



## Curriculum Vitae

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## Mission Statement

My lab explores the dynamics of the coupled Earth system toward useful predictions of impacts ranging from marine ecosystems to human health. Through teaching, I aim to equip students with the tools to investigate, communicate and act intelligently on matters of global change.

## Education

- Postdoctoral    Ocean & Climate Physics, Lamont–Doherty Earth Observatory of Columbia University; Mentors: Alexey Kaplan and Richard Seager (2008–2009)
- Ph.D.    2007    Atmospheric & Oceanic Science, University of Maryland–College Park  
Dissertation: Interannual variability of sea surface temperature in the eastern tropical Pacific Ocean and Central American rainfall; Advisor: Antonio J. Busalacchi
- B.S.    2004    Atmospheric & Oceanic Sciences, University of Wisconsin–Madison (Honors)  
Senior thesis: Planetary–scale flow features associated with periods of frequent rapid surface cyclolysis in the North Pacific Ocean; Advisor: Jonathan E. Martin

## Appointments

### *Current primary*

Associate Professor, Atmospheric & Oceanic Sciences, University of Colorado Boulder, 2018–<sup>†</sup>  
Fellow, Coop. Inst. for Res. in Env. Sciences (CIRES), University of Colorado Boulder, 2015–

### *Current secondary, visiting, affiliate, adjunct, and other*

Core Faculty, Center for Social and Environmental Futures (C–SEF), CU Boulder, 2022–  
Investigator, Western Water Assessment (WWA, a NOAA RISA), CU Boulder, 2021–  
Affiliate Faculty, Earth Lab, University of Colorado Boulder, 2018–  
Associate Professor (Secondary), Env. and Occup. Health, CO School of Public Health, 2017–  
Clinical Instructor, Section of Wilderness and Environmental Medicine, Department of Emergency Medicine, CU School of Medicine, 2017–  
Adjunct Scientist, Woods Hole Oceanographic Institution, 2017–  
Graduate Faculty, MIT–WHOI Joint Program in Oceanog./Applied Ocean Sci. and Eng., 2009–  
Adjunct Assoc. Res. Scientist, Ocean & Climate Physics, LDEO of Columbia University, 2009–

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<sup>†</sup> Tenure effective 8/2018.

## *Previous*

Visiting Scholar (Sabbatical), Center for the Environment, Harvard University, 1/2022–6/2022  
Visiting Scientist, Earth Observatory of Singapore, Nanyang Technological Univ., 2017–2020  
Assistant Professor, Atmospheric & Oceanic Sciences, University of Colorado Boulder, 2015–2018  
Visiting Professor (Sabbatical), LOCEAN/IPSL, Université Pierre et Marie Curie, Paris, 2015  
Graduate Faculty, University of Colorado Boulder, 2014–2015  
Associate Scientist, Geology & Geophysics, Woods Hole Oceanographic Institution, 2013–2015  
Assistant Scientist, Geology & Geophysics, Woods Hole Oceanographic Institution, 2009–2013  
Lecturer, Department of Earth & Environmental Sciences, Boston College, Fall 2010 & 2011  
Postdoctoral Fellow, Ocean & Climate Physics, LDEO of Columbia University, 2008–2009  
Research Associate, ESSIC, University of Maryland–College Park, 2007–2008  
Graduate Research Assistant, ESSIC, University of Maryland–College Park, 2004–2007  
Undergraduate Research Assistant, CIMSS, University of Wisconsin–Madison, 2003–2004

## Honors & Awards

AGU Atmospheric Sciences Turco Lectureship, 2024  
Columbia Climate Center Lectureship, Columbia University, Fall 2024<sup>†</sup>  
Faculty Fellowship, CU Research & Innovation Office (RIO), 2024  
Growth Award, Leadership Ed. for Advancement & Promotion (LEAP), CU Boulder, 2022  
Outstanding Service Award, CU ATOC, 2015 & 2021  
Chancellor's Research Innovation Award, 2020  
AGU Ocean Sciences Early Career Award, 2017  
Faculty Fellowship, CU ASSETT, 2017–2018  
Sloan Research Fellowship, Alfred P. Sloan Foundation, 2014  
Moltz Fellowship, Ocean and Climate Change Institute, WHOI, 2013–2015  
Lamont Fellowship, LDEO of Columbia University, 2008–2009  
Advanced Study Program (ASP) Postdoctoral Fellowship, NCAR (declined), 2008  
NRC Postdoctoral Research Award, The National Academies (declined), 2008  
Invited, Physical Oceanography Dissertation Symposium V (PODS V), Honolulu, HI, 2008  
Student Travel Award (AGU/NSF), IUGG General Assembly XXIV, Perugia, Italy, 2007  
Best Student Seminar, Department of A&OS, University of Maryland, 2006–2007  
First in Theme, Graduate Student Interaction Day, University of Maryland, 2007  
Citation for Scientific Outreach, University of Maryland, 2005  
Meteorological Satellite Applications Award, National Weather Association, 2004  
Hilldale Undergraduate Research Fellowship, University of Wisconsin, 2003–2004

## Service & Professional Activities

### *Internal service—University*

Member, Advisory Board, Sustainability Research Initiative, CU Boulder, 2025–  
Member, Advisory Board, Climate & Health Program, CU School of Medicine, 2020–  
Member, Executive Committee, Mission Zero Fund, CU Foundation, 2021–2023  
Member, Executive Committee, Boulder Faculty Assembly, 2020–2023

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<sup>†</sup> Awarded spring 2020; postponed and rescheduled several times due to the COVID–19 pandemic.

Chair/Co–Chair, Climate Science & Ed. Committee, Boulder Faculty Assembly, 2020–2023  
 Member, Climate Science & Education Committee, Boulder Faculty Assembly, 2018–2023  
 Member, Student Affairs Committee, Boulder Faculty Assembly, 2018–2020  
 Representative, Boulder Faculty Assembly, 2017–2024  
 Member, University of Colorado Consortium on Climate Change and Health, 2016–

*Internal service—Institute*

Divisional Director, CIRES Weather and Climate Dynamics Division, 2022–  
 Member, CIRES Executive Committee, 2022–  
 Member, CIRES Strategic Plan Implementation Committee, 2023–  
 Member, CIRES Distinguished Lecture Series Committee, 2021–2022  
 Member, CIRES/NOAA NCEI Paleoclimatology Research Scientist Search Committee, 2021  
 Member, CIRES Strategic Planning Committee, 2021  
 Member, CIRES Social Sciences Working Group, 2021  
 Chair, CIRES Distinguished Lecture Series Committee, 2020–2021  
 Chair, CIRES Innovative Research Program Committee, 2019–2020  
 Member, CIRES Innovative Research Program Committee, 2015–2016 & 2018–2019  
 Member, CIRES Visiting Fellows Committee, 2017–2018 & 2022–2023  
 Member, CIRES Graduate Fellowship Committee, 2016–2017

*Internal service—Department*

Associate Chair, ATOC, 2024–  
 Associate Chair (Interim), ATOC, Fall 2023  
 Member, ATOC Executive Committee, 2023–  
 Chair, ATOC Student Concerns Committee/Undergraduate Advisor, 2023–  
 Chair, ATOC Curriculum Committee, 2023–  
 Member, ATOC Graduate Admissions Committee, 2016 & 2022–2023  
 Member, ATOC Poster Conference Committee, 2021–2022 & 2022–2023  
 Member, ATOC Student Concerns Committee (Undergrad Advisor), 2022–2023  
 Chair, ATOC Quality Teaching Initiative Committee, 2021–2022  
 Chair, ATOC Diversity/Inclusive Excellence Committee, 2016–2020  
 Chair, ATOC Technology Committee, 2015–2020  
 Member, ATOC Colloquium Committee, 2018/19  
 Member, ATOC *ad hoc* Chair Nominating Committee, 2015

*Editing & reviewing*

Editor-in-Chief, *Geophysical Research Letters*, 2025–  
 Editor, *Geophysical Research Letters*, 5/2022–2024  
 Section Editor, *PLOS Climate*, 2021–2024  
 Editor, *Journal of Geophysical Research–Oceans*, 2015–2021  
 Associate Editor, *Journal of Geophysical Research–Oceans*, 2007–2014  
 Manuscript reviewer, *PNAS*, *Nature*, *Nature Geo.*, *Nature Energy*, *Sci. Adv.*, *AGU Adv.*, *Earth’s Future*,  
*Sci. Rep.*, *Nature Comms.*, *Eos*, *GRL*, *J. Clim.*, *Clim. Dyn.*, *Int. J. Clim.*, *Ocn. Dyn.*, *JGR–Ocn.*,  
*JGR–Atm.*, *Deep Sea Res.–I*, *Deep Sea Res.–II*, *Chinese J. Ocn. and Limnol.*, *Paleocn.*, *Atmósfera*,  
*Glob. Chg. Bio.*, *Ocn. Model.*, *Appl Geochem.*, *Int. J. Rem. Sens.*, *JAMES*, *Clim. Change*, *Hydrolog.*

*Processes, Nat. Sci. Rev. (Chinese Acad. Sci.), BAMS, Coral Reefs, Dyn. Atm. Ocn., Marine Policy, Env. Res. Lett., Front. Mar. Sci., Rev. Biol. Mar. Ocn., Glob. Planet. Change, Env. Sci. Atm., Oceanog., Wind Energy Sci., PLOS Neg. Trop. Diseases, PLOS Climate*

Panel reviewer, NASA–NOAA Ocean Surface Topog. Science Team, NOAA Climate Variability and Predictability, NASA Phys. Ocn., DOE Regional & Global Climate Modeling

Proposal reviewer, NSF, NOAA, NASA, DOE, NERC (UK), DAAD (Germany)

Book reviewer, Columbia University Press

*Professional committees, panels & working groups*

Member, MIT–WHOI Joint Program External Review Committee, 2024

Member, NOAA Cooperative Institute External Review Committee, 2024

Co–Chair, Joint US CLIVAR/NIH Working Group on Climate & Health, 2023–

Member, NASA Pacific Island Nations Working Group, 2023–

Member, Int. CLIVAR/CFMIP Working Group on Trop. Pacific SST Warming Patterns, 2023–  
Chair, UCAR Membership Committee, 2021–2023

Member, International CLIVAR Working Group on Tropical Pacific Decadal Variability, 2021–

Member, International CLIVAR Pacific Panel, 2021–2025

Member, Steering Committee, NSF RCN: Island Systems Integrated Consortium (ISIC), 2021–

Member, AGU Ocean Sciences Section Vice Chair Selection Committee, 2018

Member, UCAR SOARS Director Search Committee, 2018

Member, UCAR Membership Committee, 2017–2021

Member, US CLIVAR Scientific Steering Committee (SSC), 2016–2017

Core Member, US CLIVAR Changing Width of the Tropical Belt Working Group, 2016–2019

Co–Chair, US CLIVAR Process Study and Model Improvement (PSMI) Panel, 2016–2017

Member, US CLIVAR Process Study and Model Improvement (PSMI) Panel, 2015–2018

Member, Tropical Pacific Observing Sys. (TPOS) Planetary Boundary Layer Task Team, 2015–

