

# Winnie Chu

wchu38@gatech.edu ◇ Short CV ◇ [Lab Website](#)  
Earth & Atmospheric Sciences ◇ Georgia Institute of Technology

## PROFESSIONAL APPOINTMENTS

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<b>Assistant Professor</b> <i>Georgia Institute of Technology, School of Earth and Atmospheric Sciences</i>	8/2020 – Present
<b>Postdoctoral Researcher</b> <i>Stanford University, Department of Geophysics</i>	8/2017 – 07/2019 <i>Advisor: Dustin M. Schroeder</i>
<b>Visiting Student Researcher</b> <i>NASA Jet Propulsion Laboratory</i>	05/2015 – 09/2015 <i>Supervisor: Dustin M. Schroeder, Helene Seroussi</i>

## EDUCATION

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<b>Columbia University, New York</b> <i>Ph.D. Earth &amp; Environmental Sciences (Advisor: Robin E. Bell)</i>	10/2017
<b>Columbia University, New York</b> <i>MPhil. Earth &amp; Environmental Sciences (Advisor: Robin E. Bell)</i>	10/2015
<b>University College London, United Kingdom</b> <i>MSci. Geophysics (1<sup>st</sup> class honor) ◇ 4-year program ◇ Thesis advisor: Seymour Laxon</i>	05/2011

## SELECTED PUBLICATIONS

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*Google scholar* [link](#) ◇ † represents first author by Chu's students or postdocs

- † Haris, R., **Chu, W.**, Robel, A., (2023). What can radar-based measures of subglacial hydrology tell us about basal shear stress? A case study at Thwaites Glacier, West Antarctica. *J. Glaciology* (accepted) [*Haris is Chu's URA*]
- † Clavette, R., **Chu, W.**, Young, T. J., Christoffersen, P., Hubbard, B., Doyle, S., Bienert, N., Dawson, E., Peters, Sean T., Hornsey, L. Observations of englacial and subglacial hydrology at Sermeq Kujalleq (Store Glacier) from autonomous phase-sensitive radio-echo sounding. *PNAS* (submitted)
- † Dawson, E.J.G, Schroeder, D.M., Chu, W., Mantelli. E., Seroussi. H., (2024). Heterogeneous basal thermal condition underpinning the Adelie-George V Coast, East Antarctica. *GRL*, 51, e2023GL105450. [DOI link](#)
- Sommers, A., Meyer, C., Morlighem, M., Rajaram, H., Poinar, K., Chu, W., & Mejia, J. (2023). Subglacial hydrology modeling predicts high winter water pressure and spatially variable transmissivity at Helheim Glacier, Greenland. *J. Glaciology*, 2023:1-13. 2023:1-13. [DOI link](#)
- Chu, W.** (2022). Groundwater under Antarctica goes deep. *Science*. 376, 577–578. [DOI link](#)
- † Dawson, E.J.G., Schroeder, D.M., **Chu, W.**, Mantelli. E., Seroussi. H., (2022). Ice mass loss sensitivity to the Antarctic ice sheet basal thermal state. *Nat. Communications*, 13(1), 4957. [DOI link](#)
- Chu, W.**, Hilger, A., Schroeder, D.M., Culberg, R., et al., (2021). Multisystem Synthesis of Radar Sounding Observations of the Amundsen Sea Sector From the 2004–2005 Field Season, *JGR Earth Surface*, I126(10), 1–17. [DOI link](#)

## STUDENTS & POSTDOCTORAL ADVISING

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### Postdoctoral Researcher

Eliza Dawson (2017 – present)

*Ph.D. advisor: D.M. Schroeder* ◇ Dawson will join Chu's lab as a postdoc starting Fall 2024

Dr. Riley Culberg (2019 to 2022)

*Ph.D. advisor: D.M. Schroeder* ◇ *Currently: Assistant Professor at Cornell University*

### Ph.D. students

Donglai Yang (2023 – present)

Neosha Narayanan (2023 – present)

Kiera Tran (2022 – present)

Dante Angelo Tarzona (2021 – present)

### Master students

Renee Clavette (2020 – 2022)

*Currently: Ph.D. student at Univ. of Maine*

### URA students

Kieran Choi-Slattery, *Major: AE* (2022 – present)

Abdullah Altaweel, *Major: CS* (2022 – present)

Rohaiz Haris, *Major: ME* (2021 – present)

Laila Combs, *NSF REU summer student* (2022)

Leah Hornsey, *Major: EAS* (2020 – 2022)

Kiera Tran, *Major: EAS* (2021 – 2022)

Ella Stewart, *Major: EAS* (2020 – 2022)

## SELECTED HONORS & AWARDS

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Kavli Fellow, National Academy of Sciences – 2023

Outstanding Student Paper Award, American Geophysical Union– 2016

Antarctica Service Medal, United States Congress – 2015

## SELECTED SERVICES

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**Associated editor**, Journal of Geophysical Research, Earth Surface (2022 to present)

**Organizing committee**, NASA Future of Greenland Ice Sheet Workshop (03/2023) ◇ IGS Five Decades of Radioglaciology (08/2019)

**Section chair**, Advances in Glacier Hydrology (AGU Fall Meeting 2021 to 2023) ◇ Geophysical and in situ methods for snow and ice studies (EGU General Assembly 2022) ◇ Advances in Understanding Processes at the Beds of Glaciers and Ice Sheets (AGU Fall Meeting 2018) ◇ Beyond Ice Thickness: Using Radar Sounding to Understand the Dynamics of Glacier Systems (AGU Fall Meeting 2018) ◇ Mass and energy balance of snow and ice and drivers of Greenland ice sheet mass loss (EGU General Assembly 2015)

**Reviewer**, Proposals: NASA (*panel & ad hoc*), NSF (*ad hoc*) ◇ Papers: Science, Nature, Nature Geoscience, Nature Communications, PNAS, Journal of Geophysical Research: Earth Surface, Geophysical Research Letters, Journal of Glaciology, Annals of Glaciology, IGARS, IEEE J-STARS, IEEE Transactions on Geoscience and Remote Sensing

**University committees**, Academic integrity committee (Fall 2022 – present) ◇ Academic faculty senate (Fall 2022 – present)

**Department committees**, Planetary science faculty search committee (Fall 2022 – Spring 2023) ◇ Graduate student admission committee, (Fall 2021 – present)