

# Carly Peltier

Ph.D. Candidate

Curriculum Vitae, October 2020

Lamont-Doherty Earth Observatory • Columbia University

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## RESEARCH INTERESTS

- Using exposure dating, geomorphic mapping, remote sensing, glacier models, and historical and sedimentary records to understand glacier and climate changes of the past, present, and future and their impacts on society.

## TEACHING INTERESTS

- Glacial geology, paleoclimatology, climate and society, surface processes, geochemistry, paleoceanography

## EDUCATION

Columbia University New York City, NY	<b>Ph.D. in Earth and Environmental Sciences</b>	May 2021 (expected)
Columbia University New York City, NY	<b>MPhil in Earth and Environmental Sciences</b>	October 2019
Pontificia Universidad Católica Santiago, Chile	<b>Fulbright Fellow</b>	March 2018- December 2018
Columbia University New York City, NY	<b>M.A. in Earth and Environmental Sciences</b> GPA: 4.0	October 2017
Mount Holyoke College South Hadley, MA	<b>B.A. with majors in Geology and Economics</b> GPA: 3.8, High Honors, <i>magna cum laude</i>	December 2014

## FELLOWSHIPS, GRANTS, AWARDS

Columbia University Teaching Scholar (9 months of support)	2020
Columbia University Climate Center Research Grant (\$9,000)	2020
GSAS Travel Matching Award (\$300)	2020
Arts and Sciences Graduate Council Student Travel Grant (\$500)	2019
Earth Institute Research Assistantship (\$1,000)	2019
Fulbright U.S. Student Grant (9 months of support)	2018
National Geographic Early Career Grant (\$5,000)	2017
Bardwell Memorial Fellowship (\$6,700)	2017
National Science Foundation-Graduate Research Fellowships Program Honorable Mention	2017
Columbia University Climate Center Research Grant (\$10,000)	2015
Columbia University Dean's Fellowship	2015
Mary Lyon Scholar, Mount Holyoke College	2015
High Honor in Geology, Mount Holyoke College	2015
Mary F. Waterous Field Studies Scholarship, Mount Holyoke College Geology Department	2014
Martha Godchaux Field Scholarship, Mount Holyoke College Geology Department	2014
Claire Bates Davidson Scholarship, Mount Holyoke College Geology Department	2014
I.T.A. Scholar-Athlete Award for Varsity Athletes with Exceptional Academic Achievement	2011

## PROFESSIONAL MEMBERSHIP

Sigma Xi Associate Member  
American Geophysical Union

## PUBLICATIONS

Doughty, A., Kaplan, R.M., **Peltier, C.**, Barker, S., A global maximum in ice extent during MIS 4 (submitted to *Quaternary Science Reviews*).

**Peltier, C.**, Kaplan, R.M., Schaefer, J.M., Soteres, R., Sagredo, E.A., and Aravena, J.C, The large MIS 4 and long MIS 2 glacial advances in southernmost South America (submitted to *Quaternary Science Reviews*).

Soteres, R.L., **Peltier, C.**, Kaplan, M.R., Sagredo, E.A., 2020, Glacial Geomorphology of the Strait of Magellan, *Journal of Maps*.

Kaplan, R.M, Strelin, J, Schaefer, J.M, **Peltier, C.**, Martini, M., Flores, E., Winckler, G., Schwartz, R., 2020, Holocene glacier behavior around the northern Antarctic Peninsula and possible causes, *Earth and Planetary Science Letters*.

## INVITED TALKS

Mar 2019 Instituto de Geografía, Pontificia Universidad Católica de Chile;  
Host: Dr. Esteban Sagredo (talk given in Spanish)

Dec 2017 Department of Environmental Studies, Geology and Geography Brown Bag Lunch Series,  
Mount Holyoke College; Host: Dr. Alan Werner

## TEACHING

### Curriculum Development

- Designed a 3000 level course on Glacial Geomorphology that I will teach at Columbia spring 2021
- Participated in the Teaching Development Program hosted by Columbia's Center for Teaching and Learning

### Columbia University Teaching Assistant

- Field Geology: Italy (spring 2019) and Death Valley, California (spring 2017 and 2018), Geochemistry for a Habitable Planet (fall 2016)

### Mount Holyoke College Teaching Assistant

- Environmental Geology lab (spring 2014, fall 2014), Intro to Microeconomics (fall 2011), Intro to Statistics (spring 2011), Intermediate Spanish (fall and spring 2011)

## LEADERSHIP AND SERVICE

### Co-founder of Race Talk

- Facilitated monthly discussions around race and racism at the Lamont-Doherty Earth Observatory, presented our model and results in a talk at the American Geophysical Union Fall meeting in 2019

### Student Body Leadership

- Student representative to the Executive Committee of the Lamont-Doherty Earth Observatory (2019-2020)

### Conference Session Co-Convener

- The Big 4: Records of worldwide Stage 4 glacial, climatic, and environmental changes, International Union for Quaternary Research 2019, Dublin, Ireland.

### Outreach Talks and Activities

- East Side Middle School 6<sup>th</sup> grade science class (2015, 2019), Lamont-Doherty Open House (annual), Earth2Class workshop (2020), Earthfest at the American Museum of Natural History (2019)

## PRESENTATIONS

### Talks

The Former Patagonian Ice Sheet at 45°S; Glacier-Climate Insights from the Ñirehuao Lobe, Comer Climate Conference, Leeward Farm, Wisconsin, October 2019.

The Former Patagonian Ice Sheet at 45°S; Glacier-Climate Insights from the Ñirehuao Lobe, International Union for Quaternary Research, Dublin, Ireland, July 2019.

LGM and MIS 4 glaciation in southernmost South America constrained using precise <sup>10</sup>Be moraine chronology and geomorphic mapping, Comer Climate Conference, Leeward Farm, Wisconsin, October 2017.

Glacial fluctuations in southern South America from the pre-LGM to the present, First Year Symposium, Columbia University, March 2015.

A 2,000 Year Paleotemperature Reconstructions from a Varved Sediment Core from Tropical Africa, Earth Adventures Departmental Presentation Series, October 2014.

### Posters

Glacier-Climate Reconstructions of a Big MIS 4 in Southernmost South America, International Union for Quaternary Research, Dublin, Ireland, July 2019.

Stage 4 Glacier Extents in the Middle Latitudes of the Southern Hemisphere, American Geophysical Union, Washington, D.C., December 2018.

Glacier fluctuations in southern Patagonia over multiple glacial cycles and implications for regional climate, Congreso Geologico Chileno, November 2018.

Glacier-Climate Change in Southern South America over Multiple Glacial Cycles, and Implications for Glacial to Interglacial Shifts in the Westerly Winds, American Geophysical Union, New Orleans, December 2017.

A Glacial Chronology of the Strait of Magellan, American Geophysical Union, San Francisco, December 2016.

Temporal Variability in Branched Glycerol Dialkyl Glycerol Tetraethers (brGDGTs) in a Varved Tropical Lake System: Implications for High-Resolution Paleotemperature Reconstructions, Poster Presentation, American Geophysical Union, San Francisco, December 2014.

Application of the BrGDGT Temperature Proxy on a Varved Tropical Lake, NSF REU Symposium, University of Texas at Austin, August 2013.