Member, Tropical Pacific Observing Sys. (TPOS) Eastern Pacific Task Team, 2015–

Contributing Member, US CLIVAR ENSO Diversity Working Group, 2012–2015

Elected Member, Scientific Staff Executive Committee, WHOI, 2013–2014

Member, CMIP5 Task Force, MAPP Program, NOAA Climate Program Office, 2011–2014

Member, Chapter Affairs Committee, American Meteorological Society, 2006–2009

President, UW–Madison Chapter of the American Meteorological Society, 2003–2004

*Conference & workshop organizing*

Co–Convener, Merging Environmental and Health Data for Climate Resilience in the Face of Extreme Weather, AMS 16<sup>th</sup> Conference on Environment and Health, 2025

Co–Convener, Southeast Asia and the Indo-Pacific: Past, Present, and Future Climate and Environment, AGU Fall Meeting, 2024

Member, Planning Committee, 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Symposia of the Colorado Consortium on Climate Change & Health, 2018–2025

Moderator, Panel on Earth system prediction, predictability, and data assimilation, US CLIVAR Workshop on Tropical Pacific Observing Needs, 2021

Co–Convener, Dynamics of interbasin interactions from seasonal to centennial time scales, AGU Fall Meeting, 2019

Co–Chair, Scientific Organizing Committee, US CLIVAR Workshop: Bridging Sustained Observations & Data Assimilation for TPOS 2020, 2018

Co–Convener, CU Climate & Health Research Summit, 2018  
 Co–Convener, Mechanisms and Impacts of Natural and Anthropogenic Tropical Pacific Decadal Variations and Trends, AGU Fall Meeting, 2017  
 Member, Scientific Organizing Committee, US CLIVAR Workshop: Predictability of US West Coast Ecosystems Based on ENSO Forecasts, 2016  
 Co–Convener, US CLIVAR session on improved representation of physical processes in global models, AGU Fall Meeting, 2015  
 Co–Convener, The El Niño–Southern Oscillation continuum, AGU Fall Meeting, 2015  
 Co–Convener, The Response of the Tropical Pacific to Natural and Anthropogenic Forcing, AGU Fall Meeting, 2012  
 Co–Convener, Marine Regional Integrated Assessments: Observations, Predictions, and Uncertainty, WCRP Open Science Conference, 2011  
 Co–Chair, Regional Patterns of Global Warming, AGU Fall Meeting, 2010

*Other professional activities & memberships*

Role Model, NASA Inspires Futures for Tomorrow’s Youth (NIFTY), 2023  
 Mentoring Panel, NCAR Undergraduate Leadership Workshop, June 7–8, 2023  
 Member, Steering Committee, Mentoring Physical Oceanography Women to Increase Retention (MPOWIR), 2022–  
 Senior Mentor, MPOWIR Pattullo Conference, 2019  
 Workshop on Climate, Migration and Health (CU Population Center), 2018, 2019  
 NSF Hearts of G.O.L.D. (Geoscience Opportunities for Leadership in Diversity), 2017  
 NOAA Cooperative Institutes Exchange Program (OSU/CIOSS), 2006  
 Visiting Scientist, NOAA R/V Ka’imimoana (28 days, Pacific Ocean), 2006  
 NSF Preparing for an Academic Career in the Geosciences, 2005  
 NCAR Undergraduate Leadership Workshop, Boulder, CO, 2003  
 Member, American Geophysical Union, 2004–  
 Member, American Meteorological Society, 2003–

Teaching & Mentoring Activities

*Classroom teaching & administration*

Average rating by CU students: 5.7 / 6.0<sup>†</sup>  
 Co–Developed and Co–Taught *Design a Science Exhibit* (CU ATLS–CSCI 4519; Fall 2022)  
 Core Faculty, National Climate & Health Science Policy Fellowship (CU School of Medicine), 2021–  
 Co–Director, *Wilderness & Climate Medicine* (CU School of Medicine/ATOC 4500), 2017–  
 Developed/taught *Descriptive Physical Oceanography* (CU ATOC 4215; 3x)  
 Developed/taught *Physical Oceanography & Climate* (CU ATOC 4730/5730; 9x)  
 Taught *Seminar in Climate Dynamics* (CU ATOC 6020; many)  
 Developed/taught *Seminar in Climate Change & Human Health* (CU ATOC 6020; 1x)  
 Taught *Introduction to Oceanography* (CU ATOC/GEOL 3070; 5x)  
 Taught (including redesign) *Our Changing Environment* (CU ATOC 1060; 4x)  
 Developed/taught *Climate Variability & Diagnostics* (MIT 12.860; Spring 2012 & Spring 2014)

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<sup>†</sup> Mean “Instructor Overall” rating across all CU Faculty Course Questionnaires (FCQs) excluding “Seminar” courses (*i.e.*, ATOC 6020), 2015–2019. Standard deviation 0.3. Range 5.1–6.0. Ratings from 394 students across 13 courses.

Developed/taught *Climate Change & Society* (Boston College GE174; Fall 2010 & Fall 2011)

*Invited teaching engagements & guest lectures*

Several guest lectures for the National Climate & Health Science Policy Fellowship (CU School of Medicine), Climate & Health for Health Professionals Program (Columbia University), and various climate & health courses at the CU School of Medicine, Colorado School of Public Health, and CU Boulder Department of Geography, 2017–

Instructor, SOED Ocean–Star Short Course on ENSO, Hangzhou, China, Jun. 24–28, 2019

Guest lectures (periodic), Sea Education Association (SEA), Woods Hole, MA, 2014–15

*Postdoctoral mentoring*

Co–Mentor, CU Postdoctoral Research Associate Quinn Adams, 2025–

Co–Mentor, CU Postdoctoral Research Associate Yuan-Jen Lin, 2024–

Mentor, CU CIRES Postdoctoral Visiting Fellow Ulla Heede, 2022–2023

Mentor, CU CIRES Postdoctoral Research Associate Will Rush, 2022–2023

Mentor, CU Chancellor’s Postdoctoral Fellow for Diversity Sara Sanchez, 2020–2022

Mentor, CU CIRES Postdoctoral Visiting Fellow Dillon Amaya, 2020–2021

Mentor, CU CIRES Postdoctoral Visiting Fellow Ho–Hsuan Wei, Fall 2018–2021

Co–mentor, CU CIRES Postdoctoral Visiting Fellow Jody Wycech, Fall 2017–2019

Co–mentor, EOS/NTU Postdoctoral Research Fellow Dhrubajyoti Samanta, 2017–2021

Co–mentor, CU CIRES Postdoctoral Visiting Fellow Elizabeth Maroon, Fall 2016–2019

Mentor, CU CIRES Postdoctoral Research Associate Lei Zhang, 2015–2017

Mentor, CU CIRES Postdoctoral Research Associate Sloan Coats, 2015–2016

Co–mentor, WHOI Postdoctoral Scholar Laifang Li, 2014–2016

Co–mentor, WHOI Postdoctoral Scholar Luke Trusel, 2014–2016

Co–mentor, NOAA Climate & Global Change Postdoctoral Fellow Daniel Griffin, 2013–2014

*Graduate advising*

Advisor, CU ATOC doctoral student Maxwell Elling, 2024–

Advisor, CU ATOC doctoral student Amanda Bowden, 2023–

→ DOE Computational Science Graduate Fellowship (CSGF) Awardee, 2023

Co–Advisor, CU ATOC doctoral student Ethan Murray, 2023–2025

Advisor, CU Civil, Env. and Arch. Engineering master’s student Elizabeth Simon, 2023–2024

Advisor, CU ATOC doctoral student Sydney Kramer, 2022–2024

Advisor, CU ATOC doctoral student Mikell Warms, 2021–

→ NASA Future Invest. in NASA Earth & Space Sci. & Tech. (FINESST) Awardee, 2021

Advisor, CU ATOC doctoral student Megan Collins, 2021–2022

Advisor, CU Mechanical Engineering master’s student Gabriella Pagliuca, 2019–2021

Advisor, CU ATOC doctoral student Ryan Harp, 2016–2020

→ CIRES Graduate Student Research Awardee, 2019

Advisor, CU ATOC doctoral student Danielle Lemmon, 2015–2020

→ NSF Graduate Research Fellowship Program (GRFP) Awardee, 2017

Advisor, CU ATOC master’s student Christopher Heney, 2017–2019

Co–supervisor, CU ATOC doctoral student Stephanie Redfern, 2016

→ CIRES Graduate Student Research Awardee, 2016  
Advisor, CU ATOC graduate student Gabriela de la Cruz Tello, 2015–2016  
→ NSF Graduate Research Fellowship Program (GRFP) Awardee, 2015  
Co–advisor, MIT–WHOI doctoral student Julie Jakoboski, 2013–2019  
→ NASA Earth and Space Science Fellowship (ESSF) Awardee, 2017  
Co–advisor, MIT–WHOI doctoral student Elizabeth Drenkard, 2011–2014

*Undergraduate and other advising*

Supervisor to >15 undergraduates for independent study (CU ATOC 4900) since 2016  
Mentor to 1 CU Undergraduate Research Assistant (ZP) since 2025  
Mentor to 3 NCAR/SOARS Protégés (GD, JR, CR) since 2014  
Mentor to 3 CU UROP grantees (AC, AW, CZ) since 2017  
Mentor to 2 CU SMART interns (TR, ZC) since 2016  
Mentor to 2 CU undergraduate interns (AW, HP) since 2015  
Mentor to 2 CU ATOC REU interns (JC, ED) since 2021  
Mentor to 1 CU RECCS intern (CM), 2023  
Mentor to 1 CU ENVIS Senior Honors Thesis student (AW), 2019–2020  
Mentor to 1 McNair Scholar (KG), 2018  
Mentor to 2 BVSD (high school) Science Research Seminar students, 2016–2017  
Mentor to 3 WHOI undergraduate interns, 2010–2013  
Mentor to 3 FPS (high school) Science & Engineering Fair students, 2009–2010

*Membership on academic committees (not including direct advisees)*

Thesis committee member (current): L. Bayless, H. Bennett, T. Higgins, H. Kwasniewski, S. Leister, J. Sala, J. West, B. Molina, C. Wyburn–Powell, T. Tellez  
Thesis committee member (past): R. Brady, G. Elsworth, B. Frey, T. Gorte, S. Haney, E. Heijkoop, W. Kamp, R. Laiho, C. Lu, A. Nelson, H. Olivarez, S. Redfern, B. Rongstad  
Member, Preliminary Exam Committee, CU ENVIS doctoral student Hayley Kwasniewski, 2024  
Thesis examiner, University of New South Wales doctoral student Annette Stellema, 2023  
Thesis committee member, Columbia University doctoral student Carlos Martinez, 2021  
Thesis committee member, KAUST (Saudi Arabia) doctoral student Andrew Yip, 2018  
Comprehensive exam committee member, 10 CU doctoral students since 2016  
Senior honors thesis committee member, 3 CU undergraduates (LT, PK, NT) since 2018  
Chair of thesis proposal presentation, MIT–WHOI doctoral student Hannah Barkley, 2014  
General exam committee member, MIT–WHOI doctoral student Alice Alpert, 2013  
Thesis committee member, MIT–WHOI doctoral student Alison Criscitiello, 2011–2013  
Chair of thesis defense, MIT–WHOI doctoral student Philip Lane, 2011

*Teaching workshops and activities*

Trainer, CU/MissionZero Climate Across the Curriculum Faculty Workshop (Summer 2022)  
Participant, ASSETT Faculty Fellow Program (Spring 2017 through Spring 2018)  
Participant, FTEP Workshop, Teaching Large Classes (Sep. 28, 2016)  
Participant, FTEP Workshop, Getting Around Student Pushback (Sep. 13, 2016)  
Participant, Individual consultation, Center for STEM Learning (Aug. 19, 2015)

Participant, FTEP Workshop, Learning Goals and Course Design (Aug. 10, 2015)

Grants Awarded (not including external fellowships awarded to supervisees; see *Mentoring Activities*)

Aging and Health in a Changing Climate. NIH, \$792K, 2024–2026, Co–PI.

