



Curriculum Vitae

Kristopher B. Karnauskas, Ph.D.
kristopher.karnauskas@colorado.edu
<http://www.colorado.edu/oclab>
Twitter: @OceansClimateCU

University of Colorado Boulder
311 UCB | SEEC N228A
4001 Discovery Drive
Boulder, CO 80309-0311
303-735-4395

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: Richard Seager and Alexey Kaplan (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–[†]
Fellow, Coop. Inst. for Res. in Env. Sciences (CIRES), University of Colorado Boulder, 2015–

Current secondary, visiting, affiliate and adjunct

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–
Visiting Scientist, Earth Observatory of Singapore, Nanyang Technological Univ., 2017–2020
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–

[†] Tenure approved 6/22/18, effective 8/20/2018.

Previous

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

Chancellor’s Research Innovation Award, 2020
AGU Ocean Sciences Early Career Award, 2017
Faculty Fellowship, CU ASSETT, 2017–2018
Outstanding Service Award, CU ATOC, 2015
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—Campus

Member, Executive Committee, Boulder Faculty Assembly, 2020–
Chair, Faculty Climate Science & Education Committee, Boulder Faculty Assembly, 2020–
Member, Faculty Climate Science & Education Committee, Boulder Faculty Assembly, 2018–2020
Member, Student Affairs Committee, Boulder Faculty Assembly, 2018–
Representative, Boulder Faculty Assembly, 2017–
Member, University of Colorado Consortium on Climate Change and Health, 2016–

Internal service—Institute

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

Member, CIRES Graduate Fellowship Committee, 2016–2017

Internal service—Department

Chair, ATOC Diversity/Inclusive Excellence Committee, 2016–2020

Chair, ATOC Technology Committee, 2015–

Member, ATOC Colloquium Committee, 2018/19

Member, ATOC Graduate Admissions Committee, 2016

Member, ATOC *ad hoc* Chair Nominating Committee, 2015

Editing & reviewing

Editor, *Journal of Geophysical Research—Oceans*, 2015–2022

Associate Editor, *Journal of Geophysical Research—Oceans*, 2007–2014

Manuscript reviewer, *PNAS*, *Nature*, *Nature Geoscience*, *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.*, *Ocean. Model.*, *Appl Geochem.*, *Int. J. Rem. Sens.*, *JAMES*, *Clim. Change*, *Hydrolog. Processes*, *Nat. Sci. Rev. (Chinese Acad. Sci.)*, *BAMS*, *Coral Reefs*, *Dyn. Atm. Oceans*, *Marine Policy*, *Environ. Res. Lett.*

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

Panel reviewer, NASA Physical Oceanography, DOE Regional & Global Climate Modeling

Book reviewer, Columbia University Press

Professional committees, panels & working groups

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

Member, UCAR SOARS Director Search Committee, 2018

Member, UCAR Membership Committee, 2017–2020

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–

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, 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

Member, Planning Committee, Climate Change and Health Symposium, CO School of Public Health, 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

Senior Mentor, Mentoring Physical Oceanography Women to Increase Retention (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[†]
 Co–Director, *Wilderness & Climate Medicine* (CU School of Medicine/ATOC 4500), 2017–
 Developed/taught *Physical Oceanography & Climate* (CU ATOC 4730/5730; F15, S17, F17, F18, F19)
 Taught *Seminar in Climate Dynamics* (CU ATOC 6020; F15, S16, S17, F17, S18, F18, F19)
 Developed/taught *Seminar in Climate Change & Human Health* (CU ATOC 6020; F16)
 Taught *Introduction to Oceanography* (CU ATOC/GEOL 3070; F16, Sm18, F18, Sm19)
 Taught (including redesign) *Our Changing Environment* (CU ATOC 1060; S16, S18, S19)
 Developed/taught *Climate Variability & Diagnostics* (MIT 12.860; S12, S14)
 Developed/taught *Climate Change & Society* (Boston College GE174; F10, F11)

