

CURRICULUM VITAE

Name Chiara Borrelli
Address Department of Earth and Environmental Sciences
University of Rochester
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EDUCATION:

Aug. 2014 Ph.D. in Geology, Rensselaer Polytechnic Institute, Troy, NY, USA.
Dissertation title: “Reconstructing past ocean circulation and chemistry using benthic Foraminifera: traditional and novel approaches”.

Nov. 2009 M.S. in Marine Biology, Polytechnic University of Marche, Ancona, Italy. Thesis title: “Experimental ecology of benthic Foraminifera”.
Final grade: 110\110 cum laude.

Jul. 2007 B.S. in Biological Sciences (Marine Biology and Oceanography), Polytechnic University of Marche, Ancona, Italy. Thesis title: “Foraminifera from the abyssal sediments of the NE Atlantic Ocean: taxonomy, abundance, and biodiversity”. Final grade: 110\110 cum laude.

APPOINTMENTS:

Sep. 2022-present *Assistant Professor*
University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY

Sep. 2016-present *Research Associate, Lecturer*
University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY

Nov. 2021-Dec. 2021 *Visiting Professor*
University of Vienna, Department of Paleontology, Vienna, Austria

Jan. 2019-May 2019 *Visiting Scientist*
CAGE – Centre for the Arctic Gas Hydrate, Environment, and Climate, Tromsø, Norway

Sep. 2014-Aug. 2016 *Postdoctoral Research Associate*
University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY

ADDITIONAL RESEARCH EXPERIENCE:

Jul. 2010-Aug. 2014 *Research Assistant*

Rensselaer Polytechnic Institute, Department of Earth and
Environmental Sciences, Troy, NY

Apr. 2008-Nov. 2009 *Research Assistant*

Polytechnic University of Marche, Department of Sciences of Life and
of the Environment, Ancona, Italy

LIST OF PUBLICATIONS (* indicates graduate student authors; ** indicates undergraduate student authors)

PAPERS:

In preparation

16. **C. Borrelli**, M. E. Katz, and J. R. Toggweiler, Effects of proto-Antarctic Circumpolar Current circulation in the middle to late Eocene.
15. **C. Borrelli** and G. Panieri, Isotope and chemical ($\delta^{18}\text{O}$, $\delta^{13}\text{C}$, Mg/Ca) characterization of the calcareous and (facultative) agglutinated foraminifer *Melonis barleeanus*.

Published and submitted research

14. **C. Borrelli**, M. E. Katz, and J. R. Toggweiler (2021), Middle to late Eocene changes of the ocean carbonate cycle, *Paleoceanography and Paleoclimatology*, 36, e2020PA004168, doi:10.1029/2020PA004168
13. **C. Borrelli**, R. Gabitov, M. C. Liu, A. Hertwig, and G. Panieri (2020), The benthic foraminiferal $\delta^{34}\text{S}$ records intensity and timing of paleo methane fluxes, *Sci. Rep.*, 10, 1304, doi:10.1038/s41598-020-58353-4.
12. P.-A. Dessandier, G. Panieri, **C. Borrelli**, H. Yao*, S. Sauer, and W.-L. Hong (2020), Foraminiferal $\delta^{18}\text{O}$ reveals gas hydrate dissociation in Arctic Ocean sediments, *Geo-Mar. Lett.*, doi:10.1007/s00367-019-00635-6.
11. P.-A. Dessandier, **C. Borrelli**, D. Kalenitchenko, and G. Panieri (2019), Benthic foraminifera in Arctic methane hydrate bearing sediments, *Front. Mar. Sci.*, 6, 765, doi:10.3389/fmars.2019.00765.
10. R. Gabitov, A. Sadekov, V. Yapaskurt, **C. Borrelli**, A. Bychkov, K. Sabourin, and A. Perez-Huerta (2019), Elemental uptake by calcite slowly grown from seawater solution: an in-situ study via depth profiling, *Front. Earth Sci.*, 7, 51, doi:10.3389/feart.2019.00051.
9. R. Gabitov, **C. Borrelli**, J. Buettner, B. Kirkland, A. Skarke, D. Trail, B. Garner, M. Testa, M. Wahidi, C. Hoff*, S. Khasanov, G. Panieri, R. Thirumalai, J. Thomas, J. Weremeichik, and I. Zverkova (2019), Characterization of carbonate crust from a recently discovered methane seep on the North Atlantic continental margin of the USA, *Minerals*, 9(3), 138, doi:10.3390/min9030138.

