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| CONTACT INFORMATION | Department of Meteorology, University of Hawaii 2525 Correa Road, HIG 350, Honolulu, HI 96822, USA | Tel: (+1) 808 956 7110 E-mail: ckaramp@hawaii.edu ck2424@columbia.edu | | | | | | | | | | | | | | | | | | | | |
| RESEARCH INTERESTS & SKILLS | ENSO predictability, Response of mid-latitude atmospheric circulation to climate change and variability, ENSO in past climates, Dynamical Systems Theory, HydroInformatics, Groundwater resources management. <i>Skills:</i> Climate model simulations, Advanced statistical analysis, Model optimization, Groundwater modeling | | | | | | | | | | | | | | | | | | | | | |
| EDUCATIONAL BACKGROUND | <table border="0"> <tr> <td>PhD</td> <td>Columbia University</td> <td>Earth & Environmental Engineering</td> <td>2012</td> </tr> <tr> <td>MPhil</td> <td>Columbia University</td> <td>Earth & Environmental Engineering</td> <td>2011</td> </tr> <tr> <td>MSc</td> <td>A.U.Th.</td> <td>Environmental Protection & Sustainable Development</td> <td>2007</td> </tr> <tr> <td>MSc</td> <td>A.U.Th.</td> <td>Hydraulics & Environmental Engineering</td> <td>2006</td> </tr> <tr> <td>Diploma</td> <td>Aristotle University of Thessaloniki (A.U.Th.)</td> <td>Civil Engineering</td> <td>2006</td> </tr> </table> | PhD | Columbia University | Earth & Environmental Engineering | 2012 | MPhil | Columbia University | Earth & Environmental Engineering | 2011 | MSc | A.U.Th. | Environmental Protection & Sustainable Development | 2007 | MSc | A.U.Th. | Hydraulics & Environmental Engineering | 2006 | Diploma | Aristotle University of Thessaloniki (A.U.Th.) | Civil Engineering | 2006 | |
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| HONORS & AWARDS | <table border="0"> <tr> <td>PhD title awarded with Distinction, Columbia University</td> <td>2012</td> </tr> <tr> <td>NASA Earth and Space Science Fellow (NESSF)</td> <td>2009-2012</td> </tr> <tr> <td>Outstanding Student Paper Award, Atmospheric Sciences Section, AGU Fall Meeting</td> <td>2010</td> </tr> <tr> <td>Fellow, Alexander S. Onassis Public Benefit Foundation</td> <td>2009-2012</td> </tr> </table> | | PhD title awarded with Distinction, Columbia University | 2012 | NASA Earth and Space Science Fellow (NESSF) | 2009-2012 | Outstanding Student Paper Award, Atmospheric Sciences Section, AGU Fall Meeting | 2010 | Fellow, Alexander S. Onassis Public Benefit Foundation | 2009-2012 | | | | | | | | | | | | |
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| Fellow, Alexander S. Onassis Public Benefit Foundation | 2009-2012 | | | | | | | | | | | | | | | | | | | | | |
| APPOINTMENTS | <table border="0"> <tr> <td>Assistant Researcher, Department of Meteorology, U. of Hawaii</td> <td>09/2012-date</td> </tr> <tr> <td>Adjunct Associate Research Scientist, Columbia University</td> <td>09/2012-date</td> </tr> <tr> <td>Research & Teaching Assistant, Columbia University</td> <td>2008-2012</td> </tr> <tr> <td>Research Assistant, Aristotle University of Thessaloniki, Greece</td> <td>2005-2007</td> </tr> </table> | | Assistant Researcher, Department of Meteorology, U. of Hawaii | 09/2012-date | Adjunct Associate Research Scientist, Columbia University | 09/2012-date | Research & Teaching Assistant, Columbia University | 2008-2012 | Research Assistant, Aristotle University of Thessaloniki, Greece | 2005-2007 | | | | | | | | | | | | |
| Assistant Researcher, Department of Meteorology, U. of Hawaii | 09/2012-date | | | | | | | | | | | | | | | | | | | | | |
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| Research Assistant, Aristotle University of Thessaloniki, Greece | 2005-2007 | | | | | | | | | | | | | | | | | | | | | |
| FUNDED PROJECTS | <ul style="list-style-type: none"> • <i>"Understanding changing ENSO flavors in the mid-Holocene laboratory"</i>, National Science Foundation (PI), \$439,605 • <i>"Studies on Dynamics of ENSO (El Niño-Southern Oscillation) Complexity"</i>, National Science Foundation (personnel), \$599,777 • <i>"How can the contribution of climate variability, water release patterns, and hydrologic performance indices towards ecological restoration measures at the Everglades National Park be best quantified and predicted?"</i>, National Park Service, (co-PI and Graduate Research Assistant), \$151,721 • <i>"Dynamics of the Hydrological Cycle in a Changing Climate: Interactions of Low Frequency Climate Mechanisms and Hydrologic Extremes"</i>, NASA (Earth & Space Science Fellow), \$90,000 • <i>"Chrystechsalin (saltwater intrusion in coastal aquifers)"</i>, European Union (Undergraduate Research Assistant) | | | | | | | | | | | | | | | | | | | | | |
| PUBLICATIONS | <p>C. Karamperidou and P.N. Di Nezio, "Altered ENSO flavors during the mid-Holocene revealed by model-proxy synthesis", in preparation</p> <p>C. Karamperidou, P.N. Di Nezio, F.-F. Jin, A. Timmermann, K. Cobb "The response of ENSO flavors to mid-Holocene climate: Implications for proxy interpretation", <i>Paleoceanography</i> 30(5), 527-547</p> <p>K. Schollaen, C. Karamperidou, G. Helle, "ENSO flavors in a tree-ring $\delta^{18}O$ record of <i>Tectona grandis</i> from Indonesia", <i>Climates of the Past</i>. 10, 3965-3987</p> <p>C. Karamperidou, M.A. Cane, U. Lall, A.T. Wittenberg, "Intrinsic modulation of ENSO predictability viewed through a local Lyapunov lens.", <i>Climate Dynamics</i>, doi: 10.1007/s00382-</p> | | | | | | | | | | | | | | | | | | | | | |