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

Invited teaching engagements & guest lectures

Guest lecture, Climate & Health Cohort (CU School of Medicine), Oct. 17, 2019
Instructor, SOED Ocean–Star Short Course on ENSO, Hangzhou, China (Jun. 24–28, 2019)
Guest lecture, Climate Medicine (CU School of Medicine 8010), March 18, 2019
Guest lecture, Introduction to Environmental Studies (CU ENVS 1000), Sep. 27, 2018
Guest lecture, Climate Change and Health (CO School of Public Health EHOH 6635), Sep. 4, 2018
Guest lecture, Special Topics: Climate Change and Health (CU GEOG 4120), Sep. 5, 2017
Guest lecture, Wind Energy Meteorology (CU ATOC 4770), Apr. 24, 2017
Guest lectures (periodic), Sea Education Association (SEA), Woods Hole, MA, 2014–15

Postdoctoral mentoring

Mentor, CU Chancellor’s Postdoctoral Fellow for Diversity Sara Sanchez, 2020–
Mentor, CU CIRES Postdoctoral Visiting Fellow Dillon Amaya, 2020–
Mentor, CU CIRES Postdoctoral Visiting Fellow Ho–Hsuan Wei, Fall 2018–
Co–mentor, CU CIRES Postdoctoral Visiting Fellow Jody Wycech, Fall 2017–2019
Co–mentor, EOS/NTU Postdoctoral Research Fellow Dhrubajyoti Samanta, 2017–
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

Co–advisor, CU Mechanical Engineering master’s student Gabriella Pagliuca, 2019–
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 (Ph.D. ‘14)

Undergraduate and other advising

Supervisor to 12 undergraduates for independent study credits (CU ATOC 4900) since 2016
Mentor, CU ENVS Senior Honors Thesis student Alyssa Walker, 2019/20
Mentor, CU SMART Intern Zaibeth Carlo Frontera (from UPR–Mayagüez), Summer 2019
Mentor CU UROP Grantee Alyssa Walker, Summer 2019

Mentor, McNair Scholar Kellie Gadeken, 2018
Mentor, CU UROP Grantee Abigayle Clabaugh, 2017–2018
Mentor, NCAR/SOARS Protégé Jamin Rader, 2017, 2018, 2019
Mentor, BVSD Science Research Seminar (2 H.S. students), 2016–2017
Mentor, CU SMART Intern Thomas Rechtman (from UCF), Summer 2016
Mentor, CU Visiting Research Assistant Hannah Palmer (from UCLA), 2015–2016
Mentor, CU Undergraduate Research Assistant Ashley Warner, Fall 2015
Co-mentor, NCAR/SOARS Protégé, 2015
Co-mentor, WHOI-NCAR/SOARS Student, 2014
Mentor, WHOI Summer Guest Student, 2013
Mentor, WHOI Winter Term Intern, 2012
Mentor, WHOI Summer Student Fellow, 2010
Mentor, Falmouth Public Schools Science & Engineering Fair (3 H.S. students), 2009–2010

Membership on academic committees

Thesis committee member, CU doctoral student Eduard Heijkoop, 2020–
Thesis committee member, CU doctoral student Geneviève Elsworth, 2019–
Chair of comprehensive exam committee, CU doctoral student Tessa Gorte, 2019
External thesis examiner, KAUST (Saudi Arabia) doctoral student Andrew Yip, 2018
Thesis committee member, CU doctoral student Tessa Gorte, 2018–
Senior honors thesis committee member, CU Geography major Phillip Kamps, 2018–2019
Senior honors thesis committee member, CU Geography major Luke Tetreau, 2018
Comprehensive exam committee member, CU doctoral student Riley Brady, 2018
Thesis committee member, CU doctoral student Cheng Lu, 2017–
Chair of comprehensive exam committee, CU doctoral student Stephanie Redfern, 2018
Thesis committee member, CU doctoral student Stephanie Redfern, 2017–2018
Chair of comprehensive exam & thesis committee, CU doctoral student Rory Laiho, 2016–
Thesis committee member, CU doctoral student Bill Frey, 2016–
Chair of comprehensive exam committee, CU doctoral student Bill Frey, 2016
Thesis committee member, CU doctoral student Jason West, 2016–2019
Chair of comprehensive exam committee, CU doctoral student Jason West, 2016
Thesis committee member, CU doctoral student Brigitta Rongstad, 2015–2020
Thesis committee member, CU doctoral student Arin Nelson, 2014–2017
Chair of thesis proposal presentation, MIT-WHOI doctoral student Hannah Barkley, 2014
Thesis committee member, CU doctoral student Sean Haney, 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

