

Young-Kwon Lim

Affiliation: 1. Environmental Planning Institute, Seoul National University, South Korea

2. University of Maryland, Baltimore County, Maryland, U. S. A.

Status: Chief Scientist

Email: ylim0503@snu.ac.kr; ylim@umbc.edu

Education and Employments:

- Chief Scientist, Environmental Planning Institute, Seoul National University, South Korea, and Senior Research Scientist, University of Maryland, Baltimore County, Maryland, U. S. A., November 2025 – present.
- Senior Research Scientist, University of Maryland, Baltimore County, and NASA Goddard Space Flight Center, Global Modeling and Assimilation Office, March 2020 – October 2025.
- Associate Research Scientist, NASA Goddard Space Flight Center, Global Modeling and Assimilation Office, January 2012 – February 2020.
- Assistant Research Scientist, NASA Goddard Space Flight Center, Global Modeling and Assimilation Office, July 2010 – December 2011.
- Assistant Research Professor, Center for Ocean-Atmospheric Prediction Studies (COAPS), Florida State University, September 2007 – July 2010.
- Postdoctoral researcher, Florida State University, August 2004 – August 2007.
- Ph.D., Meteorology, Florida State University, U. S. A., January 2000 – May 2004.
- M.S., Atmospheric Sciences, Seoul National University, South Korea, 1997.
- B.S., Earth Science, Seoul National University, South Korea, 1995.

Research Area of Expertise

- Climate variability and change
- Extreme weather/climate (heatwave, flood, drought, cold surge)
- Global climate models
- Tropical meteorology: tropical cyclone, convection, and ENSO
- Monsoon dynamics
- Large-scale climate teleconnections
- Subseasonal to seasonal (S2S) climate prediction
- Arctic/Antarctic climate variability
- Dynamical and statistical downscaling
- Impact of land uses on climate change

Involved Science Projects Record

- Evaluation on climate models' capability to represent the summertime extreme climates over East Asia in climate change condition and system development to advance their prediction skill, National Research Foundation (NRF) of Korea, 2025-present.

- An improved understanding of the role of the ocean surface salinity and salinity stratification in modulating tropical atmospheric intraseasonal oscillation, NASA, 2022-2025.
- Process and performance-based assessment of tropical cyclone and associated precipitation predictions in the NASA GEOS-S2S system for improved forecast skill, NASA, 2021-2025.
- Investigation on the effect of aerosol-cloud and aerosol-radiation interactions on subseasonal to seasonal forecast, NASA, 2021-2024.
- NASA's missions to study solar radiation and its impacts on Earth climate and space weather, NASA, 2020-2025.
- NASA GMAO subseasonal to seasonal prediction, NASA, 2016-2025.
- US CLIVAR Extreme climate working group, 2012-2019.
- Feedbacks, processes and impacts of contemporary and changes in the Arctic, NASA, 2015-2017.
- An analysis of the large-scale dynamical controls on tropical storm activity using the GEOS model and MERRA, NASA, 2013-2016.
- US CLIVAR Hurricane working group, 2011-2017.
- Simulating and predicting subseasonal and long-term changes in tropical storm characteristics using high-resolution climate models, NASA, Jul/2010-Dec/2012.
- Decision support system for reducing agricultural risks caused by climate variability, USDA CSREES (2009-38890-19911), Jul/2008-Jun/2010.
- NOAA Applied Research Center (ARC) regional assessment of interannual climate impacts and support for NOAA ocean observations, NOAA (NA06OAR4310070), Jun/2006-Jun/2010.
- Comparison of NCEP/NCAR and ERA-40 surface temperature trend, NSF (ATM-0403211), Jul/2004-Jul/2005.
- Studies on the Asian-Australian monsoon variability and predictability using physical decomposition, NSF (ATM-0353494), Mar/2004-Jul/2004.
- Studies in long-term noise statistics, regional climate sensitivity and predictability, DOE (DE-FG03-98ER62610), Jan/2000-Sep/2003.
- Studies and application of cyclostationary empirical orthogonal functions, NSF (ATM-9613748), Jan/2000-May/2003.

Professional Working Group Activity:

- Climate Tech and risk management, November 2025 – present
- The US National Multi-Model Ensemble project for global seasonal climate forecast, January 2012 – 2025
- Tropical-Storms: tropical cyclone science community, January 2015 – 2025
- US CLIVAR Extreme climate working group, May 2012 – 2020.
- US CLIVAR Hurricane working group, February 2011 – 2017.
- VAMOS (Extreme weather/climate working group), November 2010 – 2013.
- Southeast Climate Consortium (Working group for regional climate applications including climate adaptation and climate policy making), October 2006 – July 2010.