Bridging Seasonal Physical Climate/Weather Prediction with Disease Forecasts. NSF Climate Change Impacts on Human Health (C2H2), \$300K, 2024–2026, Co–PI.

Understanding Future Sea Level Change by Combining NASA satellite Observations and Climate Models Using Machine Learning. NASA Sea Level Change Science Team, \$984K, 2024–2028, Co–I.

Identifying predictors of climate resiliency in a malaria-endemic setting. Burroughs Wellcome Fund (BFW) Climate and Health Interdisciplinary Awards (CHI), \$375K, 2024–2027, Co–PI.

Coastal Upwelling Feedbacks and Biological Impacts. CIRES Innovative Research Program, \$30K, 2024–2025, PI.

Characterizing Northern Hemisphere Atmospheric Variability from Central American Wind Gap–Induced Upwelling. NSF Paleo Perspectives on Present and Projected Climate (P4CLIMATE), \$666K, 2023–2026, Co–PI.

Optimizing Coupled Boundary Layer Process Studies in the Tropical Pacific using High–Resolution Models and in situ Observations. NOAA Climate Variability and Predictability, \$890K, 2022–2025, Co–PI.

An integrated model–proxy approach to understanding Western US hydroclimate change since the last glacial period. NSF Paleo Perspectives on Climate Change, \$549K, 2021–2024, PI.

Spectral Analog Forecast Algorithm (SAFA). Venture Partners at CU Boulder, \$22K, 2020, PI.

Using Satellite Observations to Improve Our Understanding of Future Regional Sea Level Change and its Impacts. NASA Sea Level Change Science Team, \$1.3M, 2020–2025, Co–I.

Predicting Hurricane Risk along the United States East Coast in a Changing Climate. NSF Prediction of and Resilience against Extreme Events (PREEVENTS), \$2.1M, 2019–2025, Co–PI & Institutional PI.

Climate and Infant Mortality Rates on Tropical Islands. CIRES Innovative Research Program, \$25K, 2019–2020, PI.

Improved Understanding of air–sea interaction processes and biases in the Tropical Western Pacific using observation sensitivity experiments and global forecast models. NOAA Climate Variability and Predictability, \$567K, 2018–2020, Co–PI.

Combining satellite and acoustic remote sensing data with a numerical model to characterize the vertical structure of marine ecosystems. CIRES Innovative Research Program, \$25K, 2017–2018, PI.

Validating the Pacific Centennial Oscillation: Integrating models and paleo–data. Singapore Ministry of Education, \$524K, 2017–2020, Funded Collaborator.

Supplemental Funding for Tier 2 Project: Validating the Pacific Centennial Oscillation: Integrating models and paleo–data. Earth Obs. Singapore, \$199K, 2017–2018, Co–PI.

An Undercurrent of Change: Big Ocean, Big Data, and Tiny Islands. Alfred P. Sloan Foundation, \$50K, 2014–2017, PI.

Investigating feedbacks between climate and air travel at a global scale. Microsoft Research / White House Climate Data Initiative, \$40K, 2014–2015, PI.

Influence of climate change on larval connectivity in the Marianas and analytical training for local scientists. NOAA Coral Reef Conservation Program, \$60K, 2014, Co–PI.



Impacts of changing climate on Pacific island–based defense installations. DoD Strategic Environmental Research and Development Program (SERDP), \$2.5, 2013–2018, Co–PI & Institutional PI.

Repeat observations by gliders in the equatorial region (ROGER). NSF Physical Oceanography, \$1.7M, 2012–2016, Co–PI & Institutional PI.

An exploration of centennial climate variability in the tropics using coupled climate models and coral geochem. WHOI Ocean and Climate Change Institute, \$75K, 2011–2013, PI.

The American midsummer drought: Causal mechanisms and seasonal–to–interannual predictability. NOAA Modeling, Analysis, Predictions and Projections, \$445K, 2010–2013, PI.

Constraining thermal thresholds and projections of temperature stress on Pacific coral reefs over the 21st century: Method refinement and application. NSF Biological Oceanography, \$570K, 2010–2013, Co–PI.

Examining the effects of Arctic warming on coastal landforms and estuarine ecosystems. WHOI Ocean and Climate Change Institute, \$393K, 2010–2012, Co–PI.

An orographic conduit for Atlantic forcing of Pacific decadal climate variability. WHOI Ocean and Climate Change Institute, \$57K, 2009–2011, PI.

Understanding tropical–subtropical forcing and predictability of long–term North American drought in coupled models (CLIVAR DRICOMP). NSF Climate and Large–Scale Dynamics, \$30K, 2007–2008, PI.

#### Consulting and Contracting

United Nations Development Programme (Climate Sensitive Hydrogeological Model of Suriname River Basin), 2023–2024.

United Nations Development Programme (Enhanced climate resilience of the Trois–Rivières Watershed in Haiti II), 2022–2023.

United Nations Development Programme (National Adaptation Plan of Haiti), 2022.

United Nations Development Programme (Enhanced climate resilience of the Trois–Rivières Watershed in Haiti I), 2018.

United Nations Development Programme (Addressing Climate Vulnerabilities of the Water Sector in the Republic of Marshall Islands), 2017.

#### Outreach and Media Engagement

Written/online press coverage of research: The Atlantic, IFLScience, TIME, The Boston Globe, The Washington Post, NBC News, Discovery, The Weather Channel, Scientific American, Slate, Grist, Climate Central, Christian Science Monitor, Newsweek, CNBC, Gizmodo, Business Insider, PRI's The World, Scientific American Español, BBC (UK), BBC Earth (UK), The Independent (UK), The Telegraph (UK), The Guardian (UK), Carbon Brief (UK), La Repubblica (Italy), El Pais (Spain), Gazeta (Russia), The Australian (Australia), Science et Vie (France), Hakai (Canada), Wired, Popular Science, Daily Camera, Boulder Weekly, research highlights in *Nature*, *Science*, and *Eos*.

Expert written quotes: AP, Reuters/New York Times, Washington Post, San Francisco Chronicle, BBC News, Scientific American, Popular Science, Wall Street Journal, Carbon Brief (UK), *Nature*, Forbes, New Scientist, Mashable, Daily Camera, The National.

Television interviews: NBC Nightly News, The Today Show, MSNBC, NBC News Now, Univision, ABC/Denver 7 (2x), NBC/Denver 9, NBC/Tampa Bay, CBC (Canada), Global Eye (Israel), The Weather Channel/Earth Unlocked.

Radio interviews: NPR, BBC World Service, PRI's The World, BNR Nieuwsradio (Netherlands), ABC Radio (Australia), 938LIVE (Singapore), Colorado Public Radio, KUNC/Colorado Edition.

Facilitator, *Writing the Teaching Statement* (a workshop for NCAR ASP & CIRES VFP postdocs), National Center for Atmospheric Research (NCAR), Boulder, CO (Dec. 18, 2018).

Panelist, *Workshop on Academic Interviews* (a workshop for NCAR ASP & CIRES VFP postdocs), National Center for Atmospheric Research (NCAR), Boulder, CO (Apr. 15, 2021).

Speaker, *Communicating the Impact of Faculty Research, Scholarship, and Creative Work Workshop*, Research & Innovation Office (RIO), University of Colorado Boulder (May 16, 2018).

Webinar Panelist, Mentoring Physical Oceanography Women to Increase Retention (MPOWIR), Dec. 8, 2017.

Career Day Speaker, Eldorado K–8 School, Superior, CO (Dec. 6, 2017).

Career/Literacy Day Speaker, Rocky Top Middle School, Thornton, CO (Oct. 19, 2018).

Speaker, Front Range Film Festival: *Sonic Seas* (Apr. 21–23, 2017).

Contributor, The IUCN Red List of Threatened Species (*Spheniscus mendiculus*).

Facilitator, *A Career Development Workshop for NSF Geoscience Postdoctoral Researchers*, National Center for Atmospheric Research (NCAR), Boulder, CO (Mar. 11, 2016).

Video Interview, *More Than Scientists* (Feb. 19, 2018).

Reddit/Science *Ask Me Anything* (AMA), on behalf of the American Geophysical Union (AGU), doi: 10.15200/winn.145761.11608 (Mar. 10, 2016).

Keynote speaker, *National Ocean Sciences Bowl*, Boulder, CO (Feb. 27, 2016).

Scientific advisory for television documentary series, BBC/Atlantic Productions (*Blue Planet 2* and *Mission Galápagos*), 2016.

*El Niño and the Galápagos*. Invited contribution to the Climate.gov ENSO Blog (Dec. 1, 2015).

*Atlantic hurricane season starts June 1 – here's what forecasters are watching right now*. Invited article for *The Conversation* (May 18, 2021).

Panelist, *Living with Uncertainty*, The Institute for Science & Policy, Denver Museum of Nature & Science (Virtual, Dec. 7, 2022).

Panel Moderator, *Protecting Our Planet and Our Health*, Conference on World Affairs (Apr. 13, 2023).

Panelist, *Scholarly communication's response to the climate crisis and the role of open science*, Open Access Scholarly Publishing Association (Virtual, Sep. 13, 2023).

Panelist, *Climate Change and Publishing—How Publishers Can Make an Impact*, Society for Scholarly Publishing (Virtual, Oct. 11, 2023).

Panelist, *How to Write Exceptional and Respectful Reviews*, 2024 AGU Fall Meeting (Dec. 10, 2024).

Speaker (Climate Change: Causes and Symptoms for Mother Nature and Our Health), *Big Round Mama—Earth Day Event*, Kutandara, Boulder, CO (Apr. 22, 2025).

## Books

Future Uncertain: Overcoming Barriers to Effective Climate Policy, with L. Szentkirályi, Oxford University Press, under contract.

Physical Oceanography and Climate, First Edition, Cambridge University Press, ISBN 978-1-108-42386-1 (Hardback), ISBN 978-1-108-52959-4 (eBook), 2020.

Climate Modeling for Health Impacts (Chapter 13), in *Global Climate Change and Human Health: From Science to Practice*, Second Edition (Lemery *et al.*, eds), John Wiley & Sons, ISBN 978-1-119-66795-7 (Paperback), 2021.