Participation in teaching workshops and activities

ASSETT Faculty Fellow Program (Spring 2017 through Spring 2018)
FTEP Workshop, Teaching Large Classes (Sep. 28, 2016)
FTEP Workshop, Getting Around Student Pushback (Sep. 13, 2016)
Individual consultation, Center for STEM Learning (Aug. 19, 2015)
FTEP Workshop, Learning Goals and Course Design (Aug. 10, 2015)

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

- 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, \$1.3 million, 2020–2024, Co–I.
- Predicting Hurricane Risk along the United States East Coast in a Changing Climate. NSF Prediction of and Resilience against Extreme Events (PREEVENTS), \$2.1 million, 2019–2023, Co–PI & Institutional PI.
- Climate and Infant Mortality Rates on Tropical Islands. CIRES Innovative Research Program, \$25K, 2019–2020, Lead 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 & Institutional 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, Lead 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, Lead PI.
- Investigating feedbacks between climate and air travel at a global scale. Microsoft Research / White House Climate Data Initiative, \$40K, 2014–2015, Lead 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 million, 2013–2018, Co–PI & Institutional PI.
- Repeat observations by gliders in the equatorial region (ROGER). NSF Physical Oceanography, \$1.7 million, 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, Lead PI.
- The American midsummer drought: Causal mechanisms and seasonal–to–interannual predictability. NOAA Modeling, Analysis, Predictions and Projections, \$445K, 2010–2013, Lead 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, Lead 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, Lead PI.

Consulting and Contracting

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

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

Outreach and Media Engagement

Expert quotes: Reuters/New York Times (Apr. 3, 2020), BBC News (Feb. 10, 2016), Washington Post (Apr. 6, 2017), Popular Science (Apr. 6, 2017), Wall Street Journal (Sep. 12, 2017), UK Carbon Brief (Apr. 25, 2018), Nature (Aug. 15, 2018), Forbes (Aug. 25, 2018), New Scientist (Nov. 18, 2019), Mashable (Aug. 27, 2018, Oct. 15, 2018, Apr. 22, 2019, Jun. 4, 2019, Dec. 3, 2019 & Jul. 1, 2020), Daily Camera (Apr. 19, 2020).

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), Wired, Popular Science, Daily Camera, Boulder Weekly, highlights in *Nature*, *Science*, and *Eos*.

Television interviews: NBC Nightly News, The Today Show, MSNBC, NBC News Now, Univision, CBC (Canada), ABC/Denver7.

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).

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).

Books

- Physical Oceanography and Climate, First Edition, Cambridge University Press, ISBN 978–1–108–42386–1 (Hardback), ISBN 978–1–108–52959–4 (eBook).
- Climate Modeling for Health Impacts (Chapter 13), in *Global Climate Change and Human Health: From Science to Practice*, Second Edition (Luber *et al.*, eds), Wiley, in press.

Scientific Publications (* student–led; ** postdoc–led; § cited by IPCC AR or SR)

Published, peer–reviewed articles (n = 69, h–index = 20 [WoS], 20 [Scopus], 23 [Google Scholar])

