

DR. COLLEEN GOLJA

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EDUCATION

Ph.D. in Environmental Science and Engineering , Harvard University, Cambridge, USA <i>Exploring the Limits of Geophysical Models of Solar Geoengineering</i> Dissertation Committee: David Keith, Frank Keutsch, and Marianna Linz	2016 - 2022
B.S. Chemical Engineering , Tufts University, Medford, USA	2011-2015

EMPLOYMENT

Marie Skłodowska-Curie Postdoctoral Fellow (UKRI Horizon Europe Guarantee) Imperial College London, UK <i>Quantifying the Role of Stratospheric Mean State Bias on Representations of Climate</i> <ul style="list-style-type: none">· Constrain uncertainties in future climate projections by understanding the role of known stratospheric model biases in directing the response to climate forcings· Coordinate the analysis of a multi model inter-comparison project (SHeat) to understand the climate response to stratospheric radiative perturbations	2023 - pres.
Postdoctoral Researcher , Harvard University, USA <ul style="list-style-type: none">· Quantified the contribution of stratospheric heating to estimates of climate risks associated with Stratospheric Aerosol Injection using outputs of the Geoengineering Modeling Intercomparison Project· Managed data storage and analysis for the stratospheric heating model intercomparison project	2022 - 2023
Engineering Consultant , Navigant Consulting, Burlington, USA <ul style="list-style-type: none">· Supported U.S. Department of Energy's policy negotiations and technical documentation for commercial and residential appliance rule-makings	2015 - 2016

FELLOWSHIPS AND FUNDING

Marie Skłodowska-Curie Postdoctoral Fellow (UKRI Horizon Europe Guarantee) (€220,900)	2023-2025
Smith Family Fellowship Merit based fellowship covering tuition, fees, stipend, and a \$5000 research bonus	2017-2018
Stonington Endowment Graduate Fellowship Internally competitive merit based fellowship covering tuition, fees, and stipend	2016-2017

TEACHING AND MENTORSHIP EXPERIENCE

Undergraduate Teaching Fellow Appointments at Harvard University	
Environmental Policy Analysis: Air Pollution, Solar Geoengineering and Environmental Justice	2021
Climate and Climate Engineering (ESE 136)	2019, 2020
Energy within Environmental Constraints (ENG SCI 137)	2018
Teaching Awards	
Harvard Bok Center's <i>Commendation for Extraordinary Teaching</i>	2020
Harvard Bok Center's <i>Certificate of Distinction in Teaching</i>	2019
Supervision of Student Research and Marking of Projects	
Imperial College London MSci Project Assessor	2024
Undergraduate Thesis Mentor, Harvard University 2023: <i>A Literature Review on Stratospheric Aerosol Injection</i>	2022, 2023

2022: *Albedo enhancement on Arctic sea ice: estimate of radiative distribution efficiency*

- facilitated student's AGU conference attendance (2021), assisting with poster creation and presentation
- supported student's successful Rhodes Fellowship (2022) and successful Stanford Ph.D. application

Mentorship

Imperial College Peer Mentoring Network	2023 - pres.
Geoscience Education and Mentorship Support Mentor	2022 - pres.
Harvard University Women in STEM Mentor	2019 - 2022

OUTREACH AND PUBLIC ENGAGEMENT

Media Interviews and Public Lectures

Reuters: <i>Cloud Seeding and the Dubai Floods</i>	2024
CNBC: <i>Climate Change and Extreme Precipitation Events</i>	2023
The Helyx Show: <i>Can we Engineer our way out of Climate Change?</i>	2021
Reviewer 2 does Geoengineering: <i>Colleen Golja discusses her role in the SCoPEX experiment</i>	2021
CNET: <i>Harvard team thinks putting sunglasses on the Earth might buy time to solve global warming</i>	2020
Harvard "Science in the News" Series: <i>Solar Geoengineering: Is controlling our climate possible?</i>	2018

SELECTED CONFERENCE PRESENTATIONS AND INVITED SEMINARS *Indicates invited talk

- *Golja, C. M. (2024a). Atmospheric Chemistry Seminar, University of Copenhagen.
- *Golja, C. M. (2024b). Quantitative Climate and Environmental Science Seminar, Cambridge University.
- *Golja, C. M. (2024c). Space Seminar Series, Technical University of Denmark.
- Golja, C. M., Linz, M., & Dykema, J. A. (2024). Quantifying Model Uncertainty in the Dynamical and Radiative Adjustment to Stratospheric Heating. *AMS 22nd Conference on Middle Atmosphere*.
- *Golja, C. M. (2023a). Atmospheric and Oceanic Sciences Seminar, McGill University.
- *Golja, C. M. (2023b). NASA XD: A Discussion On Geoengineering, NASA Headquarters.
- *Golja, C. M. (2023c). Ocean Atmosphere Seminar, Imperial College London.
- Golja, C. M., Bednarz, E., & Linz, M. (2023). GeoMIP Workshop, Stratospheric Heating: Investigations into the radiative effects of stratospheric aerosol injection.
- Golja, C. M., Keith, D. W., & Linz, M. (2022a). Climate impacts of stratospheric heating from solar geoengineering scenarios. *AMS session on Stratospheric Aerosol Climate Intervention and Natural Analogs*.
- Golja, C. M., Keith, D. W., & Linz, M. (2022b). Contextualizing the role of stratospheric heating from stratospheric aerosol injection. *AGU session on Advances in Solar Radiation Modification*.

PUBLICATIONS * =in print ◊ =submitted ⊗ =in prep

- *Behrer, A. P., Park, R. J., Wagner, G., Golja, C. M., & Keith, D. W. (2021). Heat has larger impacts on labor in poorer areas. *Environmental Research Communications*, 3(9), 095001. <https://doi.org/10.1088/2515-7620/abffa3>
- *Golja, C. M., Chew, L. W., Dykema, J. A., & Keith, D. W. (2021). Aerosol dynamics in the near field of the SCoPEX stratospheric balloon experiment. *Journal of Geophysical Research: Atmospheres*, 126(4). <https://doi.org/10.1029/2020JD033438>
- ⊗Golja, C. M., Bednarz, E., Ceppi, P., Jones, A., Keith, D. W., Kravitz, B., Linz, M., Simpson, I., Visionsi, D., & Watanabe, S. (n.d.-a). Assessing the dynamical impact of stratospheric heating. (*In prep: JGR Atmospheres*).
- ⊗Golja, C. M., Weiners, C., Young, D., Duffey, A., Dai, D., & Oomen, J. (n.d.-b). Understanding the choice of baseline and framing in the solar radiation management literature. (*In prep: GRL*).