8. **C. Borrelli**, G. Panieri, T. M. Dahl, and K. Neufeld (2018) Novel biomineralization strategy in calcareous foraminifera, *Sci. Rep.*, 8, 10201, doi:10.1038/s41598-018-28400-2.
7. D. McVeigh, A. Skarke, A. Dekas, **C. Borrelli**, W. Hong, J. Marlow, A. Pasulka, S. Jungbluth, R. Barco, and A. Djurhuus (2018), Characterization of benthic biogeochemistry and ecology at three methane seep sites on the northern US Atlantic margin, *Deep-Sea Res. Pt. II*, 150, 41-56, doi:10.1016/j.dsr2.2018.03.001.
6. **C. Borrelli**, Y. Hou, J. W. Pawlowski, M. Holzmann, M. E. Katz, G. T. Chandler, and S. S. Bowser (2018), Assessing SSU rDNA barcodes in foraminifera: a case study using *Bolivina quadrata*, *J. Eukaryot. Microbiol.*, 65, 220-235, doi:10.1111/jeu.12471.
5. J. Marlow, **C. Borrelli**, S. Jungbluth, C. Hoffman*, J. Marlow, P. Girguis, and the AT-36 Team (2017), Opinion: Telepresence is a potentially transformative tool for field science, *P. Natl. Acad. Sci. USA*, 114(19), 4841-4844, doi:10.1073/pnas.1703514114.
4. S. J. Langton, N. M. Rabideaux*, **C. Borrelli**, and M. E. Katz (2016), Southeastern Atlantic deepwater evolution during the late middle Eocene to earliest Oligocene (ODP Site 1263 and DSDP Site 366), *Geosphere*, 12(3), 1032-1047, doi:10.1130/GES01268.1.
3. **C. Borrelli** and M. E. Katz (2015), Dynamic deep-water circulation in the northwestern Pacific during the Eocene: Evidence from Ocean Drilling Program Site 884 benthic foraminiferal stable isotopes ($\delta^{18}\text{O}$ and $\delta^{13}\text{C}$), *Geosphere*, 11(4), 1204-1255, doi:10.1130/GESO1152.1.
2. **C. Borrelli**, B. S. Cramer, and M. E. Katz (2014), Bipolar Atlantic deepwater circulation in the middle-late Eocene: effects of Southern Ocean gateway openings, *Paleoceanography*, 29(4), 308-327, doi:10.1002/2012PA002444.
1. **C. Borrelli**, A. Sabbatini, G. M. Luna, M. P. Nardelli*, T. Sbaffi*, C. Morigi, R. Danovaro, and A. Negri (2011), Technical Note: Determination of the metabolically active fraction of benthic foraminifera by means of Fluorescent In Situ Hybridization (FISH), *Biogeosciences*, 8, 2075-2088, doi:10.5194/bg-8-2075-2011.

ABSTRACTS:

Invited conference presentations and academic talks

43. **C. Borrelli**, Climate change: (a few) lessons from the Cenozoic, Nazareth College, Department of Chemistry and Biochemistry (invited lecture – Green Energy Conversion course), April 2021.
42. **C. Borrelli**, Reconstruction of ocean circulation and chemistry changes at the onset of the greenhouse-icehouse climatic transition (middle Eocene-early Oligocene), University of Victoria, School of Earth and Ocean Science, February 2020.
41. **C. Borrelli**, M. E. Katz, and J. R. Toggweiler, Variations in the carbonate compensation depth from the middle Eocene to the early Oligocene (43-32 Ma): implications for the marine carbon cycle, Time series analysis, Tromsø (Norway), January 30-February 1 2019.
40. **C. Borrelli**, Ocean reorganization during the greenhouse-icehouse transition: a benthic foraminiferal perspective, University of Maine, School of Earth and Climate Sciences, November 2018.