013-1759-z.

C.Karamperidou, V. Engel, E. Stabenau, U. Lall and T. Smith III. *"Implications of multi-scale sea level and climate variability for coastal resources: a case study for south Florida and Everglades National Park, USA."*, *Regional Environmental Change*, doi: 10.1007/s10113-013-0408-8.

C.Karamperidou, F. Cioffi, and U. Lall. *"Surface Temperature Gradients as Diagnostic Indicators of Midlatitude Circulation Dynamics"*, *J. Climate*, 25, 4154-4171.

D. Chavas, E. Yonekura, **C. Karamperidou**, N. Cavanaugh, K. Sherafin, *"US Hurricanes and economic damage: an extreme value perspective."*, *Nat. Haz. Rev.*, doi: 10.1061/(ASCE)NH.1527-6996.0000102

C.Karamperidou, M.Vafeiadis, and K.L. Katsifarakis. *"Groundwater Resources Management Optimization by means of Artificial Neural Networks."*, *Tech. Chron. Sci. J., Technical Chamber of Greece Editions, No 2, pp. 25-32, 2010.*

S.Arvanitidou, **C.Karamperidou**, and K.L. Katsifarakis. *"Optimal Hydrodynamic Control of a Contaminant Plume."* *Proceedings of the Joint Conference of the Hellenic Hydraulic Union, and the Greek Committee for Water Resources Management*, Volos, Greece, 27-30/05/2009

C.Karamperidou, E.Karamperidou, and K.L. Katsifarakis. *"Seawater intrusion into the aquifer of Eleftherae-N. Peramos, Kavala, Greece."* *WIT Transactions on Ecology and the Environment* 104, pp. 3-10, 2007.

RECENT TALKS

C. Karamperidou and Jessica Conroy, *"The Mean State of the tropical Pacific on multidecadal to centennial timescales: Strength of the Bjerknes Feedback and ENSO Influences."*, XIX INQUA Congress: Quaternary Perspectives on Climate Change, Natural Hazards and Civilization. Nagoya, Japan, July 27-Aug 3, 2015.

C. Karamperidou and Pedro Di Nezio, *"The role of nonlinearities and seasonality in the response of ENSO to climate changes."*, 4th CLIVAR Workshop on the Evaluation of ENSO Processes in Climate Models: ENSO in a changing climate. Paris, France, July 8-10, 2015.

C. Karamperidou, *"ENSO-annual cycle interactions: Insights from models and paleoclimate proxies."*, UCSB Interdepartmental Graduate Program in Marine Science (IGPMS) Seminar Series, Santa Barbara, May, 2015.

C. Karamperidou, *"Altered ENSO flavors during the mid-Holocene revealed by model-proxy synthesis"*, AGU Fall Meeting, San Francisco, Dec 2014

C. Karamperidou, *"Does El Niño variability affect warming trends in the tropical Pacific?"*, The Tropics Rule: a symposium honoring Mark Cane's contribution to climate science, Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY USA, October 20-21, 2014.

C. Karamperidou, *"ENSO Diversity in the mid-Holocene"*, Second Palaeoclimate Modelling Intercomparison Project (PMIP3) general meeting. Namur, Belgium, May 2014.

C. Karamperidou, *"ENSO diversity and orbital forcing"*, Department of Meteorology Seminar, U. of Hawaii, Honolulu, HI, April 16th, 2014.

C. Karamperidou, *"The response of ENSO flavors to orbital forcing: Implications for interpreting proxies"*, U.S. CLIVAR ENSO Diversity Workshop, Boulder, CO February 6-8, 2013.