- Executive editorial coordinator of Asia-Pacific Journal of Atmospheric Sciences (APJAS), 2023-present
- KASA (Korean Atmospheric Scientists in America) chairperson, Mar/2012-Feb/2014.

Publications

- Srujan, K. S. S., C. Lee, J. Garcia-Franco, S. J. Camargo, M. K. Tippett, A. M. Molod, and **Y.-K. Lim**, 2025: Subseasonal forecasts of tropical cyclones using the new prediction system GEOS-S2S Version 3. submitted to *J. Geophys. Res. – Atmospheres*.
- Lim Y.-K.**, A. M. DeAngelis, N. P. Thomas, S. D. Schubert, Y. Chang, A. Collow, and A. Dezfuli, 2025: Remote forcing and prediction of the June 2023 Texas heatwave. *J. Climate*, **38**, 6397-6411, doi:10.1175/JCLI-D-25-0018.1.
- Du D., A. Subramanian, W. Han, **Y.-K. Lim**, E. C. Hackert, and A. M. Molod, 2025: Assessing the impact of satellite sea surface salinity assimilation on predicting the MJO propagation across Maritime Continent in NASA GEOS-S2S-2 model. *J. Climate*, **38**, 6463-6473, doi:10.1175/JCLI-D-24-0579.1.
- Garcia-Franco J. L., C. Lee, M. K. Tippett, S. J. Camargo, D. Kim, A. M. Molod, and **Y.-K. Lim**, 2025: Subseasonal prediction of tropical cyclone precipitation. *Wea. Forecasting*, **40**, 1429-1444, doi:10.1175/WAF-D-24-0185.1.
- Schubert S. D., Y. Chang, A. M. DeAngelis, **Y.-K. Lim**, R. D. Koster, M. G. Bosilovich, A. M. Molod, N. P. Thomas, and A. Dezfuli, 2025: Revisiting the causes and global and historical context of the US Midwest Great Flood of 1993. *J. Climate*, **38**, 4407-4425, doi:10.1175/JCLI-D-24-0430.1.
- Sim J., B. Kim, J. Lee, **Y.-K. Lim**, J. Kim, and J. Kim, 2025: Sea ice initialization and its impact on winter seasonal prediction skill over the Northern Hemisphere in coupled forecast system. *J. Climate*, **38**, 3989-4001, doi:10.1175/JCLI-D-24-0524.1.
- Garcia-Franco J. L., C. Lee, S. Camargo, M. Tippett, N. Emlaw, D. Kim, **Y.-K. Lim**, and A. M. Molod, 2024: Tropical cyclones in the GEOS-S2S-2 subseasonal forecasts. *Wea. Forecasting*, **39**, 1297-1318, doi: 10.1175/WAF-D-23-0208.1
- Schubert S. D., Y. Chang, A. M. DeAngelis, **Y.-K. Lim**, N. P. Thomas, R. D. Koster, M. G. Bosilovich, A. M. Molod, A. Collow, and A. Dezfuli, 2024: Insights into the causes and predictability of the 2022/23 California Flooding. *J. Climate*, **37**, 3613-3629, doi:10.1175/JCLI-D-23-0696.1.
- Massoud E. C., **Y.-K. Lim**, L. C. Andrews, and M. Girotto, 2024: Connecting Global Modes of Variability to Climate in High Mountain Asia. *Atmosphere*, **15(2)**, 142, doi:10.3390/atmos15020142.
- Lim Y.-K.**, D. L. Wu, K. Kim, and J. N. Lee, 2023: Decadal changes in the Antarctic sea ice response to the changing ENSO in the last four decades. *Atmosphere*, **14(11)**, 1659, doi:10.3390/atmos14111659.
- Garcia-Franco J. L., C. Lee, S. Camargo, M. K. Tippett, D. Kim, A. M. Molod, and **Y.-K. Lim**, 2023: Climatology of tropical cyclone precipitation in the S2S models. *Wea. Forecasting* **38**, 1759-1776, doi:10.1175/WAF-D-23-0029.1.
- DeAngelis, A. M., S. D. Schubert, Y. Chang, **Y.-K. Lim**, R. D. Koster, H. Wang, and A. Collow, 2023: Dynamical drivers of the exceptional warmth over Siberia during the spring of 2020. *J. Climate*, **36**, 4837-4861, doi:10.1175/JCLI-D-22-0387.1.
- Chang, Y., S. D. Schubert, R. Koster, A. Molod, and **Y.-K. Lim**, 2023: Climate characteristics of the atmospheric analysis increments from the GEOS S2S V3 AOGCM replayed to