39. **C. Borrelli**, Using microfossils to investigate ocean circulation changes during the Eocene-Oligocene climatic transition, Nazareth College, Department of Chemistry and Biochemistry (invited lecture – Green Energy Conversion course), November 2018.
38. **C. Borrelli**, Unlocking past ocean circulation and climate changes using benthic foraminifera, Montclair State University, Department of Earth and Environmental Studies, January 2018.
37. **C. Borrelli**, Climate changes in the geological past – a paleoceanographic perspective, Nazareth College, Department of Chemistry and Biochemistry, March 2017.
36. **C. Borrelli**, Ocean circulation changes from the middle Eocene to the early Oligocene: a benthic foraminiferal perspective, Time series analysis in environmental science and applications to climate change, Tromsø (Norway), 8-11 November 2016.
35. **C. Borrelli**, Investigating past ocean circulation and climate using benthic foraminifera: traditional and novel approaches, The Arctic University of Norway Department of Geology, and Centre for Arctic Gas Hydrate, Environment, and Climate, March 2016.
34. **C. Borrelli**, Investigating past ocean circulation and climate using benthic foraminifera: traditional and novel approaches, Binghamton University – The State University of New York, Department of Geological Sciences and Environmental Studies, March 2016.
33. **C. Borrelli**, R. I. Gabitov, S. R. Messenger, A. N. Nguyen, M. Torres, and J. D. Kessler, Investigation of benthic foraminiferal “non-traditional” stable isotopes to reconstruct methane fluxes in sedimentary environments, GSA, Baltimore, 1-4 November 2015.
32. **C. Borrelli**, Application of LA-ICP-MS technology on foraminifera: trace elements as tool for paleoceanographic reconstructions, Rensselaer Polytechnic Institute, Department of Earth and Environmental Sciences (two invited lectures and one invited laboratory session - Applied Micropaleontology course), October 2014.
31. **C. Borrelli**, E. B. Watson, R. Gabitov, J. B. Thomas, M. Ackerson*, D. Trail, D. Ruscitto, and M. E. Katz, Development of a new technique to promote unseeded precipitation of inorganic calcium carbonate crystals from artificial seawater, Goldschmidt, Sacramento, 8-13 June 2014.
30. **C. Borrelli**, Foraminifera: a promising field for interdisciplinary studies, University of Rochester, Department of Earth and Environmental Sciences, May 2013.

Submitted abstracts

29. Coggon, R., Sylvan, J., Teagle, D., Reece, J., & The South Atlantic Transect IODP Expedition 390 & 393 Scientists (including **C. Borrelli**), The South Atlantic Transect: Multidisciplinary Experiments from Ridge Crest to Margin Drilled by Joint IODP Expeditions 390/393, AGU, Chicago, 12-16 December 2022.
28. R. K. Poirier, **C. Borrelli**, M. Fung, M. F. Schaller, and R. Kozdon, Assessing the impact of diagenetic bias on Marine Isotope Stage 3 sea-level reconstructions based on deep-sea benthic foraminiferal stable isotope records, GSA, Denver, 9-12 October 2022.
27. M. Correa-Diaz**, **C. Borrelli**, A. A. Akinselure, C. Argentino, and G. Panieri, Is Svyatogor Ridge a paleo-cold seep?, CAGE International Conference on Methane in a Changing Arctic, Tromsø (Norway), 14-16 September 2022.