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*Manuscripts in preparation*

- \* Elling, M. T., K. B. Karnauskas, M. Kowalczyk, A. G. Buchwald, and R. McCann (2025) Tropical Atlantic and Indian ocean temperatures shape malaria risk in Malawi through impacts on soil moisture.
- \* Bowden, A. F. M., K. B. Karnauskas, E. D. Maloney, and A. C. Subramanian (2025) Changes in Madden-Julian Oscillation Activity and Easterly Waves in a Warmer Climate.
- Joint US CLIVAR/NIH Working Group on Climate & Health (2025) Cross-Disciplinary Perspectives on Harnessing Climate Data in Health Research.
- \* Murray, E. J., K. B. Karnauskas, Z. Wang, *et al.* (2025) New Insights into Convective-Scale Clouds, Rainfall and Dynamics in the Tropical Cyclone Rainbands.

\*\* Samanta, D., S. Jevrejeva, K. B. Karnauskas, H. Palaniswamy, N. F. Goodkin, L. Y. Chew, B. Grandey, and B. P. Horton (2025) Dynamic sea–level change in Southeast Asia by the end of the 21st century.

*Invited or editorially reviewed articles*

- Wyssession, M. E., L. Beal, G. Caprarelli, K. Caylor, G. Destouni, J. Dixon, Q. Duan, S. A. Hauck II, K. B. Karnauskas, K. Lajtha, N. Lugaz, A. Montanari, H. Nguyen, J. K. Parrish, A. V. Rowan, I. R. Santos, T. Schildgen, A. Schubnel, L. Tschirhart, and M. A. Xenopoulos, 2025: The executive order “Restoring Gold Standard Science” is dangerous for America. *AGU Advances*, **6**(4), e2025AV002011, doi: 10.1029/2025AV002011.
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Seminars & Conference Proceedings (\* student–led; \*\* postdoc–led; presenter, if not me)

*Invited talks*

- Carbon Emissions and Public Health—A Direct Connection? *Climate Health Symposium 2025*, University of Maryland Baltimore, Baltimore, MD. Apr. 24, 2025.
- The Galápagos: A fluke of geology, ocean circulation, penguins and climate. *Paleoenvironmental Seminar*, Dept. of Earth Sciences, University of Southern California, Los Angeles, CA. Feb. 14, 2025.

Tropical Connections in a Warming World: Pacific Equatorial Dynamics to Atlantic Hurricane Risk. *AGU Atmospheric Sciences Turco Lecture, AGU Fall Meeting*, Washington, DC. Dec. 9–13, 2024.

Funding and Communication Gaps between Climate and Health Scientists: A Climate Science Perspective. *Workshop on Protecting Workers in the Face of Climate Change at the Policy & Research Nexus*, Aspen, CO. Nov. 10–15, 2024.

How fast is the mean upwelling in the equatorial Pacific? New observational insights and circulation biases of relevance to the simulated pattern of tropical warming. *Ocean & Climate Physics Seminar, LDEO of Columbia University*, Palisades, NY. Oct. 18, 2024.

The Galápagos: A Fluke of Geology, Ocean Circulation, Penguins and Climate. *Columbia Climate Center Lecture, LDEO of Columbia University*, Palisades, NY. Oct. 16, 2024.

Climate change in the tropical Pacific and its influence on Atlantic hurricanes. *University of Illinois CliMAS Colloquium*, Champaign, IL. Oct. 1, 2024.

\*\* Understanding the forced response of the tropical Pacific and how it relates to 21st century hydroclimate changes (U. Heede). *AGU Fall Meeting*, San Francisco, CA. Dec. 11–15, 2023.

Is the Ocean Circulation Collapsing? *C-SEF Annual Social and Environmental Futures Workshop*, Boulder, CO. Oct. 26, 2023.

\*\* Eastward Shift of Interannual Climate Variability in the South Indian Ocean Since 1950 (L. Zhang). *20<sup>th</sup> Ann. Mtg. of the Asia Oceania Geosci. Soc. (AOGS)*, Singapore. Jul. 30–Aug. 4, 2023.

\*\* Pacific warming pattern modulate future hydroclimatic changes across the Americas (U. Heede). *NCAR Climate Analysis Section Seminar*, Boulder, CO. May 10, 2023.

\*\* A stronger Pacific Walker circulation in the early 21st century: Is it a forced response to global warming and can we trust future CMIP6 model projections? (U. Heede). *NOAA Physical Sciences Laboratory Seminar*, Boulder, CO. May 9, 2023.

\*\* Oceanic Teleconnections Associated with ENSO and MJO (D. Amaya). *AMS Annual Meeting*, Denver, CO. Jan. 8–12, 2023.

Exploring the Impact of Ocean Data Assimilation for Improving Weather to Subseasonal Forecasts in the Tropical Indian and Pacific Oceans (A. Subramanian). *AMS Annual Meeting*, Denver, CO. Jan. 8–12, 2023.

Overview of the physical oceanographic and modern climatic setting of the Galápagos. *Island Systems Integration Consortium*, University of Cincinnati, Cincinnati, OH. Oct. 24–28, 2022.

Upwelling and Equatorial Islands: Old Theories and the Ocean Data Revolution. *Department of Earth, Environmental and Planetary Sciences, Rice University*, Houston, TX. Sep. 8, 2022.

Upwelling in the Equatorial Pacific Ocean. *Department of Earth and Planetary Sciences Colloquium, Harvard University*, Cambridge, MA. May 23, 2022.

Review of SST Pattern Evolution in the Instrumental Record of the 20th Century. *US CLIVAR Workshop on the Pattern Effect: Coupling of SST Patterns, Radiative Feedbacks, and Climate Sensitivity*, Boulder, CO. May 10–13, 2022.

The Galápagos: A Fluke of Geology, Ocean Circulation, Penguins and Climate. *Harvard University Center for the Environment*, Cambridge, MA. Mar. 10, 2022.

The equatorial current system from underwater gliders off the Galápagos Islands with climate and ecosystem implications. *Earth & Planetary Sciences Seminar, American Museum of Natural History*, New York, NY. Feb. 23, 2022.

The equatorial current system from underwater gliders off the Galápagos Islands. *University of Michigan Climate & Space Sciences & Engineering (CLaSP) Seminar*, Ann Arbor, MI. Sep. 9, 2021.

Climate and Health. *US CLIVAR Predictability, Predictions, and Applications Interface (PPAI) Panel Summer Meeting*. Jul. 27, 2021 (Virtual).

Patient: Earth. *Noon Conference Series, Internal Medicine Residency Program, Massachusetts General Hospital*, Boston, MA. Nov. 13, 2020 (Virtual).

The feedback of cold wakes on tropical cyclones. *Colorado State University*, Fort Collins, CO. Sep. 23, 2020 (Virtual).

Climate Change and Medicine. 46<sup>th</sup> *Annual Course on Renal Disease & Electrolyte Disorders*, Aspen, CO. Jul. 25, 2019.

The Galápagos: A Fluke of Geology, Ocean Circulation, Penguins and Climate. *School of Oceanography Seminar, Shanghai Jiao Tong University*, Shanghai, China. Jun. 13, 2019.

The feedback of hurricane cold wakes on tropical cyclones. *School of Oceanography Seminar, Shanghai Jiao Tong University*, Shanghai, China. Jun. 10, 2019.

Data Integration from a Climate Perspective (keynote). *CUPC Workshop on Climate, Migration and Health*, Boulder, CO. May 20–21, 2019.

The feedback of hurricane cold wakes on tropical cyclones. *King Abdullah University of Science and Technology*, Thuwal, Saudi Arabia. Nov. 6, 2018.

The Galápagos: A Fluke of Geology, Ocean Circulation, Penguins and Climate. *School of Oceanography Seminar, University of Washington*, Seattle, WA. Oct. 10, 2018.

Future Freshwater Stress on Small Islands: Population, Aridity and Global Warming Targets. *SERDP/ESTCP Symposium*, Washington, DC. Nov. 28, 2017.

Equatorial Islands and the Continua of Ocean–Climate Variability. *Earth Observatory Singapore Seminar, Nanyang Technological University*, Singapore. May 9, 2017.

Equatorial Islands and the Continua of Ocean–Climate Variability. *AOS Colloquium, University of Wisconsin*, Madison, WI. Apr. 10, 2017.

Dynamical Theory for ENSO Diversity. *King Abdullah University of Science and Technology*, Thuwal, Saudi Arabia. Mar. 9, 2017.

The Impact of Climate Change on Global Wind Energy: A Tale of Two Hemispheres. *Earth Science and Engineering Seminar, King Abdullah University of Science and Technology*, Thuwal, Saudi Arabia. Mar. 8, 2017.

Complexity of Tropical Pacific Ecosystem and Biogeochemistry: Diurnal to Decadal, Plankters to Penguins. (R. Murtugudde). *AGU Fall Meeting*, San Francisco, CA. Dec. 12–16, 2016.

Atlantic hurricanes and outgoing longwave radiation over Africa: From seasonal predictions to climate change projections. *Atmospheric Science Colloquium, Colorado State University*, Fort Collins, CO. Nov. 11, 2016.

\*\* Implications of North Atlantic Sea Surface Salinity for Summer Precipitation over the US Midwest: Mechanisms and Predictive Value (L. Li). *AGU Fall Meeting*, San Francisco, CA. Dec. 14–18, 2015.

El Niño and climate change and their effects on air travel and Atlantic hurricanes. *Sea Education Association*, Woods Hole, MA. Sep. 4, 2014.

CMIP5 climate models, experiments, and 21<sup>st</sup> century projections. *Morss Colloquium, Woods Hole Oceanographic Institution*, Woods Hole, MA. May 6, 2014.

An undercurrent of change in the Pacific: Climate dynamics with ecosystem impacts. *CIRES, University of Colorado Boulder*, Boulder, CO. Feb. 17, 2014.

Climate dynamics and the equatorial Pacific Ocean. *Sea Education Association*, Woods Hole, MA. Feb. 12, 2014.

An undercurrent of change in the Pacific: Implications for coral reef ecosystems. *OneNOAA Science Seminar, NOAA*, Silver Spring, MD. Jan. 30, 2014.

An undercurrent of change in the equatorial Pacific: Physical mechanisms and ecosystem implications. *ESSIC, University of Maryland*, College Park, MD. Jan. 28, 2014.

The Hadley circulation: Dynamics, asymmetry, and CMIP5 projections. *Symposium on Climate Change: Recent Discoveries and Future Challenges, LDEO of Columbia University*, Palisades, NY. May 21–23, 2013.

La canícula (midsummer drought): Underlying mechanisms, interannual variability, and forced response. *AGU Meeting of the Americas*, Cancun, Mexico. May 14–17, 2013.

The ocean's role in centennial tropical climate variability and change. *LDEO of Columbia University*, Palisades, NY. Feb. 27, 2012.

A dynamical mechanism for ocean ecosystem refuge amidst tropical warming. *PAOC/EAPS, Massachusetts Institute of Technology*, Cambridge, MA. Dec. 7, 2011.

Climate dynamics and change in the equatorial Pacific with implications for marine ecosystems. *Earth & Environmental Sciences, Boston College*, Chestnut Hill, MA. Sep. 28, 2011.