- Karnauskas, K. B., 2020: Physical Diagnosis of the 2016 Great Barrier Reef Bleaching Event. *Geophys. Res. Lett.*, **47**(11), e2019GL086177 doi: 10.1029/2019GL086177.
- Gao, C., R.–H. Zhang, K. B. Karnauskas, L. Zhang, and F. Tian, 2020: Separating freshwater flux effects on ENSO in a hybrid coupled model of the tropical Pacific. *Clim. Dyn.*, **54**, 4605–4626, doi: 10.1007/s00382-020-05245-y.
- Karnauskas, K. B., S. L. Miller, and A. C. Schapiro, 2020: Fossil fuel combustion is driving indoor CO₂ toward levels harmful to human cognition. *GeoHealth*, **4**(5), e2019GH000237, doi: 10.1029/2019GH000237.
- Staten, P. W., K. M. Grise, S. M. Davis, K. B. Karnauskas, D. W. Waugh, A. Maycock, Q. Fu, K. Cook, O. Adam, I. R. Simpson, R. J. Allen, K. Rosenlof, G. Chen, C. C. Ummenhofer, X.–W. Quan, J. P. Kossin, N. A. Davis, and S.–W. Soon, 2020: Tropical widening: From global variations to regional impacts. *Bull. Amer. Meteor. Soc.*, **101**, E897–E904, doi: 10.1175/BAMS-D-19-0047.1.
- * Jakoboski, J. K., R. E. Todd, W. B. Owens, K. B. Karnauskas, and D. L. Rudnick, 2020: Bifurcation and Upwelling of the Equatorial Undercurrent West of the Galápagos Archipelago. *J. Phys. Oceanogr.*, **50**, 887–905, doi: 10.1175/JPO-D-19-0110.1.
- ** Samanta, D., B. Rajagopalan, K. B. Karnauskas, L. Zhang, and N. F. Goodkin, 2020: La Niña's Diminishing Fingerprint on the Central Indian Summer Monsoon. *Geophys. Res. Lett.*, **47**(2), e2019GL086237, doi: 10.1029/2019GL086237.
- * Harp, R. D., and K. B. Karnauskas, 2020: Global Warming to Increase Violent Crime in the United States. *Environ. Res. Lett.*, **15**(3), 034039, doi: 10.1088/1748-9326/ab6b37.
- ** Zhang, L., W. Han, K. B. Karnauskas, G. A. Meehl, A. Hu, N. Rosenbloom, and T. Shinoda, 2019: Indian Ocean Warming Trend Reduces Pacific Warming Response to Anthropogenic Greenhouse Gases: An Interbasin Thermostat Mechanism. *Geophys. Res. Lett.*, **46**, 10882–10890, doi: 10.1029/2019GL084088.
- Staten, P. W., K. M. Grise, S. M. Davis, N. A. Davis, and K. B. Karnauskas, 2019: Regional widening of tropical overturning–forced change, natural variability, and recent trends. *J. Geophys. Res.–Atmospheres*, **124**, 6104–6119, doi: 10.1029/2018JD030100.
- * Lemmon, D. E., and K. B. Karnauskas, 2019: A metric for quantifying El Niño pattern diversity with implications for ENSO–mean state interaction. *Clim. Dyn.*, **52**, 7511–7523, doi: 10.1007/s00382-018-4194-3.
- Goodkin, N. F., A. Bolton, K. A. Hughen, K. B. Karnauskas, S. Griffin, K. H. Phan, S. T. Vo, M. R. Ong, and E. R. M. Druffel, 2019: East Asian Monsoon Variability since the 16th Century. *Geophys. Res. Lett.*, **46**, 4790–4798, doi: 10.1029/2019GL081939.
- Bryan, S. P., K. A. Hughen, K. B. Karnauskas, and J. T. Farrar, 2019: Two Hundred Fifty Years of Reconstructed South Asian Summer Monsoon Intensity and Decadal–Scale Variability. *Geophys. Res. Lett.*, **46**, 3927–3935, doi: 10.1029/2018GL081593.

- Hamlington, B. D., S. H. Cheon, C. G. Piecuch, K. B. Karnauskas, P. R. Thompson, K.-Y. Kim, J. T. Reager, F. W. Landerer, and T. Frederiske, 2019: The dominant global modes of recent internal sea level variability. *J. Geophys. Res.–Oceans*, **124**, 2750–2768, doi: 10.1029/2018JC014635.
- ** Zhang, L., D.-Z. Sun and K. B. Karnauskas, 2019: The Role of the Indian Ocean in Determining the Tropical Pacific SST Response to Radiative Forcing in an Idealized Model. *Dynamics of Atmospheres and Oceans*, **86**, 1–9, doi: 10.1016/j.dynatmoce.2019.02.003.
- ** Samanta, D., K. B. Karnauskas, and N. F. Goodkin, 2019: Tropical Pacific SST and ITCZ Biases in Climate Models: Double Trouble for Future Rainfall Projections? *Geophys. Res. Lett.*, **46**, 2242–2252, doi: 10.1029/2018GL081363.
- Grise, K. M., S. M. Davis, I. R. Simpson, D. W. Waugh, Q. Fu, R. J. Allen, K. H. Rosenlof, C. C. Ummenhofer, K. B. Karnauskas, A. C. Maycock, X. Quan, T. Birner, and P. W. Staten, 2019: Recent Tropical Expansion: Natural Variability or Forced Response? *J. Climate*, **32**, 1551–1571, doi: 10.1175/JCLI-D-18-0444.1.
- * Harp, R. D., and K. B. Karnauskas, 2018: The Influence of Interannual Climate Variability on Regional Violent Crime Rates in the United States. *GeoHealth*, **2**, 356–369, doi: 10.1029/2018GH000152.
- ** Samanta, D., K. B. Karnauskas, N. F. Goodkin, S. Coats, J. E. Smerdon, and L. Zhang, 2018: Coupled model biases breed spurious low-frequency variability in the tropical Pacific Ocean. *Geophys. Res. Lett.*, **45**, 10609–10618, doi: 10.1029/2018GL079455.
- ** Maroon, E. A., J. E. Kay, and K. B. Karnauskas, 2018: Influence of the Atlantic meridional overturning circulation on the Northern Hemisphere surface temperature response to radiative forcing. *J. Climate*, **31**, 9207–9224, doi: 10.1175/JCLI-D-17-0900.1.
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- § Karnauskas, K. B., C.-F. Schleussner, J. P. Donnelly, and K. J. Anchukaitis, 2018: Freshwater Stress on Small Island Developing States: Population Projections and Aridity Changes at 1.5°C and 2°C. *Reg. Environ. Change*, **18**, 2273–2282, doi: 10.1007/s10113-018-1331-9.
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* Gadeken, K. R., M. B. Joseph, J. McGlinchy, K. B. Karnauskas, and C. C. Wall (2020) Can satellite-derived ocean surface data predict subsurface sonar observations?