26. **C. Borrelli**, R. Gabitov, M. C. Liu, A. Hertwig, and G. Panieri, Reconstructing paleomethane emission using the benthic foraminiferal stable sulfur isotopes, Goldschmidt, Hawaii, 10-15 July 2022.
25. L. Geyer**, **C. Borrelli**, R. K. Poirier, and M. Fung, Using the Foraminiferal Preservation Index to reconstruct ocean circulation in the equatorial Atlantic between Marine Isotopic Stages 2 and 3 (~26-70 kyr), University of Rochester Undergraduate Research Exposition, Rochester, 15 April 2022.
24. R. Gabitov, A. Sadekov, A. Perez-Huerta, **C. Borrelli**, and M. Rezaei, Elemental uptake by individual calcite crystals, Goldschmidt, Hawaii, 10-15 July 2022.
23. M. Robinson**, **C. Borrelli**, C. Argentino, and G. Panieri, Investigating past methane fluxes in sediment from the Barents Sea using the carbon isotopic composition of microfossils, University of Rochester Undergraduate Research Exposition, Rochester, 16 April 2021.
22. **C. Borrelli** and G. Panieri, The isotopic composition of the calcareous and (facultative) agglutinated foraminifer *Melonis barleeanus*, EGU, Vienna (Austria), 7-12 April 2019.
21. **C. Borrelli**, M. E. Katz, and J. R. Toggweiler, Global fluctuations of the carbonate compensation depth during the greenhouse-icehouse transition (43-32 Ma), AGU, Washington, D.C., 10-14 December 2018.
20. R. Gabitov, **C. Borrelli**, A. Cremiere, B. Kirkland, G. Panieri, A. Skarke, M. Testa*, N. Van Hartesveldt*, and M. Wahidi*, Carbonate crust from a recently discovered methane seep along the North Atlantic continental margin of the US: isotopic characterization, 14th International Conference on Gas in Marine Sediments (GIMS 14), Haifa (Israel), 14-20 October 2018.
19. **C. Borrelli** and G. Panieri, *Melonis barleeanus* is a calcareous and (facultative) agglutinated foraminifera, International Symposium on Foraminifera (FORAMS 2018), Edinburgh (United Kingdom), 17-22 June 2018.
18. **C. Borrelli**, Y. Hou, J. W. Pawlowski, M. Holzmann, M. E. Katz, G. T. Chandler, and S. S. Bowser, Testing SSU rDNA barcodes in foraminifera: a case study using *Bolivina quadrata*, International Symposium on Foraminifera (FORAMS 2018), Edinburgh (United Kingdom), 17-22 June 2018.
17. **C. Borrelli** and G. Panieri, Calcareous foraminifera are able to agglutinate sedimentary particles within their test, EGU, Vienna (Austria), 8-13 April 2018.
16. R. I. Gabitov, **C. Borrelli**, J. Buettner, M. Testa*, B. Garner*, J. Weremeichik, J. B. Thomas, M. Wahidi*, R. V. K. G. Thirumalai, B. Kirkland, and A. Skarke, Characterization of carbonate crust from deep-sea methane seeps on the Northern US Atlantic margin, AGU, New Orleans, 11-15 December 2017.
15. **C. Borrelli**, G. Panieri, and T. M. Dahl, The presence of silicate grains in foraminiferal calcite tests suggests a novel biomineralization strategy in foraminifera, Goldschmidt, Paris, 13-18 August 2017.
14. R. I. Gabitov, J. Weremeichik*, **C. Borrelli**, J. L. Mitchell*, B. Garner*, J. B. Thomas, B. Hartenbower*, C. Hoff*, B. Watson, D. Trail, J. Singer, K. Rogers, T. French, and H. Toghiani, Geochemical response of aragonite on pressure and oxygen depletion in seawater: an experimental study, AGU Ocean Sciences Meeting, New Orleans, 21-26 February 2016.
13. J. M. Weremeichik*, **C. Borrelli**, J. Mitchell*, and R. I. Gabitov, Aragonite precipitation under simulated oceanic pressures, GSA, Baltimore, 1-4 November 2015.