- MERRA-2. NASA Technical Reports Series on Global Modeling and Data Assimilation. *NASA/TM-2021-104606*, Vol. 62, 147pp.
- Lim, Y.-K.**, D. Wu, K.-M. Kim, and J. N. Lee, 2022: Impact of the Arctic Oscillation from March on summertime sea ice. *Environ. Res.: Climate.*, **1(2)**, 021001, doi:10.1088/2752-5295/ac91e8.
- Jeong, Y.-C., S.-W. Yeh, **Y.-K. Lim**, A. Santoso, and G. Wang, 2022: Indian Ocean warming as key driver of long-term positive trend of Arctic Oscillation. *NPJ Climate and Atmos. Sci.*, **5:56**, doi:10.1038/s41612-022-00279-x.
- Schubert, S. D., Y. Chang, A. M. DeAngelis, R. Koster, **Y.-K. Lim**, and H. Wang, 2022: Exceptional warmth in the Northern Hemisphere during January through March of 2020: The roles of unforced and forced modes of atmospheric variability. *J. Climate*, **35**, 2565-2584, doi:10.1175/JCLI-D-21-0291.1.
- Collow, A. B. M., N. P. Thomas, M. G. Bosilovich, **Y.-K. Lim**, S. D. Schubert, and R. D. Koster, 2022: Seasonal variability in the mechanisms behind the 2020 Siberian heatwaves. *J. Climate*, **35**, 3075-3090, doi:10.1175/JCLI-D-21-0432.1.
- Stan, C., C. Zheng, E. K.-M. Chang, D. I. V. Domeisen, C. Garfinkel, A. M. Jenney, H. Kim, **Y.-K. Lim**, H. Lin, A. Robertson, C. Schwartz, F. Vitart, J. Wang, and P. Yadav, 2022: Advances in the prediction of MJO-teleconnections in the S2S forecast systems. *Bull. Amer. Meteor. Soc.*, **103(6)**:E1426-E1447, doi:10.1175/BAMS-D-21-0130.1.
- Lim, Y.-K.**, D. Wu, K.-M. Kim, and J. N. Lee, 2021: An investigation on seasonal and diurnal cycle of TOA shortwave radiation from DSCOVR/EPIC, CERES, MERRA-2 and ERA5. *Remote Sen.*, **13(21)**, 4595, doi:10.3390/rs13224595.
- Hong, J.-S., S.-W. Yeh, Y.-M. Yang, **Y.-K. Lim**, and K.-M. Kim, 2021: Understanding the weakening relationship of the Pacific Decadal Oscillation and Indian Ocean basin mode during boreal winter. Revised version under review in *Clim. Dyn.*
- Lim, Y.-K.**, N. P. Arnold, A. M. Molod, and S. Pawson, 2021: Seasonality in prediction skill of the Madden-Julian Oscillation and associated dynamics in Version 2 of NASA's GEOS-S2S forecast system. *J. Geophys. Res. - Atmospheres.*, **126(18)**, e2021JD034961, doi:10.1029/2021JD034961.
- Kim, H., M.-I. Lee, S.-Y. Kim, **Y.-K. Lim**, S. D. Schubert, and A. M. Molod, 2021: Representation of tropical storms by the Modern-Era Retrospective analysis for Research and Applications, version 2. *Asian-Pacific J. Atmos. Sci.*, **57**, 35-49, doi:10.1007/s13143-019-00169-y.
- Schubert, S. D., **Y.-K. Lim**, A. M. Molod, and A. M. Collow, 2021: A phenomenon-based decomposition of model-based estimates of boreal winter ENSO variability. NASA Technical Reports Series on Global Modeling and Data Assimilation. *NASA/TM-2021-104606*, Vol. 55, 88pp.
- Wu, D. L., J. N. Lee, K.-M. Kim, and **Y.-K. Lim**, 2020: Interannual variations of TOA albedo over the Arctic, Antarctic and Tibetan Plateau in 2000-2019. *Remote Sensing*, **12(9)**: 1460, doi:10.3390/rs12091460.
- Cullather, R. I., L. C. Andrews, M. J. Croteau, N. E. Digirolamo, D. K. Hall, **Y.-K. Lim**, B. D. Loomis, C. A. Shuman, and S. M. Nowicki, 2020: Anomalous circulation in July 2019 resulting in mass loss on the Greenland ice sheet. *Geophysical Research Letters.*, **47(17)**, doi:10.1029/2020GL087263.
- Lim, Y.-K.**, S. D. Schubert, Y. Chang, and H. Wang, 2020: The boreal winter El Niño precipitation response over North America: Insights into why January is more difficult to