Tropical Pacific Ocean mean circulation: A model–data intercomparison and implications for climate change projections. *AGU Fall Meeting*, San Francisco, CA. Dec. 13–18, 2010.

Observed and simulated response of the equatorial Pacific to global warming. *Meteorology and Physical Oceanography, RSMAS, University of Miami*, Miami, FL. May 15, 2009.

Dynamics of the equatorial Pacific: From the Galápagos to global warming. *Geology & Geophysics, Woods Hole Oceanographic Institution*, Woods Hole, MA. Apr. 29, 2009.

The effect of the Galápagos Islands on the mean state of the equatorial Pacific Ocean and ENSO dynamics. *PODS V Symposium*, Honolulu, HI. Oct. 6, 2008.

The tropical Pacific: Interesting aspects of variability, and key questions with respect to long-term N. American drought. *LDEO of Columbia University*, Palisades, NY. Feb. 8, 2007.

Interannual variability of SST and chlorophyll in the east Pacific warm pool: High-resolution satellite observations. *CIOSS, Oregon State University*, Corvallis, OR. Sep. 25, 2006.

#### *Contributed talks*

- \*\* A Multi-Country Analysis of Vulnerability to Climate-Driven Pathogen Specific Moderate to Severe Diarrheal Disease (M. Kowalczyk). *Keystone Symposium on Climate Change & Infectious Disease Threats*, Hannover, Germany. Jun. 23–26, 2025.
- Strengthened Influence of Atlantic Niño on ENSO in a Warming Climate (L. Zhang). *EGU General Assembly 2024*, Vienna, Austria. Apr. 27–May 2, 2025.
- Upwelling in the Equatorial Pacific Ocean: Bridging Historical and Modern Measurements. *El Niño–Southern Oscillation: Past, Present, and Future. Celebrating the Scientific Legacy of Klaus Wyrtki*, Honolulu, HI. Mar. 12–24, 2025.
- Dynamics of a Persistent Gulf Stream Heatwave. *AGU Fall Meeting 2024*, Washington, DC. Dec. 9–13, 2024.
- Pan-pacific low frequency modes of climate variability since 1950 and their influence on altimeter-era sea level trends (C. Little). *AGU Fall Meeting 2024*, Washington, DC. Dec. 9–13, 2024.
- \*\* Impact Of Climate Model Resolution On Sterodynamic Sea-Level Projections Across Southeast Asia (D. Samanta). *AGU Fall Meeting 2024*, Washington, DC. Dec. 9–13, 2024.
- Biases in tropical ocean circulation of possible relevance to the tropical SST warming pattern. *International CLIVAR TROPICS Workshop*, Hamburg, Germany. Sep. 17–20, 2024.
- \*\* Historical Sea Level Response to Volcanic Forcing Estimated from Large–Ensemble Global Climate Model Simulations (D. Samanta). *21<sup>st</sup> Ann. Mtg. of the Asia Oceania Geosci. Soc. (AOGS)*, Pyeongchang, South Korea. Jun. 23–Jun. 28, 2024.
- \* Changes in Madden–Julian Oscillation Activity and Easterly Waves in a Warmer Climate (A. Bowden). *AMS 36<sup>th</sup> Conference on Hurricanes and Tropical Meteorology*, Long Beach, CA. May 6–10, 2024.
- \* Investigating Convective Scale Variability in Tropical Cyclone Rainband Clouds and Thermodynamics using Compact Raman Lidar Measurements (E. Murray). *AMS 36<sup>th</sup> Conference on Hurricanes and Tropical Meteorology*, Long Beach, CA. May 6–10, 2024.



- Mechanisms of Tropical Pacific Decadal Variability (A. Capotondi). *EGU General Assembly 2024*, Vienna, Austria. Apr. 14–19, 2024.
- \*\* Understanding the tropical Pacific barrier layer and halocline biases and response to global warming in CMIP6 models (U. Heede). *AGU Ocean Sciences Meeting*, New Orleans, LA. Feb. 19–23, 2024.
- \* Tropical Cyclone Dynamics Inferred from Aircraft Eye and Eyewall Cloud Observations (E. Murray). *AGU Fall Meeting*, San Francisco, CA. Dec. 11–15, 2023.
- Climatic controls on the tropical Pacific–Atlantic interbasin pressure gradient: The view from glacial–interglacial changes in Central American gap winds (P. Rafter). *AGU Fall Meeting*, San Francisco, CA. Dec. 11–15, 2023.
- Evaluating the role of precipitation intermittency on flooding using observations and models (B. Livneh). *AGU Fall Meeting*, San Francisco, CA. Dec. 11–15, 2023.
- On the Drivers of Regional Sea Level Change over the Altimeter Era. *NASA Sea Level Change Team Workshop*, Pasadena, CA (Caltech). Sep. 25, 2023.
- The Impact of Eastern Pacific Warming on Future North Atlantic Tropical Cyclogenesis. *Columbia University*, New York, NY (Virtual). Sep. 20, 2023.
- \*\* Dynamic sea–level change in Southeast Asia by the end of the 21st century (D. Samanta). *9<sup>th</sup> COAA Int. Conference on Atmosphere, Ocean, and Climate Change*, Singapore. Jul. 27–28, 2023.
- Satellite Measurements of Sea Level Change: What are they telling us about our future? (S. Nerem). *8<sup>th</sup> Int. Union of Geodesy & Geophysics (IUGG) Gen. Assembly*, Berlin, Germany. Jul. 17–21, 2023.
- Unraveling Regional Patterns of Sea Level Change over the Altimeter Era (S. Nerem). *EGU General Assembly 2023*, Vienna, Austria. Apr. 23–28, 2023.
- Unraveling Regional Patterns of Sea Level Change over the Altimeter Era. *CLIVAR Joint Workshop on the Tropical Pacific and its Interbasin Interaction*, Melbourne, Australia. Feb. 13–17, 2023.
- Pre–Field Modeling Studies in Support of TPOS Process Studies: A Focus on the Warm Pool Edge. *15<sup>th</sup> Session of International CLIVAR Pacific Panel*, Melbourne, Australia. Feb. 13–17, 2023.
- Unraveling Regional Patterns of Sea Level Change over the Altimeter Era (S. Nerem). *AGU Fall Meeting*, Chicago, IL. Dec. 12–16, 2022.
- Upwelling and Equatorial Islands: Old Theories and the Ocean Data Revolution. *Department of Atmospheric and Oceanic Sciences, University of Colorado*, Boulder, CO. Sep. 2, 2022.
- \*\* Detecting Anthropogenic Footprints On Sea Level Rise Over Indo–Pacific Warm Pool Region (D. Samanta). *WCRP Sea Level Conference*, Singapore. July 12–16, 2022.
- \* Role of Near–Surface Dynamics and Air–Sea Interactions in Subseasonal ITCZ variability over the East Pacific (I. Ganguly). *AMS 23<sup>rd</sup> Conference on Atmospheric and Oceanic Fluid Dynamics*, Breckenridge, CO. Jun. 13–17, 2022.
- \*\* Diversity in the Persistence of El Niño events over the Last Millennium (S. Sanchez). *AGU Ocean Sciences Meeting*, Honolulu, HI. Feb. 24–Mar. 4, 2022.
- \*\* Tropical Pacific subseasonal forecast: the role of mean state biases, model errors, and ocean data assimilation (H.–H. Wei). *AGU Ocean Sciences Meeting*, Honolulu, HI. Feb. 24–Mar. 4, 2022.
- \*\* Subseasonal–to–seasonal forecast skill in the California Current System and its connection to coastal Kelvin waves (D. Amaya). *AGU Ocean Sciences Meeting*, Honolulu, HI. Feb. 24–Mar. 4, 2022.
- \*\* Air–Sea Coupling Shapes North American Hydroclimate Response to Ice Sheets During the Last Glacial Maximum (D. Amaya). *AGU Fall Meeting*, New Orleans, LA. Dec. 13–17, 2021.
- \*\* Diversity in the persistence of El Niño events over the last millennium (S. Sanchez). *AGU Fall Meeting*, New Orleans, LA. Dec. 13–17, 2021.

Vietnam climate experienced multi-decadal variability over the past 400 years, and decoupling of seasonal SST with anthropogenic warming (N. Goodkin). *14<sup>th</sup> International Coral Reef Symposium (ICRS)*, Bremen, Germany (Virtual). Jul. 19–23, 2021.

\* Toward Using Climate to Increase Lead-Time of a Malaria Early Warning System in Mozambique (R. Harp). *4th Planetary Health Annual Meeting*, Virtual, Apr. 25–30, 2021. (Selected as one of the ‘Best Abstracts in Planetary Health’ to be featured in *The Lancet Planetary Health*.)

\*\* Role of Regional Ocean Dynamics in Dynamic Sea Level Projections by the end of the 21st Century over Southeast Asia (D. Samanta). *EGU General Assembly 2021*, Virtual. Apr. 19–30, 2021.

The Pacific Equatorial Undercurrent in Three Generations of Global Climate Models and Glider Observations. *AGU Fall Meeting*, Virtual. Dec. 1–17, 2020.

\*\* The Impact of Climate Change on Mixed Layer Depth and its Role in Shaping Past and Future Marine Heatwaves (D. Amaya). *AGU Fall Meeting*, Virtual. Dec. 1–17, 2020.

The association between climate and safe drinking water use: A multi-country analysis (A. Buchwald). *Annual Meeting of the American Society of Tropical Medicine & Hygiene*, Virtual. Nov. 15–19, 2020.

\*\* Tropical Pacific Air–sea Interaction Processes and Biases in CESM2 (H.–H. Wei). *AGU Ocean Sciences Meeting*, San Diego, CA. Feb. 16–21, 2020.

\* El Niño pattern diversity and interactions with mean state trends (D. Lemmon). *AMS Annual Meeting*, Boston, MA. Jan. 13–17, 2020.

\* Projections of Future Changes in United States Violent Crime Under Global Warming (R. Harp). *AMS Annual Meeting*, Boston, MA. Jan. 13–17, 2020.

\*\* La Niña's Diminishing Fingerprint on the Indian Summer Monsoon (D. Samanta). *AGU Fall Meeting*, San Francisco, CA. Dec. 9–13, 2019.

Regional Attribution of Tropical Expansion (P. Staten). *AGU Fall Meeting*, San Francisco, CA. Dec. 9–13, 2019.

\* Estimates of Upwelling in the Vicinity of the Galápagos Archipelago from Glider Observations (J. Jakoboski). *AGU Fall Meeting*, Washington, DC. Dec. 10–14, 2018.

The feedback of hurricane cold wakes on tropical cyclones. *NCAR Climate & Global Dynamics Seminar*, Boulder, CO. Nov. 27, 2018.

The Galápagos: A Fluke of Geology, Ocean Circulation, Penguins and Climate. *Geology Colloquium, University of Colorado Boulder*, Boulder, CO. Mar. 21, 2018.

Blending satellite observations with water-column sonar data from a national archive to characterize the distribution of marine life (C. Wall). *ICES Working Group on Fisheries, Acoustics, Science and Technology (WGFASST)*, Seattle, WA. March 20–23, 2018.

The Galápagos: A Fluke of Geology, Ocean Circulation, Penguins and Climate. *Institute of Arctic and Alpine Research Seminar, University of Colorado Boulder*, Boulder, CO. Mar. 19, 2018.