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* Palmer, H. M., K. B. Karnauskas, and M. S. Kendall (2020) The role of vertical structure in larval transport and population connectivity outcomes: A global, steady-state perspective.

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Invited articles (soft-reviewed or not peer reviewed)

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Seminars & Conference Proceedings (* student–led; ** postdoc–led; presenter, if not me)

Invited talks

- Climate Change and Medicine. *46th 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 21st 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

- ** 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 (WGFAST)*, 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. *Climate Change and Health Symposium, 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 19th 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). *8th Conference on Weather, Climate, Water, and the New Energy Economy, 97th 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 40th 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 20th 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). *11th 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

- 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 CO₂ 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.
 - ** The double ITCZ bias in GCMs: Causes and implications for future rainfall projections (D. Samanta). *SPARC General Assembly 2018*, Kyoto, Japan. Oct. 1–5, 2018.
 - * 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*, 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.
- ** Variability in AMOC strength modifies the Northern Hemisphere surface temperature response in the CESM Large Ensemble (E. Maroon). *CIRES Rendezvous 2017*, Boulder, CO. May 18, 2017.
 - * Implications of Changing Temperatures on US Crime Rates (R. Harp). *CIRES Rendezvous 2017*, Boulder, CO. May 18, 2017.
 - ** Response of the North Pacific Tropical Cyclone Climatology to Global Warming: Application of Dynamical Downscaling to CMIP5 Models. (L. Zhang). *AGU Fall Meeting*, San Francisco, CA. Dec. 12–16, 2016.
 - ** 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.
 - * Implications of changing temperatures on US crime rates (R. Harp). *Earth System and Space Science Poster Conf.*, Boulder, CO, Dec. 2, 2016.
- Future Freshwater Stress for Island Populations. *International CLIVAR Open Science Conference*, Qingdao, China. Sep. 18–25, 2016.
- A Robust Metric for ENSO Pattern Diversity Applied to Historical Observations and Coupled Models. *International CLIVAR Open Science Conference*, Qingdao, China. Sep. 18–25, 2016.
- ** 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.

Interannual variability of surface longwave radiation over the African continent as derived from AVHRR. *National Weather Association Ann. Meeting*, Portland, OR. Oct. 16–21, 2004.

Using GOES–R to help monitor SO₂ (T. Schreiner). *3rd NOAA GOES–R Users Conference*, Boulder, CO. May 10–13, 2004.

Simulation of the spectral bands on the Advanced Baseline Imager (ABI) (M. Gunshor). *3rd 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.

Conference abstracts submitted

Vietnam climate experienced multi-decadal variability over the past 400 years, and decoupling of seasonal SST with anthropogenic warming (N. Goodkin). *14th International Coral Reef Symposium (ICRS)*, Bremen, Germany. Jul. 5–10, 2020.

Interannual Climate Variability and Malaria in Mozambique (J. Colborn). *Annual Meeting of the American Society of Tropical Medicine & Hygiene*, Toronto, Canada. Nov. 15–19, 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*, Toronto, Canada. Nov. 15–19, 2020.