- predict than February. *J. Climate.*, **33(20)**, 8651-8670, doi:10.1175/JCLI-D-19-0841.1.
- Molod, A. M., E. Hackert, Y. Vikhliav, B. Zhao, D. Barahona, G. Vernieres, A. Borovikov, R. Kovach, J. Marshak, S. Schubert, Z. Li, **Y.-K. Lim**, L. Andrew, R. Cullather, R. Koster, D. Achuthavarier, J. Carton, L. Coy, J. Friere, K. M. Longo, K. Nakada, and S. Pawson, 2020: GEOS-S2S Version 2: The GMAO high resolution coupled model and assimilation system for seasonal prediction. *J. Geophys. Res. – Atmosphere*, **125(5)**, e2019JD031767, doi:10.1029/2019JD031767.
- Choi, N., M.-I. Lee, D.-H. Cha, **Y.-K. Lim**, and K.-M. Kim, 2020: Decadal changes in the interannual variability of heatwaves in East Asia caused by atmospheric teleconnection changes. *J. Climate*, **33(4)**, 1505-1522, doi:10.1175/JCLI-D-19-0222.1.
- Barlow, M., W. J. Gutowski Jr., J. R. Gyakum, R. W. Katz, **Y.-K. Lim**, R. S. Schumacher, M. F. Wehner, L. Agel, M. G. Bosilovich, A. Collow, A. Gershunov, R. Grotjahn, R. Leung, S. Milrad, and S.-K. Min, 2019: North American extreme precipitation events and related large-scale meteorological patterns: a review of statistical methods, dynamics, modeling, and trends. *Climate Dynamics*, **53(11)**, 6835-6875, doi:10.1007/s00382-019-04958-z.
- Schubert, S. D., A. Borovikov, **Y.-K. Lim**, and A. M. Molod, 2019: Ensemble general strategies employed in the GMAO GEOS-S2S forecast system. NASA Technical Reports Series on Global Modeling and Data Assimilation. *NASA/TM-2019-104606*, Vol. 53, 75pp.
- Kim, H., M.-I. Lee, D.-H. Cha, **Y.-K. Lim**, and W. M. Putman, 2019: Improved representation of the diurnal variation of warm season precipitation by an atmospheric general circulation model in 10-km horizontal resolution. *Climate Dynamics*, **53(11)**, 6523-6542, doi:10.1007/s00382-019-04943-6.
- Lim, Y.-K.**, R. I. Cullather, S. M. J. Nowicki, and K.-M. Kim, 2019: Inter-relationship between subtropical Pacific sea surface temperature, Arctic sea ice concentration, and North Atlantic Oscillation in recent summers. *Scientific Reports*, **9**:3481, doi:10.1038/s41598-019-39896-7
- Choi, N., K.-M. Kim, **Y.-K. Lim**, and M.-I. Lee., 2019: Decadal changes in the leading patterns of sea level pressure in the Arctic and their impacts on the sea ice variability in boreal summer. *The Cryosphere*, **13(11)**, 3007-3021, doi:10.5194/tc-13-3007-2019.
- Seo, E., M.-I. Lee, D. Kim, **Y.-K. Lim**, S. D. Schubert, and K.-M. Kim, 2019: Interannual variation of tropical cyclones simulated by GEOS-5 AGCM with modified convection scheme. *International J. Climatol.*, doi:10.1002/joc.6058.
- Garfinkel, C., I. Weinberger, I. P. White, L. D. Oman, V. Aquila, and **Y.-K. Lim**, 2019: The salience of nonlinearities in the boreal winter response to ENSO: North Pacific and North America. *Climate Dynamics*, **52(7-8)**, 4429-4446, doi:10.1007/s00382-018-4386-x
- Lim, Y.-K.**, S. D. Schubert, R. Kovach, A. M. Molod, and S. Pawson, 2018: The roles of climate change and climate variability in the 2017 Atlantic hurricane season. *Scientific Reports*, **8**, doi:10.1038/s41598-018-34343-5
- Lim, Y.-K.**, S. D. Schubert, Y. Chang, A. M. Molod, and S. Pawson, 2018: The impact of SST-forced and unforced teleconnections on 2015/16 El Niño winter precipitation over the western United States. *J. Climate*, **31(15)**, 5825-5844, doi:10.1175/JCLI-D-17-0218.1.
- Ham, Y.-G., Y. Hwang, **Y.-K. Lim**, and M. Kwon, 2018: Inter-decadal variation of the tropical Atlantic-Korea (TA-K) teleconnection pattern during boreal summer season. *Climate Dynamics*, **51**, 2609-2621, doi:10.1007/s00382-017-4231-0.
- Lim, Y.-K.**, R. Kovach, S. Pawson, and G. Vernieres, 2017: The 2015/2016 El Niño event in context of the MERRA-2 reanalysis: A comparison of the tropical Pacific with 1982/1983