12. **C. Borrelli**, B. S. Cramer, M. E. Katz, Ocean circulation in the northwestern Pacific (ODP Site 884) from the middle Eocene to the early Oligocene (45-33 Ma), GSA, Charlotte, 4-7 November 2012.
11. **C. Borrelli**, B. S. Cramer, M. E. Katz, Evidence for increased thermal differentiation in the deep Atlantic in the middle-late Eocene (40-33 Ma), AGU, San Francisco, 5-9 December 2011.
10. M. E. Katz, **C. Borrelli**, B. S. Cramer, N. M. Rabideaux*, J. R. Toggweiler, Impact of Antarctic Circumpolar Current evolution on late middle Eocene to early Oligocene ocean structure, AGU, San Francisco, 5-9 December 2011.
9. J. Williams*, **C. Borrelli**, X. Chen*, B. M. Srain*, K. Hanselmann, W. Berelson, G. Caporaso, M. Coleman, F. A. Corsetti, S. Dawson, H. Johnson, V. Petryshyn*, A. L. Sessions, R. Shapiro, J. R. Spear, B. S. Stevenson, C. H. D. Williamson*, International Geobiology Course, Microbial survival in strongly lithifying hot spring environments, Yellowstone National Park, AGU, San Francisco, 5-9 December 2011.
8. **C. Borrelli**, A. Sabbatini, G. M. Luna, M. P. Nardelli, T. Saffi*, C. Morigi, R. Danovaro, A. Negri, Determination of the metabolically active fraction of benthic foraminifera by means of Fluorescent in situ Hybridization (FISH), GSA, Minneapolis, 9-12 October 2011.
7. **C. Borrelli**, A. Sabbatini, G. M. Luna, C. Morigi, R. Danovaro, A. Negri, Determination of the metabolically active fraction of benthic foraminifera by means of Fluorescent in situ Hybridization (FISH), International Symposium on Foraminifera (FORAMS 2010), Bonn (Germany), 5-10 September 2010.
6. A. Sabbatini, **C. Borrelli**, M. P. Nardelli, C. Morigi, A. Negri, Benthic foraminifera as ecological and biological indicators: a practical approach using experimental cultures and their potential use in coastal monitoring management, FIST, Rimini (Italy), 9-11 September 2009.
5. **C. Borrelli**, A. Sabbatini, C. Morigi, A. Negri, Una nuova prospettiva nel monitoraggio costiero: l'utilizzo dei foraminiferi bentonici come bioindicatori, Ricerca e applicazione di metodologie ecotossicologiche in ambienti marini e salmastri, Viareggio (Italy), 25-26 November 2008.
4. A. Sabbatini, **C. Borrelli**, A. J. Gooday, J. Pawlowski, C. Morigi, A. Negri, Morphological and molecular studies of komokiacean and komokiacean-like foraminifera from the Porcupine Abyssal Plain (NE Atlantic) and Weddell Sea (Southern Ocean), Eighth International Workshop on Agglutinated Foraminifera (IWAFF-8), Cluj-Napoca (Romania), 7-13 September 2008.
3. **C. Borrelli**, A. Sabbatini, C. Morigi, A. Negri, I foraminiferi come indicatori ecologici e biologici: un approccio mediante colture e loro potenziale uso in azioni di monitoraggio costiero, XVIII Congresso della Società Italiana di Ecologia, Parma (Italy), 1-3 September 2008.
2. **C. Borrelli**, A. Sabbatini, A. J. Gooday, C. Morigi, A. Negri, New observations on komokiaceans and other large, soft-bodied Foraminifera from the Porcupine Abyssal Plain (Northeast Atlantic): morphological and molecular implications, HERMES Workshop, Ancona (Italy), 7-10 April 2008.
1. **C. Borrelli**, A. Sabbatini, A. J. Gooday, C. Morigi, A. Negri, I Foraminiferi dei sedimenti abissali dell'Oceano Atlantico nord-orientale: tassonomia, abbondanza, biodiversità, Congresso Congiunto AIOL – SitE, Ancona (Italy), 17-20 September 2007.

PROPOSAL SUBMISSION (BORRELLI AS PI):

National Science Foundation – Marine Geology and Geophysics (2148461): “Collaborative Research: Deep ocean temperature and continental ice volume from benthic foraminiferal test composition, 77 Ma to Present” (ca. \$384,577) (08/2022-07/2025; co-PI: Katz)

PROPOSALS WITH BORRELLI AS COLLABORATOR:

Research Council of Norway: “NORCRUST - Norwegian margin fluid systems and methane-derived carbonate crusts – Recent scientific advances in service of petroleum exploration (Kompetanseprosjekt for næringslivet - PETROMAKS2)” (04/2016-03/2020).

TEACHING EXPERIENCE:

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| Aug.-Dec. 2022 | <i>Instructor.</i> University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EESC 220 Introduction to Geobiology; EESC 391 Topics in Paleoceanography. |
| Feb.-May 2022 | <i>Instructor.</i> University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EESC 100 Introduction to Oceanography; EESC 310(W) Science and Sustainability; EESC 393 Senior Thesis. |
| Aug.-Dec 2021 | <i>Instructor.</i> University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EESC 274/474 Paleoceanography and climate change; EESC 391 Topics in Paleoceanography. |
| Nov.-Dec. 2021 | <i>Instructor.</i> University of Vienna, Department of Paleontology, Vienna, Austria. 2021W 280159-1 MA-ERD-W-1.1 Paleoceanography and climate change. |
| Feb.-May 2021 | <i>Instructor.</i> University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EESC 100 Introduction to Oceanography; EESC 310(W) Science and Sustainability; EESC 393 Senior Thesis; EESC 395 Topics in Paleoceanography. |
| Aug.-Dec. 2020 | <i>Instructor.</i> University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY; EESC 395 Topics in Paleoceanography. |
| Jan.-May 2020 | <i>Instructor.</i> University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EES 100 Introduction to Oceanography; EES 220W Geobiology; EES 391 Independent Study. |

