CARLOS J. MARTINEZ

Atmospheric Scientist interested in climate variability, dynamics, risks, and resiliency, future climate and its societal impacts, subseasonal-to-seasonal prediction, STEM Education, climate science communication and multifaith environmentalism.

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[publications](#)

[carlosjaviermartinez.com](#)

EDUCATION

Columbia University, PhD, 2021
Earth and Environmental Sciences
Focus: Climate Science

Texas A&M University, BS, 2016
Meteorology, *Magna Cum Laude*
Minor: Mathematics

HONORS

2022 AMS Early Career Leadership Academy Recipient
2022-2023 AGU Community Science Fellow
2021-2023 NSF/NCAR ASP Fellowship
2021-2022 NCAR Education and Outreach DEI Grant Recipient
2020 AMS Outstanding Oral Presentation Award
2018 NSF Graduate Student Research Fellowship (*Honorable Mention*)
2018 AGU Outstanding Student Presentation Award
2016 Columbia U. Provost Diversity Fellow
2014 AGU Virtual Showcase Grand Prize Winner
2014-2015 NOAA Hollings Scholar
2014 NCAR SOARS Scholar

SOCIETY MEMBERSHIPS

American Geophysical Union
American Meteorological Society
American Association for the Advancement of Science

EXPERIENCE

National Science Foundation
AAAS Science & Technology Policy Fellow
Sept. 2023 - present
Alexandria, VA

Orchestrated and designed comprehensive strategies and management processes for the [National Science Foundation Coastlines and People (CoPe) Program.](#) The program converges coastal sustainability, hydroclimate, climate mitigation and adaptation, land-atmosphere-ocean interactions, and human dimensions, and informs emerging climate policy and technical issues across the U.S. East and West coast, Great Lakes, Belize and U.S. Virgin Islands, Hawaii, Puerto Rico, and Alaska. Serve as NSF United Nations Ocean Decade Strategic Lead to build both national and international coalitions focused on the convergence of natural and ocean science research.

National Center for Atmospheric Research
Advanced Study Program (ASP) Postdoctoral Fellow
Aug. 2021 – Aug. 2023
Boulder, CO

Assessing and diagnosing biases in the Community Earth System Model (CESM) Version 2, and other CMIP6 models on their simulation of tropical hydroclimates (e.g., Central America and Caribbean). Investigate future climate scenarios in tropical regions. Running idealized simulations of the high-resolution CESM using NCAR Cheyenne Supercomputer to investigate the role of small-to-large scale ocean and atmospheric forcings on the variability and mean-state of rainfall in the Caribbean. Facilitate workshops and develop initiatives on science communication and partnerships with spiritual, indigenous, and multifaith organizations and NCAR.

American Meteorological Society
Chair, Committee on Spirituality, Multifaith Outreach, and Science
Jan. 2021 - present

Initiated and lead a 70-member committee comprised of individuals from academic, private, public, and government sectors. Work with multifaith (e.g., Interfaith Power and Light, GreenFaith), Indigenous (e.g., Rising Voices), and spiritual organizations and the AMS/National Weather Service on [community resiliency form weather/climate-risks](#), environmental justice, [public communication on environmentalism](#), and increasing representation of indigenous knowledge systems and voices at the AMS. Developed several [AMS Annual Meeting sessions, webinars, and initiatives on community science with spiritual/faith-based communities.](#)

Columbia University Lamont-Doherty Earth Observatory / International Research Institute for Climate and Society (IRI)
Graduate Research Assistant
Aug. 2016 – July 2021
New York, NY

Led research projects under the direction of [IRAP](#) and [ACToday](#) on the [seasonal mean-state](#), [interannual variability](#), and [seasonal prediction](#) of the Central American and Caribbean rainfall cycle. Developed a world-wide method [to better quantify subseasonal-to-seasonal rainfall characteristics](#). Collaborated with numerous Caribbean hydro/agricultural partners on research projects and assisted in several [workshops](#) for Caribbean/Central American climate services on subseasonal prediction of rainfall. Assisted in several courses in the Master's in Climate and Society program.

RELEVANT PUBLICATIONS

Martinez C., Munoz A, Goddard L, Kushnir Y, Ting M. Seasonal Prediction of the Caribbean Rainfall Cycle. Climate Services (2022). https://doi.org/10.1016/j.cliser.2022.100309

Martinez, C., Goddard L., Kushnir Y., Ting M. Interannual Variability of Early and Late-Rainy Seasons in the Caribbean. Climate Dynamics. (2020). https://doi.org/10.1007/s00382-020-05341-z

Martinez C., Goddard L., Kushnir Y., Ting M. Seasonal climatology and dynamical mechanisms of rainfall in the Caribbean. Climate Dynamics. (2019). https://doi.org/10.1007/s00382-019-04616-4

Martinez C., Das D., Bloomfield E., et al., Bridging the Cosmos: How inclusion and collaboration with Spiritual and Traditional Knowledge Systems can transform the Weather, Water, and Climate Enterprise. (2024). Bulletin of the American Meteorological Society. https://doi.org/10.1175/BAMS-D-23-0047.1

Martinez C., Simpson I, Fasullo J., Prein A. Simulation of Caribbean Hydroclimate in CESM and Other CMIP Models (under review).