Climate Change: The Science and the Concerns. *1<sup>st</sup> Symposium of the Colorado Consortium on Climate Change & Health, University of Colorado Anschutz Medical Campus*, Aurora, CO. Mar. 12, 2018.

El Niño, El Único. *AGU Ocean Sciences Meeting*, Portland, OR. Feb. 11–16, 2018.

Regional ocean variability off Galápagos and CA during 2014–2017 as observed by underwater gliders (D. Rudnick). *AGU Ocean Sciences Meeting*, Portland, OR. Feb. 11–16, 2018.

Role of the East Asian Winter Monsoon in Wind Driven, Indo–Pacific Ocean Circulation (N. Goodkin). *AGU Ocean Sciences Meeting*, Portland, OR. Feb. 11–16, 2018.

Southward shift of the global wind energy resource under high carbon dioxide emissions. *National Renewable Energy Laboratory*, Boulder, CO. Dec. 20, 2017.

Modulation of Stratospheric Kelvin Wave Activity from the Troposphere (G. Kiladis). *AMS 19<sup>th</sup> Conference on the Middle Atmosphere*, Portland, OR. Jun. 26–30, 2017.

- \*\* Variability in AMOC strength modifies the Northern Hemisphere surface temperature response in the CESM Large Ensemble (E. Maroon). *2017 US CLIVAR AMOC Science Team Meeting*, Santa Fe, NM. May 23–25, 2017.
- \*\* Global warming and tropical Pacific sea surface temperature: Why models and observations do not agree. (S. Coats). *EGU General Assembly 2017*, Vienna, Austria. Apr. 23–28, 2017.
- Climate Change Impacts with Human Health Implications. *CU Consortium of Climate Change and Human Health Speaker Series*, University of Colorado Anschutz Medical Campus, Aurora, CO. Apr. 14, 2017.
- \*\* Variability in AMOC strength modifies the North Hemisphere surface temperature response in the CESM LENS simulations (E. Maroon). *NCAR Community Earth System Model (CESM) Ocean Model Working Group Meeting*, Boulder, CO. Feb. 28, 2017.
- Detecting the influence of the Hadley circulation on Atlantic hurricanes through OLR. *NCAR Climate & Global Dynamics Seminar*, Boulder, CO. Jan. 31, 2017.
- Impacts of Climate Change on Global Wind Resources in a CMIP5 Ensemble (J. Lundquist). *8<sup>th</sup> Conference on Weather, Climate, Water, and the New Energy Economy, 97<sup>th</sup> Annual Meeting of the AMS*, Seattle, WA. Jan. 22–26, 2017.
- \*\* An ocean dynamical thermostat—dominant in observations, absent in climate models (S. Coats). *AGU Fall Meeting*, San Francisco, CA. Dec. 12–16, 2016.
- Reconstruction of Monsoon Driven South China Sea Surface Ocean Circulation using Coral  $\Delta 14C$ . (N. Goodkin). *AGU Fall Meeting*, San Francisco, CA. Dec. 12–16, 2016.
- The role of the Hadley circulation in modulating Atlantic hurricane activity. *US CLIVAR Working Group on Changing Width of the Tropical Belt Workshop*, Bloomington, IN, Oct. 26–27, 2016.
- Underwater glider observations of the ongoing El Niño (D. Rudnick). *AGU Ocean Sciences Meeting*, New Orleans, LA, Feb. 21–26, 2016.
- Galápagos Penguins in a Warming World: An Exemplar of Biological Loopholes in the Anthropocene. *AGU Fall Meeting*, San Francisco, CA. Dec. 14–18, 2015.
- Climate Change on Tropical Islands: Dynamics and Impacts. *NCAR Climate & Global Dynamics Seminar*, Boulder, CO, Oct. 20, 2015.
- \*\* Implications of North Atlantic Sea Surface Salinity for Summer Precipitation over the US Midwest: Mechanisms and Predictive Value (L. Li). *NOAA 40<sup>th</sup> Climate Diagnostics and Prediction Workshop*, Denver, CO, Oct. 26–29, 2015.
- On the Dynamics of the Hadley Circulation and Subtropical Drying. *AGU Chapman Conference “The Width of the Tropics: Climate Variations and Their Impacts,”* Santa Fe, NM, Jul. 27–31, 2015.
- \*\* North Atlantic Salinity as a Predictor of Sahel Precipitation (L. Li). *AGU Chapman Conference “The Width of the Tropics: Climate Variations and Their Impacts,”* Santa Fe, NM, Jul. 27–31, 2015.
- \* Links between changes in the Hadley Circulation and Oceanic Oxygen Minimum Zones (G. de la Cruz Tello). *AGU Chapman Conference “The Width of the Tropics: Climate Variations and Their Impacts,”* Santa Fe, NM, Jul. 27–31, 2015.
- Predicting Minnesota Rainfall Using Atlantic Ocean Salinities (R. W. Schmitt). *AMS 20<sup>th</sup> Conf. on Atmospheric and Oceanic Fluid Dynamics*, Minneapolis, MN. Jun. 15–19, 2015.
- Strong sea surface cooling in the eastern equatorial Pacific and implications for Galápagos Penguin conservation. *LDEO of Columbia University*, Palisades, NY. Jun. 4, 2015.
- The interactive relationship between air travel and climate. *NOAA Earth System Research Laboratory, Physical Sciences Division Seminar*, Boulder, CO. May 29, 2015.
- Ocean–atmosphere interaction in the eastern equatorial Pacific: impact of the Galápagos and ecosystem implications. *Laboratoire d'Océanographie et du Climat (LOCEAN), Institut Pierre Simon Laplace (IPSL)*, Paris, France, Mar. 30, 2015.

Repeat Observations by Gliders in the Equatorial Region west of the Galápagos Archipelago – Preliminary Observations and Modeling Studies (W. B. Owens). *Ocean Scale Interactions*, Brest, France. Jun. 25, 2014.

An undercurrent of change: Assessing potential natural mitigation of ocean warming at the U.S. Pacific Remote Islands. *AGU Ocean Sciences Meeting*, Honolulu, HI. Feb. 24–28, 2014.

Biophysical responses near equatorial islands in the western Pacific Ocean during El Niño/La Niña transitions (M. M. Gierach). *AGU Ocean Sciences Meeting*, Honolulu, HI. Feb. 24–28, 2014.

Proxies and observations of temperature and salinity change differ in the Caribbean 1900–2000: A challenge to modelers, oceanographers, and paleoceanographers (B. E. Rosenheim). *AGU Ocean Sciences Meeting*, Honolulu, HI. Feb. 24–28, 2014.

Persistent multidecadal variability in ocean climate recorded in the skeletal bands of tropical corals (A. L. Cohen). *11<sup>th</sup> Int'l. Conf. on Paleocn.*, Barcelona, Spain. Sep. 1–6, 2013.

Can we differentiate canonical El Niño from Modoki? *Physical Oceanography*, Woods Hole Oceanographic Institution, Woods Hole, MA. Mar. 19, 2013.

El Niño typology and trends: Insight from three decades of weekly SST observations. *US CLIVAR ENSO Diversity Workshop*, Boulder, CO. Feb. 6–8, 2013.

The American Midsummer Drought in CMIP5: Multi-Model Evaluation and Projections. *AGU Fall Meeting*, San Francisco, CA. Dec. 3–7, 2012.

The American Midsummer Drought in CMIP5: Multi-Model Evaluation and Projections. *NOAA Climate Program Office MAPP Webinar*. Nov. 13, 2012.

Simulated patterns of unforced centennial-scale climate variability in the tropical Pacific (J. E. Smerdon). *AGU Fall Meeting*, San Francisco, CA. Dec. 5–9, 2011.

Climate dynamics and change in the equatorial Pacific: Implications for marine ecosystems. *Biology*, Woods Hole Oceanographic Institution, Woods Hole, MA. Oct. 13, 2011.

Observations of Galápagos Archipelago–EUC interaction: The current state-of-our knowledge. *AGU Ocean Sciences Meeting*, Portland, OR. Feb. 22–26, 2010.

Anthropogenic climate change in the equatorial Pacific. *Earth System Science Interdisciplinary Center*, University of Maryland, College Park, MD. Oct. 19, 2009.

Revisiting the EUC–Galápagos interaction: Observations and paleo implications. *Oceanography Section Seminar*, NCAR, Boulder, CO. Oct. 12, 2009.

The Galápagos Islands and the EUC: Time for a reality check? *Physical Oceanography*, Woods Hole Oceanographic Institution, Woods Hole, MA. Sep. 8, 2009.

The response of the equatorial Pacific Ocean to global warming. *AGU Fall Meeting*, San Francisco, CA. Dec. 15–19, 2008.

The effect of the Galápagos Islands on the mean state and ENSO dynamics. *Integrative Grad. Edu. and Res. Training (IGERT)*, Columbia University, New York, NY. Feb. 5, 2008.

Interannual variability of SST in the east Pacific warm pool. *International Union of Geodesy and Geophysics (IUGG)*, Perugia, Italy. Jul. 2–13, 2007.

Low-frequency variability and remote forcing of gap winds in the eastern tropical Pacific. *International Union of Geodesy and Geophysics (IUGG)*, Perugia, Italy. Jul. 2–13, 2007.

The effect of the Galápagos Islands on the Pacific cold tongue and ENSO. *International Union of Geodesy and Geophysics (IUGG)*, Perugia, Italy. Jul. 2–13, 2007.

The incredible shrinking Iguana: Impact of Galápagos (R. Murtugudde). *AGU Joint Assembly*, Acapulco, Mexico. May 22–25, 2007.

Improvements to the equatorial Pacific cold tongue region in an OGCM: Possible implications for the NCEP GODAS/CFS. *NOAA NCEP/EMC*, Camp Springs, MD. Jun. 20, 2006.

Plans for the GOES–R series and comparing the Advanced Baseline Imager to that on METEOSAT–8 (J. Gurka). *European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) Meteorological Satellite Conference*, Prague, Czech Republic. May 31–Jun. 4, 2004.