- and 1997/1998. *J. Climate*, **30**, 4819-4842, doi:10.1175/JCLI-D-16-0800.1
- Ok, J., M.-K. Sung, K. Sato, **Y.-K. Lim**, S.-J. Kim, E.-H. Baek, J.-H. Jeong and B.-M. Kim, 2017: How does the SST variability over the western North Atlantic Ocean control Arctic warming over the Barents/Kara Seas? *Environ. Res. Lett.*, **12(3)** 034021, doi:10.1088/1748-9326/aa5f3b.
- Cullather, R. I., **Y.-K. Lim**, L. Boisvert, L. Brucker, J.-N. Lee, and S. Nowicki, 2016: Analysis of the warmest Arctic winter, 2015-2016. *Geophys. Res. Lett.*, **43(20)**, doi:10.1002/2016GL071228.
- Xue, Y., F. D. Sales, W. K.-M. Lau, A. Boone, K.-M. Kim, C. R. Mechoso, G. Wang, F. Kucharski, K. Schiro, M. Hosaka, S. Li, L. M. Druryan, I. S. Sanda, W. Thiaw, N. Zeng, R. E. Comer, **Y.-K. Lim**, S. Mahanama, G. Song, Y. Gu, S. M. Hagos, M. Chin, S. D. Schubert, P. Dirmeyer, L. R. Leung, E. Kalnay, A. Kitoh, C.-H. Lu, N. M. Mahowald, Z. Zhang, 2016: West African monsoon decadal variability and drought and surface-related forcings: Second West African Monsoon Modeling and Evaluation Project Experiment (WAMME II) in the Special Issue "Decadal variability of West African monsoon, external surface forcings, and their modeling". *Clim. Dyn.*, **47(11)**, 3517-3545, doi:10.1007/s00382-016-3224-2.
- Lim, Y.-K.**, S. D. Schubert, O. Reale, A. M. Molod, M. J. Suarez, and B. M. Auer, 2016: Large-scale controls on Atlantic tropical cyclone activity on seasonal time scales. *J. Climate*, **29**, 6727-6749, doi:10.1175/JCLI-D-16-0098.1.
- Sung, M.-K., B.-M. Kim, E.-H. Baik, **Y.-K. Lim**, and S.-J. Kim, 2016: Arctic-North Pacific coupled impacts on late autumn cold in North America. *Environ. Res. Lett.*, **11(8)**, doi:10.1088/1748-9326/11/8/084016.
- Han, R., H. Wang, Z.-Z. Hu, A. Kumar, W. Li, L. N. Long, J.-K. E. Schemm, P. Peng, W. Wang, D. Si, X. Jia, M. Zhao, G. A. Vecchi, T. E. LaRow, **Y.-K. Lim**, S. D. Schubert, S. J. Camargo, N. Henderson, J. A. Jonas, and K. J. E. Walsh, 2016: An assessment of multi-model simulations for the variability of western North Pacific tropical cyclones and its association with ENSO. *J. Climate*, **29**, 6401-6423, doi:10.1175/JCLI-D-15-0720.1.
- Lim, Y.-K.**, and H.-D. Kim, 2016: Comparison of the impact of the Arctic Oscillation and Eurasian teleconnection on interannual variation in East Asian winter temperatures and monsoon. *Theor. Appl. Climatol.*, **124(1)**, 267-279, doi:10.1007/s00704-015-1418-x
- Grotjahn, R., R. Black, R. Leung, M. F. Wehner, M. Barlow, M. Bosilovich, A. Gershunov, W. J. Gutowski Jr., J. R. Gyakum, R. W. Katz, Y.-Y. Lee, **Y.-K. Lim**, and Prabhat, 2016: North American Extreme Temperature Events and Related Large Scale Meteorological Patterns: A review of statistical Methods, Dynamics, Modeling, and Trends. *Clim. Dyn.*, **46(3)**, 1151-1184, doi: 10.1007/s00382-015-2638-6.
- Lim, Y.-K.**, S. D. Schubert, S. M. J. Nowicki, J. N. Lee, A. M. Molod, R. I. Cullather, B. Zhao, and I. Velicogna, 2016: Atmospheric summer teleconnections and Greenland ice sheet surface mass variations: insights from MERRA-2. *Environ. Res. Lett.*, **11(2)**, doi:10.1088/1748-9326/11/2/024002.
- Walsh, K. J. E., S. J. Camargo, G. A. Vecchi, A. S. Daloz, J. Elsner, K. Emanuel, M. Horn, **Y.-K. Lim**, M. Roberts, C. Patricola, E. Scoccimarro, A. H. Sobel, S. Strazzo, G. Villarini, M. Wehner, M. Zhao, J. Kossin, T. LaRow, K. Oouchi, S. Schubert, H. Wang, J. Bacmeister, P. Chang, F. Chauvin, C. Jablonowski, H. Murakami, T. Ose, K. A. Reed, R. Saravanan, Y. Yamada, C. M. Zarzycki, P. L. Vidale, J. A. Jonas and N. Henderson, 2015: Correction to Hurricanes and climate: the U. S. CLIVAR working group on hurricanes.