C. Karamperidou, *"The interacting dynamics of tropical and extratropical climate: A "reduced-space" perspective."*, U. Of Hawaii, International Pacific Research Center Seminar, April 30, 2012.

C. Karamperidou, *"Bias or Uncertainty: Following the bias cascade in precipitation projections."*, Workshop "Climate Change and Water Cycle, and Communicating Uncertainty, Princeton University, 30-31 March 2012.

C. Karamperidou, *"Assessing Uncertainties in ENSO Predictability due to Internal Variability."*, Geology, Earth & Oceanography Series (GEOS), City University of New York (CUNY), February 16th, 2012.

C. Karamperidou, M.A. Cane, A.T. Wittenberg, U. Lall, P.N. DiNezio, "*Irregularity in ENSO Predictability Through the Prism of Local Lyapunov Exponents.*", 24th Conference on Climate Variability and Change, 92nd American Meteorological Society Annual Meeting, N. Orleans, LA, January 22-26, 2012.

C. Karamperidou, M.A. Cane, A.T. Wittenberg, U. Lall, P.N. DiNezio, "*Decadal ENSO variability as reflected by Local Lyapunov Exponents.*", AGU Fall Meeting 2011, San Francisco, CA, December 5-9, 2011.

C. Karamperidou, *Irregularity in ENSO predictability*, DOCP seminar, Lamont-Doherty Earth Observatory, December 2nd 2011.

C. Karamperidou, *GCM projections of mid-latitude storm tracks viewed through the prism of low-order models*, Workshop on Hierarchical Modeling of Climate, Trieste, Italy, 18 - 22 July 2011

C.Karamperidou, U. Lall, V. Engel, H. Kwon, J. Obeysekera. *Projecting Impacts of Uncertain Sea Level Variability and Rise on Coastal Groundwater Systems: South Florida Applications.*, AGU Fall Meeting 2009, San Francisco, 14-18 December 2009. ⇒ **and over 25 posters presented in AGU, EGU, and AMS meetings.**

TEACHING
EXPERIENCE

- Guest Instructor, *Dynamics of the El Niño Southern Oscillation Phenomenon*, Department of Meteorology, University of Hawaii
- Instructor, *The Subtropical Frontier: A summer school on climate trends, variability and extremes in the subtropics*, Navarino Environmental Observatory, Messinia, Greece, June 23-July 3, 2013.

Teaching Assistant

- *Dynamical Meteorology*, Instructor: F.-F. Jin, 2014 (U. Hawaii).
- *Dynamics of Climate Variability & Change*, Instructors: M.Cane & L. Goddard, 2011 (Columbia University).
- *River & Coastal Hydrodynamics*, Instructors: U. Lall & F. Cioffi, 2011 (Columbia University).
- *A Better Planet by Design*, Instructors: U. Lall & A.-H. Park, 2009 (Columbia University).
- *Environmental Engineering*, Instructor: G.Gong, 2008 (Columbia University).

SYNERGISTIC
ACTIVITIES

- Convener of AGU Session on "Dynamics and Predictability of Midlatitude Storms in a Changing Climate", AGU Fall Meetings 2011-2015
- Convener of Session on "Understanding and Modeling ENSO in past, present and future climates", AGU Ocean Science Meeting 2014
- Volunteer Judge and Mentor: Hawaii Association of Independent Schools, and Hawaii State Science and Engineering Fair.
- Organizer (in collaboration with the Columbia University Club of South Florida) of the panel discussion and open to the public event: "*The Future of Water: innovative interdisciplinary approaches for resilient adaptation to climate change in South Florida*".
- Reviewer: NSF proposals, Journal of Climate, Climate Dynamics, J. of Applied Meteorology & Climatology, Regional Environmental Change, Advances in Water Resources, Weather and Forecasting.

OTHER
ACADEMIC
TRAINING

Dissertations Initiative for the Advancement of Climate Change Research (DIS-CCRS), VII Symposium, October 12-19, 2013, La Foret Conference Retreat Center, Colorado Springs, CO

Community Earth System Modeling (CESM) Tutorial, 30 July - 03 August 2012, NCAR, Boulder, CO

Statistical Assessment of Extreme Weather Phenomena under Climate Change,

NCAR ASP Colloquium, June 6-24, 2011, Boulder, CO, USA

Workshop on Hierarchical Modeling of Climate, International Centre for Theoretical Physics (ICTP), Trieste, Italy, 18 - 22 July 2011.

Summer School on Biogeodynamics and Earth System Sciences (BESS), Venice, Italy, June 11-18 2010.

PROFESSIONAL SOCIETIES & ASSOCIATIONS American Geophysical Union (AGU), American Meteorological Society (AMS), European Geoscience Union (EGU), American Society of Civil Engineers (ASCE), International Association of Hydrogeologists, Technical Chamber of Greece (TEE-TCG)