#### *Posters*

- \*\* A Multi-Country Analysis of Vulnerability to Climate-Driven Pathogen Specific Diarrheal Disease (M. Kowalczyk). *International Society for Environmental Epidemiology (ISEE) Annual Meeting*, Atlanta, GA. Aug. 17–20, 2025.
- \* Changes in Madden-Julian Oscillation Activity and Easterly Waves in a Warmer Climate (A. Bowden). *DOE CSGF Annual Program Review*, Washington, DC. Jul. 13–17, 2025.
- Co-creation of a Museum Exhibit about Climate Change with a Diverse Team of Students, Scientists, Educators, and Museum Professionals (B. Hatheway). *AMS Annual Meeting*, New Orleans, LA. Jan. 12–16, 2025.
- Diagnosing Regional Sea Level Change Over the Altimeter Era. *AGU Fall Meeting 2024*, Washington, DC. Dec. 9–13, 2024.
- Ocean Surface Temperatures Drive Malaria Incidence in Malawi, Evidence from 20 Years of Data (A. Buchwald). *AGU Fall Meeting 2024*, Washington, DC. Dec. 9–13, 2024.
- \* The response of Galápagos upwelling to CO<sub>2</sub> forcing (M. Warms). *AGU Fall Meeting 2024*, Washington, DC. Dec. 9–13, 2024.
- \*\* Air-Sea Transition Zone Processes Driving Mean State and Climate Variability Model Biases in Tropical Pacific (Y. Lin). *AGU Fall Meeting 2024*, Washington, DC. Dec. 9–13, 2024.
- Co-creation of a Museum Exhibit about Climate Change with a Diverse Team of Students, Scientists, Educators, and Museum Professionals (B. Hatheway). *AGU Fall Meeting 2024*, Washington, DC. Dec. 9–13, 2024.
- High resolution simulations dramatically improve predictions of low-frequency Pacific basin sea level variability (C. Little). *US CLIVAR Workshop on Confronting Earth System Model Trends with Observations*, Boulder, CO. Mar. 13–15, 2024.
- Climate Modeling and Downscaling in Support of Haiti’s National Adaptation Plan. *2<sup>nd</sup> Symposium of the Colorado Consortium on Climate Change & Health, University of Colorado Anschutz Medical Campus*, Aurora, CO. Mar. 7, 2024.
- The Influence of the 1991 Eruption of Mt Pinatubo on Global and Regional Sea Level Rise (J. Fasulo). *Ocean Surface Topography Science Team Meeting*, San Juan, PR. Nov. 7–11, 2023.
- Dynamics of a Persistent Gulf Stream Heatwave. *CIRES Rendezvous 2023*, Boulder, CO. May 16, 2023.
- Dynamics of a Persistent Gulf Stream Heatwave. *US CLIVAR Mesoscale and Frontal–Scale Air–Sea Interactions Workshop*, Boulder, CO. Mar. 6–8, 2023.
- \* The Regional Atmospheric Response to the North Atlantic Warming Hole in a 1° Atmospheric General Circulation Model (S. Kramer). *US CLIVAR Mesoscale and Frontal–Scale Air–Sea Interactions Workshop*, Boulder, CO. Mar. 6–8, 2023.
- \* Ocean Dynamics and Air–Sea Interaction in the Galapagos Cold Pool at Subseasonal to Interannual Time Scales (M. Warms). *US CLIVAR Mesoscale and Frontal–Scale Air–Sea Interactions Workshop*, Boulder, CO. Mar. 6–8, 2023.
- \* Understanding Near–Surface Dynamics and Air–Sea Interactions in Subseasonal ITCZ Variability Over the East Pacific Using ERA5 Reanalysis (I. Ganguly). *AGU Fall Meeting*, Chicago, IL. Dec. 12–16, 2022.
- \*\* Detection and Attribution of Historical Sea Level Changes over the Indo–Pacific Warm Pool Region (D. Samanta). *AGU Fall Meeting*, Chicago, IL. Dec. 12–16, 2022.

- Central American topographic gap wind changes since the last ice age (P. Rafter). *AGU Fall Meeting*, Chicago, IL. Dec. 12–16, 2022.
- What The Satellite Altimetry Record Of Regional Sea Level Change Is Telling Us About The Future (S. Nerem). *WCRP Sea Level Conference*, Singapore. July 12–16, 2022.
- A non-ENSO-like pattern of low-frequency internal variability in the tropical Pacific simulated by virtually all coupled models since CMIP3. *US CLIVAR Workshop on the Pattern Effect: Coupling of SST Patterns, Radiative Feedbacks, and Climate Sensitivity*, Boulder, CO. May 10–13, 2022.
- A novel identification of anthropogenic changes in South China Sea seasonal sea surface temperatures over the past 400 years (N. Goodkin). *AGU Ocean Sciences Meeting*, Honolulu, HI. Feb. 24–Mar. 4, 2022.
- \*\* Tropical Pacific subseasonal forecast: the role of mean state biases, model errors, and ocean data assimilation (H.-H. Wei). *AGU Fall Meeting*, New Orleans, LA. Dec. 13–17, 2021.
- \*\* Tropical Pacific Air–Sea Interaction: Processes and Biases Relevant to ENSO and MJO (H.-H. Wei). *US CLIVAR Tropical Pacific Observing Needs Workshop*, Virtual, May 24–26, 2021.
- \*\* Equatorial Pacific sea surface temperature is one of the drivers of tropical Pacific double ITCZ bias in climate models (D. Samanta). *US CLIVAR Tropical Pacific Observing Needs Workshop*, Virtual, May 24–26, 2021.
- Diagnosing sources of tropical SST drift in S2S forecast models (C. DeMott). *US CLIVAR Tropical Pacific Observing Needs Workshop*, Virtual, May 24–26, 2021.
- An Innovative Collaboration Between Climate Scientists and Physicians in Medical School Education (H. Linstadt). *AMS Annual Meeting*, Virtual. Jan. 10–15, 2021.
- \*\* Tropical Pacific Air–Sea Interaction: Processes and Biases Relevant to ENSO and MJO (H.-H. Wei). *AGU Fall Meeting*, Virtual. Dec. 1–17, 2020.
- \* Toward Using Climate to Increase Lead–Time of a Malaria Early Warning System in Mozambique (R. Harp). *AGU Fall Meeting*, Virtual. Dec. 1–17, 2020.
- Impact of ocean observation systems on ocean analyses and subseasonal forecasts in the Indo–Pacific region (A. Subramanian). *AGU Fall Meeting*, Virtual. Dec. 1–17, 2020.
- \*\* Dynamic Sea–Level Simulation for Southeast Asia in the CMIP6 HighResMIP models: Mean biases and Changes by the end of the 21st Century (D. Samanta). *AGU Fall Meeting*, Virtual. Dec. 1–17, 2020.
- Long–Term Prediction of Malaria in Mozambique using InterAnnual Climate Variability (J. Colborn). *Annual Meeting of the American Society of Tropical Medicine & Hygiene*, Virtual. Nov. 15–19, 2020.
- The Pacific Equatorial Undercurrent in Three Generations of Global Climate Models and Glider Observations. *CIRES Rendezvous 2020*, Boulder, CO. Aug. 14, 2020.
- \*\* Are long–term changes in mixed layer depth influencing North Pacific marine heatwaves? (D. Amaya). *CIRES Rendezvous 2020*, Boulder, CO. Aug. 14, 2020.
- Water Exchange between the Western Equatorial Pacific Ocean and the South China Sea using coral geochemistry and ROMS (N. Goodkin). *AGU Ocean Sciences Meeting*, San Diego, CA. Feb. 16–21, 2020.
- \*\* Indian Ocean Warming Trend Reduces Pacific Warming Response to Anthropogenic Greenhouse Gases: An Interbasin Thermostat Mechanism (L. Zhang). *AGU Ocean Sciences Meeting*, San Diego, CA. Feb. 16–21, 2020.
- \* Upwelling, Instability, and Mixing West of the Galápagos Archipelago from Glider Observations (J. Jakoboski). *AGU Ocean Sciences Meeting*, San Diego, CA. Feb. 16–21, 2020.
- Regional Attribution of Tropical Expansion (P. Staten). *AMS Annual Meeting*, Boston, MA. Jan. 13–17, 2020.

- \* The Correlation between Sea Surface Temperature and the Structure of North Pacific Subtropical Anticyclones (A. Walker). *AMS Annual Meeting*, Boston, MA. Jan. 13–17, 2020.
- \* Relating Zonal Variability in Sea Surface Temperature to the Structure of North Pacific Anticyclones (J. Rader). *AMS Annual Meeting*, Boston, MA. Jan. 13–17, 2020.
- Fossil fuel combustion is driving indoor CO<sub>2</sub> toward levels harmful to human cognition. *AGU Fall Meeting*, San Francisco, CA. Dec. 9–13, 2019.
- \*\* Air–sea Interaction Processes and Biases in the Tropical Pacific in relation to El Niño generation in CESM2 (H.–H. Wei). *AGU Fall Meeting*, San Francisco, CA. Dec. 9–13, 2019.
- \*\* Indian Ocean Warming Trend Reduces Pacific Warming Response to Anthropogenic Greenhouse Gases: An Interbasin Thermostat Mechanism (L. Zhang). *AGU Fall Meeting*, San Francisco, CA. Dec. 9–13, 2019.
- \* El Niño pattern diversity and interactions with mean state trends (D. Lemmon). *AGU Fall Meeting*, San Francisco, CA. Dec. 9–13, 2019.
- \*\* Understanding air–sea interaction processes and biases in the Tropical Pacific in CESM2 (H.–H. Wei). *2019 CESM Workshop*, Boulder, CO. Jun. 17–19, 2019.
- \* Machine learning and underwater biomass characterization (K. Gadeken). *CIRES Rendezvous 2019*, Boulder, CO. May 17, 2019.
- \* Projecting Future Temperature–Driven Changes in Crime (R. Harp). *CIRES Rendezvous 2019*, Boulder, CO. May 17, 2019.
- \* Application of seasonal climate forecasts to predictions of regional crime anomalies in the United States (R. Harp). *AMS Annual Meeting*, Phoenix, AZ. Jan. 6–10, 2019.
- \* Diurnal Temperature Variability: an Observations–Climate Model Intercomparison (J. Rader). *AMS Annual Meeting*, Phoenix, AZ. Jan. 6–10, 2019.
- Regional tropical expansion—forced, unforced, and observed (P. Staten). *AGU Fall Meeting*, Washington, DC. Dec. 10–14, 2018.
- \* Diurnal Temperature Variability: an Observations–Climate Model Intercomparison (J. Rader). *AGU Fall Meeting*, Washington, DC. Dec. 10–14, 2018.
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- \* Application of satellite and acoustic remote sensing data to characterize the spatial distribution of marine life (K. Gadeken and M. MacLennan). *CIRES Rendezvous 2018*, Boulder, CO. May 18, 2018.
- \*\* Constraining atmospheric teleconnections of Pliocene El Niño in the Southeastern United States (J. Wycech). *CIRES Rendezvous 2018*, Boulder, CO. May 18, 2018.
- \*/\*\* Slowdown of the Atlantic Meridional Overturning Circulation: Anthropogenic or Natural Variability? (J. Pucciarelli and P. Sheevam). *CIRES Rendezvous 2018*, Boulder, CO. May 18, 2018.
- \*\* Variability in AMOC strength modifies the Northern Hemisphere surface temperature response in the CESM Large Ensemble (E. Maroon). *CIRES Rendezvous 2018*, Boulder, CO. May 18, 2018.
- \* Influence of Climate Variability on US Regional Assault Rates (R. Harp). *CIRES Rendezvous 2018*, Boulder, CO. May 18, 2018.
- \*\* A systematic bias in the relationship between equatorial zonal wind stress and equatorial undercurrent strength with implications for SST trends (S. Coats). *US CLIVAR Bridging Sustained Observations & Data Assimilation for TPOS 2020 Workshop*, Boulder, CO. May 1–3, 2018.