- Aug.-Dec. 2019 *Instructor.* University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EES 310(W)/SUS 410 Science and Sustainability.
- Aug.-Dec. 2018 *Instructor.* University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EES/SUS 310(W)/SUS 410 Science and Sustainability.
- Jan.-May 2018 *Instructor.* University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EES/SUS 100 Introduction to Oceanography; EES 274/474 Paleooceanography and Climate Change.
- Aug.-Dec. 2017 *Instructor.* University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EES 310(W) Science and Sustainability.
- Jan.-May 2017 *Instructor.* University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EES 100 Introduction to Oceanography; EES 310(W) Science and Sustainability.
- Aug.-Dec. 2016 *Instructor.* University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EES 220 Introduction to Geobiology.
- Jan.-Apr. 2016 *Instructor.* University of Rochester, Department of Earth and Environmental Sciences, Rochester, NY. EES 274/474 Seminar in Paleooceanography.
- Jan.-May 2014 *Teaching Assistant.* Rensselaer Polytechnic Institute, Department of Earth and Environmental Sciences, Troy, NY. EARTH 4500 Earth's Climate.
- Sept.-Dec. 2013 *Teaching Assistant.* Rensselaer Polytechnic Institute, Department of Earth and Environmental Sciences, Troy, NY. EARTH 4070 Sedimentology/Stratigraphy; EARTH 4190 Environmental Measures.
- Jan.-May 2013 *Teaching Assistant.* Rensselaer Polytechnic Institute, Department of Earth and Environmental Sciences, Troy, NY. EARTH 4180 Environmental Geology; EARTH 4500 Earth's Climate.
- Sept.-Dec. 2012 *Teaching Assistant.* Rensselaer Polytechnic Institute, Department of Earth and Environmental Sciences, Troy, NY. EARTH 2610 Oceanography; EARTH 4200/6200 Applied Micropaleontology.

EXPEDITIONS:

- Apr. 7-Aug. 7 2022 R/V Joides Resolution (IODP Expeditions 390 & 393), South Atlantic Ocean – Shore-based member of the Science Party (micropaleontologist)
- Jul. 28-Aug. 7 2016 R/V Atlantis, US Atlantic margin
Member of the Science Party, Alvin Diver, Gravity Core coordinator
- 14-17 Jul. 2016 R/V G.O. Sars, Svalbard, Norway
Member of the Science Party

OTHER EXPERIENCES AND ACTIVITIES:

Member of the Deep Ocean Observing Strategies (DOOS) Biogeochemistry Essential Ocean Variable (Methane) Task Team, summer 2022-ongoing.

Member of the Working Group Bforams@microtax. The goal of this Working Group is the development of an Online Deep-Sea Benthic Foraminifera Taxonomic Database . This effort is led by B. Huber (Smithsonian National Museum of National History) and A. Burkett (Oklahoma State University), summer 2022-ongoing.

Deep Ocean Early-Career Researchers (DOERs) Professional Development Program – program organized by the *Deep Ocean Observing Strategy*, winter 2022-summer 2025.

ECORD Summer School: Downhole Logging for IODP Science – summer school sponsored by *ECORD, EPC, USSSP*, 13-17 September 2021.

Gas hydrate in sediments – workshop sponsored by *NFIP, AMGG, UiB, UiT, and CAGE*, 26-28 March 2019.

UNOLS Deep Submergence Science Committee New-User Program - Short workshop sponsored by the *University-National Oceanographic Laboratory System (UNOLS)*, 8-9 December 2018.

UNOLS Deep-Submergence Science Leadership Cruise, July 26-August 8, 2016.

Workshop on Secondary Ion Mass Spectrometry – Arizona State University, 6-8 January 2016.

“Science Education Workshop” – Rochester Museum and Science Center, December 2015.
“Reconstructing Earth’s deep-time climate – the state of the art in 2012” - Short course sponsored by the *Paleontological Society* and Co-Sponsored by the *GSA, SEPM, and Cushman Foundation*, GSA 2012.

Geobiology International Summer Course, sponsored by *Agouron Institute, Gordon and Betty Moore Foundation, NSF, USC Wrigley Institute for Environmental Studies, NASA, Colorado School of Mines*, Jun. 12-Jul.13 2011. PROJECT: Microbial survival in lithifying environments (presented at AGU 2011).