- Bull. Amer. Meteor. Soc.* **96**, 1440, doi:10.1175/BAMS-D-15-00232.1
- Daloz, A. S., S. J. Camargo, J. P. Kossin, K. Emanuel, M. Horn, J.A. Jones, D. Kim, T. E. LaRow, **Y.-K. Lim**, M. Roberts, P. L. Vidale, C.M. Patricola, E. Scoccimarro, D. Shaevitz, H. Wang, M. Wehner and M. Zhao, 2015: Cluster analysis of downscaled and explicitly simulated North Atlantic tropical cyclone tracks. *J. Climate*, **28(4)**, 1333-1361, doi:10.1175/JCLI-D-13-00646.1
- Lim, Y.-K.**, 2015: The East Atlantic West Russia teleconnection in the North Atlantic: Climate impact and relation to Rossby wave propagation. *Clim. Dyn.*, **44**, 3211-3222, doi:10.1007/s00382-014-2381-4
- Walsh, K. J. E., S. J. Camargo, G. A. Vecchi, A. S. Daloz, J. Elsner, K. Emanuel, M. Horn, **Y.-K. Lim**, M. Roberts, C. Patricola, E. Scoccimarro, A. H. Sobel, S. Strazzo, G. Villarini, M. Wehner, M. Zhao, J. Kossin, T. LaRow, K. Oouchi, S. Schubert, H. Wang, J. Bacmeister, P. Chang, F. Chauvin, C. Jablonowski, H. Murakami, T. Ose, K. A. Reed, R. Saravanan, Y. Yamada, C. M. Zarzycki, P. L. Vidale, J. A. Jonas and N. Henderson, 2015: Hurricanes and climate: the U. S. CLIVAR working group on hurricanes. *Bull. Amer. Meteor. Soc.*, **96**, 997-1017, doi:10.1175/BAMS-D-13-00242.1
- Lim, Y.-K.**, S. D. Schubert, O. Reale, M.-Y. Lee, A. M. Molod, and M. J. Suarez, 2015. Sensitivity of tropical cyclones to parameterized convection in the NASA GEOS5 model. *J. Climate*, **28(2)**, 551-573, doi:10.1175/JCLI-D-14-00104.1
- Shaevitz, D. A., S. J. Camargo, A. H. Sobel, J. A. Jones, D. Kim, A. Kumar, T. E. LaRow, **Y.-K. Lim**, H. Murakami, M. J. Roberts, E. Scoccimarro, H. Wang, M. F. Wehner, and M. Zhao, 2014: Characteristics of tropical cyclones in high-resolution models in the present climate. *J. Adv. Model. Earth Syst.*, **6**, 1154-1172, doi:10.1002/2014MS000372
- Wang, H., L. Long, A. Kumar, W. Wang, J.-K. E. Schemm, M. Zhao, G. A. Vecchi, T. E. LaRow, **Y.-K. Lim**, S. D. Schubert, D. A. Shaevitz, S. J. Camargo, N. Henderson, D. Kim, J. A. Jonas, and K. J. E. Walsh, 2014: How well do global climate models simulate the variability of Atlantic tropical cyclones associated with ENSO? *J. Climate*, **27**, 5673-5692, doi:10.1175/JCLI-D-13-00625.1
- Kirtman, B., D. Min, J. M. Infanti, J. L. Kinter III, D. A. Paolino, Q. Zhang, H. van den Dool, S. Saha, M. P. Mendez, E. Becker, P. Peng, P. Tripp, J. Huang, D. G. DeWitt, M. K. Tippett, A. G. Barnston, S. Li, A. Rosati, S. D. Schubert, M. Rienecker, M. Suarez, Z. E. Li, J. Marshak, **Y.-K. Lim**, J. Tribbia, K. Pegion, W. J. Merryfield, B. Denis, and E. F. Wood, 2014: The North American multi-model ensemble (NMME): Phase-1 seasonal to interannual prediction, Phase-2 toward developing intra-seasonal prediction. *Bull. Amer. Meteor. Soc.*, **95**, 585-601.
- Lim, Y.-K.**, and H.-D. Kim, 2013: Impact of the dominant large-scale teleconnections on winter temperature variability over East Asia. *J. Geophys. Res.-Atmosphere*, **118**, doi:10.1002/2012JD019156, jgrd50462, 7835-7848.
- Zhao, M., I.M. Held, G. Vecchi, E. Scoccimarro, H. Wang, M. Wehner, **Y.-K. Lim**, T. E. LaRow, S. Camargo, K. Walsh, S. Gualdi, A. Kumar and S. Schubert, 2013: Robust direct effect of increasing atmospheric CO2 concentration on global tropical cyclone frequency- A multi-model inter-comparison. *U.S. CLIVAR Variations*, **11**, 17-23.
- Lim, Y.-K.**, Y.-G. Ham, J.-H. Jeong, and J.-S. Kug, 2012: Improvement in simulation of Eurasian winter climate variability with realistic Arctic sea ice condition in an atmospheric GCM. *Env. Res. Lett.*, **7**, 044041(6pp), doi:10.1088/1748-9326/7/4/044041.
- Schubert, S. D., and **Y.-K. Lim**, 2012: Climate variability and weather extremes: model

