

**NAME, First Name:** CLYNE, Margot

**Affiliations:** Laboratory for Atmospheric and Space Physics, University of Colorado Boulder

**Role in the project:** Early Career Scientist

**Current position:** Ph.D. Candidate

**Former Position(s):**

- Visiting Research Assistant, NCAR, ACOM, PI: Jean-Francois Lamarque, Co-I: Michael J. Mills, summers (2016, 2017)
- Undergraduate Research Assistant, University of British Columbia EOAS, PI: Thomas Aubry, Supervisor: Mark A. Jellinek (2015 – 2017)

**Education:**

Ph.D. Candidate in Atmospheric Science, University of Colorado, Boulder (2017 – 2024)

Dissertation: Resolving modeling uncertainties in radiative forcing from volcanic eruptions. Advisor: Owen B. Toon

B.Sc. in Math (+ Minor in Atmospheric Sci.), University of British Columbia (2013 – 2017)

**Services in National and/or International Committees (most recent nominations):**

Lead of the Hunga-Tonga Model Intercomparison Project (Tonga-MIP) (2022 – present)

Team member of SPARC activity “Hunga-Tonga impacts on the stratosphere” (2023 – 2025)

**Selected Publications:**

Clyne, M., Toon, O.B. (2023 in prep). Why including the volcanic cloud in photorate calculations has limited impact to SAOD in advanced interactive stratospheric aerosol models, (June 2023 PhD COMPSII thesis, in prep for submission: *Journal of Advances in Modeling Earth Systems*)

Clyne, M., Lamarque, J.-F., Mills, M.J., Khodri, M., Ball, W., Bekki, S., Dhomse, S.S., Lebas, N., Mann, G., Marshall, L., Niemeier, U., Poulain, V., Robock, A., Rozanov, E., Schmidt, A., Stenke, A., Sukhodolov, T., Timmreck, C., Toohey, M., Tummon, F., Zanchettin, D., Zhu, Y., and Toon, O.B., (2021). Model physics and chemistry causing intermodel disagreement within the VolMIP-Tambora Interactive Stratospheric Aerosol ensemble. *Atmospheric Chemistry and Physics*, 21, 3317–3343, <https://doi.org/10.5194/acp-21-3317-2021>. EGU Highlight Paper

Bardeen, C.G., Kinnison, D.E., Toon, O.B., Mills, M.J., Vitt, F., Xia, L., Jagermeyr, J., Lovenduski, N.S., Scherrer, K.J.N., Clyne, M., and Robock, A., (2021). Extreme ozone loss following nuclear war results in enhanced surface ultraviolet radiation. *J. Geophys. Res.: Atmos.*, 126, <https://doi.org/10.1029/2021JD035079>

Aubry, T.J., Jellinek, A.M., Degruyter, W., Bonadonna C., Radić V., Clyne, M., Quainoo, A. (2016). Impact of global warming on the rise of volcanic plumes and implications for future volcanic aerosol forcing. *J. Geophys. Res: Atmos.*, 121, <https://doi.org/10.1002/2016JD025405>