“Taxonomy and ecology of recent Foraminifera” - HERMES (Hotspot Ecosystem Research on the Margins of European Seas) Workshop, co-proposed and co-convened by HERMES partner *CoNISM*a, Ancona (Italy), 7-10 April 2008.

CO-CHAired MEETING SESSIONS:

Insights from microfossils and their modern analogs: from traditional and emerging approaches, to critical re-evaluations – GSA Annual Meeting 2022.

Oceans and Climates through Earth History: From Proxy Reconstructions to Model Assessments – GSA Annual Meeting 2020.

Insights from microfossils and their modern analogs: from traditional to emerging approaches – GSA Annual Meeting 2019.

Insights from microfossils, from terrestrial to marine environments – GSA Northeastern Section Meeting 2016.

PP23C. Cenozoic Climate: From Proxy Reconstructions to Model Assessments III - AGU Meeting 2011.

REVIEWER FOR THE FOLLOWING JOURNALS: *Biogeosciences, Climate of the Past, Deep-Sea Research Part II, Earth and Planetary Science Letters, Frontiers Marine Science, Geochimica et Cosmochimica Acta, Geology, Journal of Earth System Science, Journal of Foraminiferal Research, Journal of Geophysical Research – Biogeosciences, Journal of the Brazilian Chemical Society, Marine and Petroleum Geology, Nature Communications, Nature Geoscience, Micropaleontology, Palaeogeography Palaeoclimatology Palaeoecology, Paleoceanography, Science Advances.*

PROPOSAL REVIEWER FOR THE FOLLOWING FUNDING AGENCIES: *NSF - Ocean Science: Marine Geology and Geophysics; ANR - French National Research Agency: CE01 - Terre fluide et solide*

AWARDS AND HONORS:

2014 Goldschmidt 2014 Travel Grant
2013 Rensselaer Polytechnic Institute Founders Award of Excellence
The Cushman Foundation Loeblich and Tappan Student Research Award
SEPM Foundation Award
IAGC-Elsevier Student Research Grant
2012 GSA Student Research Grant
Garry Jones and Brian O'Neill Memorial Grant for NAMS Student Research
2011 Geobiology International Summer Course Scholarship
2010 Cushman Foundation Student Travel Award for FORAMS 2010

PROFESSIONAL AFFILIATIONS:

Cushman Foundation for Foraminiferal Research
American Geophysical Union (AGU)
Geochemical Society (GS)

STUDENTS ADVISED:

Amy Eisenstadt (Undergraduate; University of Rochester)
Gregory Shinaman (Undergraduate; University of Rochester)
Brian O'Neil (Undergraduate; University of Rochester)
Molly Robinson (Undergraduate; University of Rochester)
Liam Geyer (Undergraduate; University of Rochester)
Noah Han (Undergraduate; University of Rochester)
Melyssa Correa-Diaz (Undergraduate; University of Rochester; Ronald McNair Scholar)
Margaret Scholer (Undergraduate; University of Rochester; Summer Research Assistant)
Jack Schneider (Undergraduate; University of Rochester; Summer Research Assistant)

THESIS (CO-)SUPERVISOR:

Kine Liland Bruvik (The Arctic University of Norway; M.S. Thesis; Class 2019)
Molly Robinson (University of Rochester; Senior Thesis; Class 2021)
Liam Geyer (University of Rochester; Senior Thesis; Class 2022)
Jack Schneider (University of Rochester; M.S. Thesis; Class 2023)

UNIVERSITY OF ROCHESTER – SERVICE ACTIVITIES:

Reviewer UR Discovery Grants (Academic Year 2022)
Senior thesis reader (Molly Weiner and Amy Eisenstadt; Class 2016)

SEMINARS TO COMMUNITY GROUPS:

- Oct. 2022 PolarRES Seminar Series – lecture given to Ukrainian high school students
- Oct. 2018 Rochester Academy of Science – Fossil Section
- Dec. 2015 Rochester Museum and Science Center – Richard C. Shultz Science on the Edge Lecture series

MEDIA APPEARANCE:

Meet the future leaders of deep ocean observing

<https://storymaps.arcgis.com/stories/6b70811732884162b35da102b5a23fab>

<https://www.youtube.com/watch?v=8KHIDZVNX9c>

Current visiting: Chiara Borrelli - https://fgga.univie.ac.at/news/news-views/detailansicht/news/currently-visiting-chiara-borrelli/?tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=920555f9eb4e5bdb412254a2a3573b0e

