

## Sang-Ki Lee

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### Education

PhD, Old Dominion University, Norfolk, Va (Oceanography)	1995
MSc, Old Dominion University, Norfolk, Va (Oceanography)	1993
BSc, Inha University, Incheon, South Korea (Oceanography)	1991

### Professional Service

Oceanographer, AOML, NOAA	2016 - Present
Scientist, CIMAS, University of Miami	2011 - 2016
Associate Scientist, CIMAS, University of Miami	2007 - 2011
Assistant Scientist, CIMAS, University of Miami	2005 - 2007
Postdoctoral Research Associate, CIMAS, University of Miami	2002 - 2004
Senior Research Engineer: Maritime Research Institute, Samsung Heavy Industries	1996 - 2001

### Selected publications in 2020-2021: H-index = 28; Total publications = 82

Chung, E. S., K. J. Ha, A. Timmermann, M. F. Stuecker, T. Bodai, and **S.-K. Lee**, 2020: Cold-season Arctic amplification driven by Arctic Ocean-mediated seasonal energy transfer. *Earths Future*, 8, e2020EF001898. <https://doi.org/10.1029/2020EF001898>.

Gronholz, A., S. Dong, H. Lopez, **S.-K. Lee**, G. Goni, and M. Baringer, 2020: Variability of the South Atlantic Ocean heat content in an eddy-resolving versus a non-eddy-resolving General Circulation Model. *Geophys. Res. Lett.*, 47, e2020GL089908. <https://doi.org/10.1029/2020GL089908>.

**Lee, S.-K.**, H. Lopez, D. Kim, A. T. Wittenberg, A. Kumar, 2021: A Seasonal Probabilistic Outlook for Tornadoes (SPOTter) in the Contiguous United States Based on the Leading Patterns of Large-Scale Atmospheric Anomalies. *Mon. Wea. Rev.*, 149, 901-919. <https://doi.org/10.1175/MWR-D-20-0223.1>.

Dong, S., H. Lopez, **S.-K. Lee**, C. Meinen, G. Goni and M. Baringer, 2020: What caused the large-scale heat deficit in the subtropical South Atlantic Ocean during 2009-2012? *Geophys. Res. Lett.*, 47, e2020GL088206. <https://doi.org/10.1029/2020GL088206>.

Gomez, F. A., R. Wanninkhof, L. Barbero, **S.-K. Lee**, and F. J. Hernandez Jr., 2020: Seasonal patterns of surface inorganic carbon system variables in the Gulf of Mexico inferred from a regional high-resolution ocean-biogeochemical model. *Biogeosciences*. <https://doi.org/10.5194/bg-17-1685-2020>.

Kim, D., **S.-K. Lee**, H. Lopez and M. Goes, 2020: Pacific mean-state control of Atlantic Multidecadal Oscillation-El Nino relationship. *J. Climate.*, 33, 4273-4291. <https://doi.org/10.1175/JCLI-D-19-0398.1>.

Kim, D., **S.-K. Lee** and H. Lopez, 2020: Madden-Julian Oscillation-induced suppression of northeast Pacific convection increases U.S. tornadogenesis. *J. Climate.*, 33, 4927-4939.

Kim, D., **S.-K. Lee** and H. Lopez, G. Foltz, V. Misra, and A. Kumar, 2020: On the role of Pacific-Atlantic SST contrast and associated Caribbean Sea Convection in August-October U.S. regional rainfall variability. *Geophys. Res. Lett.*, 47, e2020GL087736.

**Lee, S.-K.**, D. Kim, G. Foltz, and H. Lopez, 2020: Pantropical response to global warming and the emergence of a La Nina-like mean state trend. *Geophys. Res. Lett.*, 47, e2019GL086497. <https://doi.org/10.1029/2019GL086497>.

Valles-Casanova, I., **S.-K. Lee**, G. R. Foltz, and J. L. Pelegri, 2020: On the spatiotemporal diversity of Atlantic Nino and associated rainfall variability over West Africa and South America. *Geophys. Res. Lett.*, 47, e2020GL087108. <https://doi.org/10.1029/2020GL087108>.

Volkov, D., **S.-K. Lee**, A. L. Gordon, and M. Rudko, 2020: Unprecedented reduction and quick recovery of the South Indian Ocean heat content and sea level in 2014–2018. *Sci. Adv.* 6, eabc1151. <https://doi.org/10.1126/sciadv.abc1151>.

### Current Research Projects

NOAA/OAP (PI): High-resolution ocean-biogeochemistry modeling for the East & Gulf coasts of U.S.

NOAA/OAR (PI): S2S U.S. severe weather outlook development project

NOAA/CPO (PI): CCR Portfolio SOW 2020, Climate-Fish Labs

NOAA/CPO/MAPP (PI): Potential impacts of climate variability and change on the recent declines in coastal pelagic species along the U.S. Gulf and South Atlantic Bight

NOAA/WPO (PI): An optimized hybrid seasonal forecast system for U.S. regional precipitation in late-summer to mid-fall based on inter-basin SST and convection parameters

NOAA/NGI (coPI): Recent declines in coastal migratory pelagic species along the US Gulf and South Atlantic Bight and the potential impact of large-scale ocean circulation changes