- simulated and historical data. Chapter 9 in a book entitled “Extremes in a changing climate: Detection, analysis, and uncertainty” by Sorooshian et. al. editors., Water Science and Technology Library 65, doi:10.1007/978-94-007-4479-0_9, Springer, 239-285.
- Lim, Y.-K.**, and S. D. Schubert, 2011: The impact of ENSO and the Arctic Oscillation on winter temperature extremes in the southeast United States. *Geophys. Res. Lett.*, **38**, L15706, doi:10.1029/2011GL048283.
- Lim, Y.-K.**, L. Stefanova, S. Chan, S. D. Schubert, and J. J. O’Brien, 2011: High-resolution subtropical summer precipitation derived from dynamical downscaling of the NCEP/DOE reanalysis: How much small-scale information is added by a regional model? *Clim. Dyn.*, **37**, 1061-1080, doi:10.1007/s00382-010-0891-2.
- Lim, Y.-K.**, D. W. Shin, S. Cocke, S.-D. Kang, and H.-D. Kim, 2011: Simulation of the Indian summer monsoon development by the comprehensive atmosphere-land interaction in the absence of two-way air-sea interaction. *Clim. Res.*, **46**, 85-99.
- Shin, D. W., G. Baiggoria, **Y.-K. Lim**, S. Cocke, T. E. LaRow, J. J. O’Brien, and J. W. Jones, 2010: Assessing maize and peanut yield simulations with various climate data in the southeast United States. *J. Appl. Meteor. Climatol.*, **49**, 592-603, doi:10.1175/2009JAMC2293.1.
- Lim, Y.-K.**, S. Cocke, D. W. Shin, J. T. Schoof, T. E. LaRow., and J. J. O’Brien, 2010: Downscaling large-scale NCEP CFS to resolve the fine-scale seasonal precipitation and extremes for the crop growing seasons over the southeastern United States. *Clim. Dyn.*, **35**, 449-471, doi:10.1007/s00382-009-0671-z.
- Schoof, J. T., D. W. Shin, S. Cocke, T. E. LaRow, **Y.-K. Lim**, and J. J. O’Brien, 2009: Dynamically and statistically downscaled seasonal temperature and precipitation hindcast ensembles for the southeastern USA. *Int. J. Climatol.* **29**, 243-257, doi:10.1002/joc.1717.
- Pielke, R. A., C. A. Davey, D. Niyogi, S. Fall, J. Steinweg-Woods, K. Hubbard, X. Lin, M. Cai, **Y.-K. Lim**, H. Li, J. Nielsen-Gammon, K. Gallo, R. Hale, J. Angel, R. Mahmood, S. Foster, R. T. McNider, and P. Blanken, 2009: Reply to comment by David E. Parker et al. on “Unresolved issues with the assessment on multi-decadal global land surface temperature trends”. *J. Geophys. Res.*, **114**, D05105, doi:10.1029/2008JD010938.
- Lim, Y.-K.**, M. Cai, E. Kalnay, and L. Zhou, 2008: Impact of vegetation types on surface temperature change. *J. Appl. Meteor. Climatol.*, **47**, 411-424.
- LaRow, T. E., **Y.-K. Lim**, D. W. Shin, S. Cocke, and E. P. Chassignet, 2008: Atlantic basin seasonal hurricane simulations. *J. Climate*, **21**, 3191-3206.
- Kalnay, E., M. Cai, M. Nunez, and **Y.-K. Lim**, 2008: Impacts of urbanization and land surface changes on climate trends. *International Association for Urban Climate*, **27**, 5-9.
- Lim, Y.-K.**, D. W. Shin, S. Cocke, T. E. LaRow, J. T. Schoof, J. J. O’Brien, and E. P. Chassignet, 2007: Dynamically and statistically downscaled seasonal simulations of maximum surface air temperature over the southeast United States. *J. Geophys. Res – Atmosphere*, **112**, D24102, doi:10.1029/2007JD008764.
- Lim, Y.-K.**, and K.-Y. Kim, 2007: ENSO impact on the space-time evolution of the regional Asian summer monsoons. *J. Climate*, **20**, 2397-2415.
- Pielke, R. A., C. A. Davey, D. Niyogi, S. Fall, J. Steinweg-Woods, K. Hubbard, X. Lin, M. Cai, **Y.-K. Lim**, H. Li, J. Nielsen-Gammon, K. Gallo, R. Hale, J. Angel, R. Mahmood, S. Foster, R. T. McNider, and P. Blanken, 2007: Unresolved issues with the assessment of multi-decadal global land-surface temperature trends. *J. Geophys. Res.-Atmosphere*, **112**,