[views/detailansicht/news/currently-visiting-chiara-borrelli/?tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=920555f9eb4e5bdb412254a2a3573b0e](https://fgga.univie.ac.at/news/news-views/detailansicht/news/currently-visiting-chiara-borrelli/?tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=920555f9eb4e5bdb412254a2a3573b0e)

[borrelli/?tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=920555f9eb4e5bdb412254a2a3573b0e](https://fgga.univie.ac.at/news/news-views/detailansicht/news/currently-visiting-chiara-borrelli/?tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=920555f9eb4e5bdb412254a2a3573b0e)

Environment coastal & offshore – Groundbreaking methods reconstruct past methane seeps in Arctic Ocean

<https://ecomagazine.com/news/polar/groundbreaking-methods-reconstruct-past-methane-seeps-in-arctic-ocean>

Centre for Arctic Gas Hydrate, Environment and Climate - Intensity of past methane release measured with new, groundbreaking methods

<https://www.youtube.com/watch?v=WbU4lmk5HF0&feature=youtu.be>

<https://cage.uit.no/2020/03/11/intensity-of-past-methane-release-measured-with-new-groundbreaking-methods/>

Geochemical Society Instagram, Newsletter, and Website – Meet the scientist

<https://www.instagram.com/p/B7tuyowJJ-3/>

<https://www.geochemsoc.org/news/2020/01/27/meet-scientist-chiara-borrelli>.

Photo of the month – Centre for Arctic Gas Hydrate, Environment, and Climate -

<https://cage.uit.no/2019/03/21/march/>

How the Arctic Ocean became salty by Beth Geiger, Science News For Students

<https://www.sciencenewsforstudents.org/article/how-arctic-ocean-became-salty>

Dive Deeper: you never forget your first dive (WHOI video) -

<https://vimeo.com/album/4261384/video/191864896>

Life on the Shore-Based Team: the Other Half of a Telepresence Expedition by Jeffrey Marlow, Explorers Journal (National Geographic)

<http://voices.nationalgeographic.org/2016/10/22/life-on-the-shore-based-team-the-other-half-of-a-telepresence-expedition/>

PhD Student Research Grants – Elements, 9(3), page 229, 2013.

OUTREACH AND VOLUNTEER ACTIVITIES:

- Nov. 2019 Participation to a STEM-focused Girl Scout Troop, a program organized by the Rochester Central Library and Girl Scouts of Western New York.
- Aug. 2019 Invited talk to pre-K to grade 5 teachers as part of an outreach program funded by the U.S. Department of Education - Math and Science Partnership and organized by the University of Rochester Warner School of Education in collaboration with the Rochester City School District.
- Apr. 2018 Faculty tea – I was among the faculty members invited to this event, which was organized by Sigma Delta Tau as a networking opportunity for its members.
- Feb. 2018 Rochester Museum and Science Center – Science Saturdays (Featured presenter).
- Aug. 2017 Brighton Farmers Market – Ask a Scientist (volunteer scientist).
- Jul. 2017 Rochester Museum and Science Center – Ladies in the Lab (Featured presenter).
- Apr. 2016 Rochester Museum and Science Center – Science Saturdays (Featured presenter).
- Apr. 2015 Panelist at the University of Rochester Post-Doc Panel Discussion.
- 2013 Rensselaer Polytechnic Institute (RPI) Climby Ambassador (Climby is an online tool designed to improve RPI’s admissions process. Thanks to Climby, RPI can build personal relationship with all prospective students with the help of designed people (RPI ambassadors) who have the possibility to chat with prospective students on behalf of RPI).
- 2013 RPI Successful Female Graduate Student Representative (The RPI Office of Graduate Admissions created a webpage with the profiles of several successful graduate students, and I have been recommended by the Associate Deans of the RPI School of Science).
- 2012-2013 RPI School of Science Graduate Student Council Member (organization of social and professional events, preparation of the Council by-laws as reference for future generation of students, organization of the first RPI School of Science Graduate Symposium, collaboration with the search committee for the new RPI Associate Dean of Student Affairs).
- Jun. 2012 RPI Science Day - Invited scientific talk to GK-12 program teachers.