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RESEARCH INTERESTS & SKILLS ENSO predictability, Response of mid-latitude atmospheric circulation to climate change and variability, ENSO in past climates, Dynamical Systems Theory, HydroInformatics.
Skills: Climate model simulations, Advanced statistical analysis, Model optimization.

EDUCATIONAL BACKGROUND	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

HONORS & AWARDS	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

APPOINTMENTS	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

FUNDED PROJECTS

- *"Understanding changing ENSO flavors in the mid-Holocene laboratory"*, National Science Foundation (PI)
- *"Studies on Dynamics of ENSO (El Niño-Southern Oscillation) Complexity"*, National Park Service, (post-Doctoral Research Assistant)
- *"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?"*, National Park Service, (co-PI and Graduate Research Assistant)
- *"Dynamics of the Hydrological Cycle in a Changing Climate: Interactions of Low Frequency Climate Mechanisms and Hydrologic Extremes"*, NASA (Earth & Space Science Fellow)
- *"Chrystechsalin (saltwater intrusion in coastal aquifers)"*, European Union (Undergraduate Research Assistant)

PUBLICATIONS

P.N. Di Nezio and **C. Karamperidou**, "Altered ENSO flavors during the mid-Holocene revealed by model-proxy synthesis", in prep.

K. Schollaen, **C. Karamperidou**, G. Helle, *"ENSO flavors in a tree-ring $\delta^{18}O$ record of *Tectona grandis* from Indonesia"*, submitted, *Climate of the Past*.

C. Karamperidou, P.N. Di Nezio, F.-F. Jin, A. Timmermann, K. Cobb *"The response of ENSO flavors to orbital forcing"*, submitted, *Paleoceanography*.

C. Karamperidou, M.A. Cane, U. Lall, A.T. Wittenberg, *"Intrinsic modulation of ENSO predictability viewed through a local Lyapunov lens."*, *Climate Dynamics*, doi: 10.1007/s00382-013-1759-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**, "ENSO nonlinearities and mean tropical climate change", The Tropics Rule: a symposium honoring Mark Canes' contribution to climate science, Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY USA, October 20-21, 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, "ENSO flavors in the mid-Holocene", AGU Fall Meeting 2012, San Francisco, CA December 3-7, 2012.

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 2011-2013
- 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)