D24S08, doi:10.1029/2006JD008229.

- Lim, Y.-K.**, and K.-Y. Kim, 2006: A new perspective on long-range prediction of monsoon precipitation. *J. Climate*, **19**, 4840-4853.
- Lim, Y.-K.**, M. Cai, E. Kalnay, and L. Zhou, 2005: Observational evidences of sensitivity of climate changes to land types and urbanization. *Geophys. Res. Lett.* **32**, L22712, doi:10.1029/2005GL024267.
- Lim, Y.-K.**, 2004: Diagnosis of the Asian summer monsoon variability and the climate prediction of monsoon precipitation via physical decomposition. *Florida State University, PhD dissertation*, 165pp.
- Lim, Y.-K.**, K.-Y. Kim, and H.-S. Lee, 2002: Temporal and spatial evolution of the Asian summer monsoon in the seasonal cycle of synoptic fields. *J. Climate*, **15**, 3630-3644.
- Cho, H.-M., **Y.-K. Lim**, J.-W. Kim, J.-K. Kim and J.-Y. Kim, 2000: The features of global atmospheric CO₂ distribution pattern. *J. Korean Meteor. Sci.*, **36**, 167-178.
- Lim, Y.-K.**, S.-N. Oh, W.-T. Yun, and Y.-S. Chun, 2000: A study on the simulation of three-dimensional wind field considering complex terrain and land uses in the region of Seoul. *J. Korean Meteor. Sci.*, **36**, 229-244.
- Kang, I.-S., C.-H. Ho, **Y.-K. Lim** and K.-M. Lau, 1999: Principal modes of climatological seasonal and intraseasonal variations of the Asian summer monsoon. *Mon. Wea. Rev.*, **127**, 322-340.

Other Publications (report, magazine, and dissertation)

- Lim, Y.-K.**, O. Reale, K. Mersmann, M. Lentz, and E. T. Gary, 2017: Building a hurricane season in the Atlantic Ocean. NASA Scientific Visualization Studio. <https://svs.gsfc.nasa.gov/12628>
- US CLIVAR Hurricane working group members including **Y.-K. Lim** 2013: VARIATIONS. *Fall2013 edition of Variations*, **11**, No.3.
- Seo, K.-H., and coeditors including **Y.-K. Lim**, 2011: *장마백서*. Korean Meteorological Administration.
- Shin, D. W., G. A. Baigorria, **Y.-K. Lim**, S. Cocke, T. E. LaRow, J. J. O'Brien, and J. W. Jones, 2009: Assessing crop yield simulations with various seasonal climate data. *Science and Technology Infusion Climate Bulletin*
- Lim, Y.-K.**, 2008: Applied meteorology in southeastern United States: Application to primary industry and prevention of hurricane damage. *Meteorological technology and policy*, **1(2)**, 55-64.
- Lim, Y.-K.**, D. W. Shin, T. E. LaRow, and S. Cocke, 2007: Categorical predictability of regionalized surface temperature and precipitation over the southeast United States. *Research Activities in Atmospheric and Ocean Modeling*, CAS/JSC Working Group on Numerical Experimentation.
- Lim, Y.-K.**, T. E. LaRow, J. J. O'Brien, and D. W. Shin, 2006: Statistical downscaling of FSUGSM temperature over the southeast United States. *Research Activities in Atmospheric and Ocean Modeling*, CAS/JSC Working Group on Numerical Experimentation.
- Cai, Ming, **Y.-K. Lim**, and E. Kalnay, 2004: Report on the comparison of the surface temperature trends derived from the GHCN/CRU and the ERA40 and NNR reanalysis datasets. *Reports of the National Science Foundation*.
- Lim, Y.-K.**, 2004: Diagnosis of the Asian summer monsoon variability and the climate prediction of monsoon precipitation via physical decomposition. Doctoral dissertation. Department of Meteorology, Florida State University, 165pp.
- Lim, Y.-K.**, 1997: Characteristic features and spatial structures of the synoptic fields associated with Changma. Master's thesis, Department of Atmospheric Sciences, Seoul National University, 77pp.