luvall, J. Lekki, R.P. Tokars, R.C. Anderson, R. Shuchman, M. Sayers, and R. Becker, Intercomparison of Approaches to the Empirical Line Method for Vicarious Hyperspectral Reflectance Calibration, *Front. Mar. Sci.*, vol. 4, 14 September 2017, <https://doi.org/10.3389/fmars.2017.00296>

Darby, D.A., **J.D. Ortiz**, C. E. Grosch, S. P. Lund, 2012, 1,500 year cycle in the Arctic Oscillation identified in Holocene Arctic sea-ice drift, *Nature Geosci.*, 5, 897–900, Advance

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Online Publication: 11/11/2012, (doi: 10.1038/NGEO1629).

- Nelson, D.B., Abbott, M.B., Steinman, B., Polissar, P.J. Stansell, N.D., **Ortiz, J.D.**, Rosenmeier, M.F., Finney, B.P., and Riedel, J., 2011, Drought variability in the Pacific Northwest from a 6,000-yr lake sediment record, *PNAS*, <http://www.pnas.org/content/108/10/3870.abstract>
- Marchitto, T.M., Muscheler, R., **Ortiz, J.D.**, Carriquiry, J., and A. van Geen, 2010, Dynamical response of the tropical Pacific Ocean to solar forcing during the early Holocene, *Science*, 330, 1378-1381, DOI: 10.1126/science.1194887
- Marchitto, T.M., Lehman, S.J., **Ortiz, J.D.**, Fluckinger, J., and A. van Geen, Marine radiocarbon evidence for the mechanism of deglacial atmospheric CO<sub>2</sub> rise (8 June 2007), *Science*, 316 (5830), 1456. [DOI: 10.1126/science.1138679] (<http://science.sciencemag.org/content/early/2007/05/10/science.1138679>).
- deMenocal, P., **Ortiz, J.D.**, Guilderson, T., and M. Sarnthein, Coherent high- and low-latitude Climate Variability during the Holocene Warm Period, *Science*, 288, 2198-2202, 2000.
- Ortiz, J.D.**, O'Connell, S., DelViscio, J., Dean, W., Carriquiry, J., Marchitto, T., Zheng, Y., and A. van Geen, Enhanced marine productivity off western North America during warm climate intervals of the past 52 kyr, *GEOLOGY*, 32(6), 521-524, 2004.
- Ortiz, J.D.**, Mix, A., Harris, S., and S. O'Connell, Diffuse spectral reflectance as a proxy for percent carbonate content in North Atlantic sediments, *Paleoceanography*, 14, 171-186, 1999.
- Ortiz, J.D.**, Mix, A.C., Hostetler, S., and M. Kashgarian, The California Current of the Last Glacial Maximum at 42°N: Reconstruction based on multiple proxies, *Paleoceanography*, 12, 191-206, 1997.
- Ortiz, J.D.**, Mix, A.C., Rugh, W., Watkins, J.M., and R.W. Collier, Deep-dwelling planktonic foraminifera of the Northeast Pacific reveal environmental control of oxygen and carbon isotopic disequilibria, *Geochimica et Cosmochimica Acta*, 60, 4509-4523, 1996.
- Ortiz, J.D.**, Mix, A.C., and R.W. Collier, Environmental control of living symbiotic and asymbiotic foraminifera of the California Current, *Paleoceanography*, 10, 987-1009, 1995.

### Honors:

- Kent State University President's Faculty Excellence Award, 2020.
- Kent State University Outstanding Research and Scholarship Award, 2019.
- Fellow, Geological Society of America, 2017.
- NASA Group Achievement Award, Lake Erie Aerial Hyperspectral CyanoHAB Monitoring Team, 2015.
- Semi-Finalist, Alliance for Water Future, Water Quality Innovation Award, 2013.
- Mentoring Excellence Award, KSU Graduate Student Senate, 2007.
- Outstanding Teaching Award, KSU Student Disability Services/Ability Unlimited, 2005.
- Science Magazine Editor's Choice Citation for: Ortiz, et al, *Geology*, 32(6), 521-524, 2004.
- Promoted to full member, Sigma XI, 2003
- American Geophysical Union Editors' Citation: Excellence in Refereeing for *Paleoceanography*, 1998.

### Professional Affiliations

The Geological Society of America (GSA)  
American Geophysical Union (AGU)  
Northeast Ohio Geological Society (NOGS)  
American Quaternary Association (AMQUA)

American Meteorological Society (AMS)  
The Oceanography Society (TOS)  
Sigma Xi (Scientific research honor society)