- \* A Metric for Quantifying ENSO Diversity with Implications for ENSO–Mean State Interaction (D. Lemmon). *US CLIVAR Bridging Sustained Observations & Data Assimilation for TPOS 2020 Workshop*, Boulder, CO. May 1–3, 2018.
- \*\* The relationship between GCM biases and internal low–frequency variability in the tropical Pacific (D. Samanta). *EGU General Assembly 2018*, Vienna, Austria. Apr. 8–13, 2018.
- Highlighting a Recent Special Collection on Ocean–Tropical Cyclone Interaction in *JGR–Oceans*. *AGU Ocean Sciences Meeting*, Portland, OR. Feb. 11–16, 2018.
- \* Seasonal Dynamics of Productivity in the Southern Red Sea using Satellite Measurements (J. Rader). *AGU Ocean Sciences Meeting*, Portland, OR. Feb. 11–16, 2018.
- \* Using Argo Data to Observe the Vertical Structure of Tropical Instability Waves in the Pacific Ocean (J. Jakoboski). *AGU Ocean Sciences Meeting*, Portland, OR. Feb. 11–16, 2018.
- Application of satellite and acoustic remote sensing data to characterize the spatial distribution of marine life (C. Wall). *AGU Ocean Sciences Meeting*, Portland, OR. Feb. 11–16, 2018.
- \*\* The influence of AMOC strength variability on surface temperatures (E. Maroon). *AGU Ocean Sciences Meeting*, Portland, OR. Feb. 11–16, 2018.
- \*\* Is the Pacific centennial scale oscillation in climate models due to mean state ENSO bias? (D. Samanta). Earth Obs. of Singapore, Nanyang Tech. University, Singapore. Jan. 8, 2018.
- Future Freshwater Stress on Small Islands: Population, Aridity and Global Warming Targets. *AGU Fall Meeting*, New Orleans, LA. Dec. 11–15, 2017.
- \* Influence of Climate Variability on US Regional Homicide Rates (R. Harp). *AGU Fall Meeting*, New Orleans, LA. Dec. 11–15, 2017.
- Separating Decadal Global Water Cycle Variability From Sea Level Rise (B. Hamlington). *International WCRP/IOC Conference on Regional Sea Level Changes and Coastal Impacts*, New York, NY. Jul. 10–14, 2017.
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- \*\* Response of the North Pacific Tropical Cyclone Climatology to Global Warming: Application of Dynamical Downscaling to CMIP5 Models. (L. Zhang). *Earth System and Space Science Poster Conf.*, Boulder, CO, Dec. 2, 2016.
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- \*\* North Atlantic Salinity as a Predictor of Extreme Precipitation Events in the US Midwest (L. Li). *International CLIVAR Open Science Conference*, Qingdao, China. Sep. 18–25, 2016.
- Future Freshwater Stress for Island Populations. *CIRES Rendezvous 2016*, Boulder, CO. May 13, 2016.
- \* The Impact of Land Cover Change in the Sahel on Atmospheric Circulation and Hydrology in Atmospheric Model Simulations (S. Redfern). *CIRES Rendezvous 2016*, Boulder, CO. May 13, 2016.



- \*\* Subseasonal Stratospheric Waves and their Impact on Tropical Rainfall (L. Zhang). *CIRES Rendezvous 2016*, Boulder, CO. May 13, 2016.
- \*\* An ocean dynamical thermostat—dominant in observations, absent in climate models (S. Coats). *CIRES Rendezvous 2016*, Boulder, CO. May 13, 2016.
- \*\* North Atlantic Sea Surface Salinity as a Predictor of Sahel Rainfall (L. Li). *AGU Ocean Sciences Meeting*, New Orleans, LA, Feb. 21–26, 2016.
- \* Influence of Tropical Instability Waves on the Pacific Equatorial Undercurrent and Topographic Upwelling West of the Galápagos Archipelago (J. Jakoboski). *AGU Ocean Sciences Meeting*, New Orleans, LA, Feb. 21–26, 2016.
- 250 years of SW Indian Monsoon Variability from Red Sea Corals (S. Bryan). *AGU Fall Meeting*, San Francisco, CA. Dec. 14–18, 2015.
- What role does the N. Atlantic subtropical cell play in warming the shallow underwater of the Caribbean Sea on decadal to centennial time scales? Constraints from radiocarbon records across the tropical Atlantic (A. Fernandez). *AGU Fall Meeting*, San Francisco, CA. Dec. 14–18, 2015.
- \* Suitability of estimating terrestrial potential evapotranspiration based on near–surface climate (H. Palmer). *Earth System and Space Science Poster Conf.*, Boulder, CO, Nov. 13, 2015.
- \* The Effect of Changes in the Hadley Circulation on Oceanic Oxygen Minimum Zones (G. de la Cruz Tello). *AMS Annual Meeting*, Phoenix, AZ. Jan. 4–8, 2015.
- \* The Effect of Changes in the Hadley Circulation on Oceanic Oxygen Minimum Zones (G. de la Cruz Tello). *AGU Fall Meeting*, San Francisco, CA. Dec. 15–19, 2014.
- \* Strengthening of the Equatorial Undercurrent from 1871 to present (E. J. Drenkard). *AGU Fall Meeting*, San Francisco, CA. Dec. 3–7, 2012.
- The Pliocene–Pleistocene Transition: An Alternative View on “Permanent El Niño” (E. Mittelstaedt). *AGU Fall Meeting*, San Francisco, CA. Dec. 3–7, 2012.
- \* Tropical Pacific influence on source and transport of marine aerosols to West Antarctica (A. Criscitiello). *International Partnerships in Ice Core Science (IPICS), First Open Science Conference*, Presqu’île de Giens, Côte d’Azur, France. Oct. 1–5, 2012.
- Equatorial refuge amidst tropical warming. *World Climate Research Programme (WCRP) Open Science Conference*, Denver, CO. Oct. 24–28, 2011.
- \* Sensitivity of ENSO to anthropogenic SST pattern formations (L. Stephenson–Haskins). *ASLO Aquatic Sciences Meeting*, San Juan, PR, Feb. 13–18, 2011.
- \*\* Coral growth declines as temperatures rise in the central Red Sea (N. E. Cantin). *AGU Ocean Sciences Meeting*, Portland, OR. Feb. 22–26, 2010.
- Low–frequency tropical Pacific forcing of multi–year North American drought in CMIP3 models. *NOAA Climate Diagnostics and Prediction Workshop/CLIVAR Drought Workshop*, Lincoln, NE. Oct. 20–24, 2008.
- Interannual variability of sea surface temperature in the east Pacific warm pool and Central American rainfall. *AGU Ocean Sciences Meeting*, Orlando, FL. Mar. 2–7, 2008.
- Incredible Shrinking Iguana: Gaia on Galápagos? (R. Murtugudde). *Ocean Carbon & Biogeochemistry Summer Workshop*, Woods Hole, MA. July 23–26, 2007.
- Mechanisms for interannual variability in the east Pacific warm pool. *AGU Fall Meeting*, San Francisco, CA. Dec. 22–15, 2006.
- Interannual variability of SST and Chlorophyll in the East Pacific Warm Pool: High–resolution satellite observations. *East Pacific Ocean Conference*, Mt. Hood, OR. Sep. 28–30, 2006.

A Palmer Drought Severity Index for the North American Regional Reanalysis and the ECMWF 40-year Reanalysis: Comparative analysis and linkages to interannual and decadal climate variability. *AGU Joint Assembly*, Baltimore, MD. May 23–26, 2006.

Interannual variability in the East Pacific Warm Pool: High-resolution satellite observations. *International Conference on Southern Hemisphere Meteorology and Oceanography*, Foz do Iguacu, Brazil. Apr. 24–28, 2006.

Seasonal and interannual variability of the East Pacific Warm Pool. *Eastern Pacific Investigation of Climate Processes (EPIC) Workshop*, Seattle, WA. May 11–13, 2005.

Introducing the Next Generation Geostationary Imager– GOES–R's Advanced Baseline Imager (T. J. Schmit). *AMS Annual Meeting*, San Diego, CA. Jan. 8–14, 2005.

Interannual variability of surface longwave radiation over the African continent as derived from AVHRR. *NOAA Climate Diagnostics and Prediction Workshop*, Madison, WI. Oct. 18–22, 2004.

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Using GOES–R to help monitor SO<sub>2</sub> (T. Schreiner). *3<sup>rd</sup> NOAA GOES–R Users Conference*, Boulder, CO. May 10–13, 2004.

Simulation of the spectral bands on the Advanced Baseline Imager (ABI) (M. Gunshor). *3<sup>rd</sup> NOAA GOES–R Users Conference*, Boulder, CO. May 10–13, 2004.

Wisconsin Weather Stories (A. Pryor). *AMS Annual Meeting*, Seattle, WA. Jan. 10–16, 2004.

#### *Abstracts submitted*

Ancient islands, ocean circulation history, and the emerging odyssey of the Galapagos iguana (M. Richards). *Island Systems Integration Consortium*, University of Oregon, Eugene, OR. Sep. 14–18, 2025. (Invited)

\* Winds Through Time: Interactive Data Visualization and Physicalization for Paleoclimate Communication (D. Hunter). *IEEE VIS 2025*, Vienna, Austria. Nov. 2–7, 2025.

ColdBlobMIP: A Multi-Model Assessment of the Atmospheric Response to the North Atlantic Warming Hole. *AGU Fall Meeting 2025*, New Orleans, LA. Dec. 15–19, 2025.

\*\* Stationarity of Indo-Pacific basin interactions across past and future climates (S. Wang). *AGU Fall Meeting 2025*, New Orleans, LA. Dec. 15–19, 2025.

\* Tropical Atlantic and Indian Ocean Temperatures Shape Malaria Risk in Malawi Through Impacts on Soil Moisture (M. Elling). *AGU Fall Meeting 2025*, New Orleans, LA. Dec. 15–19, 2025.

\*\* Salinity-Driven Barrier Layer Dynamics in the Equatorial Pacific (Y.-J. Lin). *AGU Fall Meeting 2025*, New Orleans, LA. Dec. 15–19, 2025.

Deglacial Changes in the Northern Hemisphere Atmospheric Circulation Recorded by Tehuantepec Gap Wind Upwelling (J. Baldwin). *AGU Fall Meeting 2025*, New Orleans, LA. Dec. 15–19, 2025. (Invited)

\*\* A Multi Country Analysis of Resiliency to Climate Driven Malaria Risk (M. Kowalczyk). *AGU Fall Meeting 2025*, New Orleans, LA. Dec. 15–19, 2025.

High-Resolution Modeling Confirms a La Niña-like Forced Sea Level Response in CESM (J. Fasullo). *AGU Fall Meeting 2025*, New Orleans, LA. Dec. 15–19, 2025.

\* Changing Modulation of Easterly Waves by the Madden-Julian Oscillation in a Warming Climate (A. Bowden). *AMS Annual Meeting*, Houston, TX. Jan. 25–29, 2026.

Mentorship: A Reciprocal Relationship for Career Resiliency (S. Clem). *AGU Ocean Sciences Meeting*, Glasgow, Scotland. Feb. 22–27, 2026.

Does Improved Equatorial Ocean Circulation Reduce the Pacific Double ITCZ Bias in Climate Models? (D. Samanta). *CMIP 2026 Community Workshop*, Kyoto, Japan. Mar. 9–13, 2026.