

Sumant Nigam's Peer-Reviewed Publications (*Student; **Research Colleague)

112. Nigam, S., N. Thomas*, A. Ruiz-Barradas**, and A. Sengupta*, 2025: Significant contribution of multidecadal ocean variability in the recent warming of Northern Continents. To be submitted in August.
111. Nigam, S., N. P. Thomas*, and A. Ruiz-Barradas**, 2025: Surface Warming over West Antarctica and the Ross Ice Shelf: Contribution of Multidecadal Variability and the Role of Regional Orography. To be submitted to GRL in December.
110. Ruiz-Barradas**, A., S. Nigam, and R. Eager*, 2025: Sectoral Preferences in Seasonal Arctic Sea Ice Loss: The Role of Continental Runoff. To be submitted to GRL in October.
109. A. Sengupta*, S. Nigam, and A. Ruiz-Barradas**, 2025: SST-based statistical prediction of the South Asian summer monsoon rainfall distribution – Competitive with dynamical prediction? To be submitted in September.
108. Ruiz-Barradas**, A., and S. Nigam, 2024. Climate and Climate Change in the Mekong River Basin. Chapter 1 in the Book: *The Mekong River Basin: Ecohydrological Complexity from Catchment to Coast*, Elsevier, 600pp. Eds. H. Q. Nguyen, H. Apel, Q. B. Le, V. Sridhar. ISBN 9780323908146.
107. Guan, B., and S. Nigam, 2023: [Pacific-North American Teleconnection Tumbles Snowfall Records West of the Cascades during Christmas Week 2021](#). *Bull. Amer. Meteor. Soc.*, **104**, E1314-E1322.
106. Hicks*, J., B. Guan, S. Nigam, and A. Ruiz-Barradas**, 2023: [Large-Scale Circulation Context for North American West Coast Atmospheric Rivers: Influence of the Subseasonal NPO/WP Teleconnection](#). *J. Geophys. Res.*, **128**, Issue 17, e2023JD038693. <https://doi.org/10.1029/2023JD038693>
105. Averill, J. D., T. P. McAllister, A. K. Persily, S. Weaver, J. Whetstone, J. C. Yang, M. Kuperberg, S. Nigam, and A. Ruiz-Barradas, 2022: *Workshop on Incorporating Climate Change Data in U.S. Building Codes and Standards*. [NIST Special Publication NIST SP 1291](#).
104. Nigam, S., and A. Sengupta*, 2021: [The Full Extent of El Niño's Precipitation Influence on the United States and the Americas: The Sub-Optimality of the Niño 3.4 SST Index](#). *Geophys. Res. Lett.*, **48**, e2020GL091447. <https://doi.org/10.1029/2020GL091447>
103. N. Thomas*, S. Nigam, and V. Ravi*, 2021: [Seasonality in the Vertical Structure of Long-Term Temperature Trends over North America](#). *Atmosphere-Ocean*, 1–10 <https://doi.org/10.1080/07055900.2020.1855409>
102. Nigam, S., A. Ruiz-Barradas**, and A. Sengupta*, 2021: [The Chennai Water Crisis: Insufficient Rainwater or Suboptimal Harnessing of Runoff?](#) *Current Science* (Indian Academy of Sciences), **120**, 1, 43-55 (10 January).
101. Nigam, S., A. Sengupta*, and A. Ruiz-Barradas**, 2020: [Atlantic-Pacific Links in Observed Multidecadal SST Variability: Is Atlantic Multidecadal Oscillation's Phase-Reversal Orchestrated by Pacific Decadal Oscillation?](#) *J. Climate*, **33**, 5479-5505.
100. Nigam, S. and N. Thomas*, 2019: [The Sahara Desert Hydroclimate and Expand: Natural Variability and Climate Change](#). Invited Chapter in *Encyclopedia of the World's Biomes*, Elsevier; <https://doi.org/10.1016/B978-k0-12-409548-9.12034-2>
99. [Climate Change: An Information Statement of the American Meteorological Society](#) (2019; Nigam – Drafting Committee Chair); Adopted by AMS Council on 15 April 2019; *Bull. Amer. Meteor. Soc.*, **100**, xxxxxxxx
98. Sengupta*, A., and S. Nigam, 2019: [The Northeast Winter Monsoon over the Indian Subcontinent and Southeast Asia: Evolution, Interannual Variability, and Model Simulations](#). *J. Climate*, **32**, 231-249.
97. Ruiz-Barradas**, A., L. Chafik, S. Nigam, and S. Hakkinen, 2018: [Recent Subsurface North Atlantic Cooling Trend in context of Atlantic Decadal-to-Multidecadal Variability](#). *Tellus A: Dynamical Meteorology & Oceanography*, **70**, 1481688, <https://doi.org/10.1080/16000870.2018.1481688>.
96. Thomas*, N., and S. Nigam, 2018: [Sahara Desert Expands in the 20th-Century](#). *Bull. Amer. Meteor. Soc.*, Papers of Note, **99**, 1123-1124.

95. Ruiz-Barradas**, A., and S. Nigam, 2018: [Hydroclimate Variability and Change over the Mekong River Basin: Modeling, and Predictability and Policy Implications](#). *J. Hydrometeorol.*, **19**, 849-869.
94. Thomas*, N., and S. Nigam, 2018: [20th-Century Climate Change over Africa: Seasonal Hydroclimate Trends and Sahara Desert Expansion](#). *J. Climate*, **31**, 3349-3370.
[NSF & UMD-CMNS Press Release](#); [Washington Post \(3/30 print ed., pg. A17\)](#); [Other Media Coverage](#)
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89. Chafik, L, and co-authors (S Nigam), 2016: [Global linkages originating from decadal oceanic variability in the subpolar North Atlantic](#). *Geophys. Res. Lett.*, 10.1002/2016GL071134
88. Nigam, S., 2016: Atmospheric Science of Humid Areas: [Why are humid areas humid?](#) Invited peer-reviewed book chapter in *Managing Water and Biodiversity in Humid Areas, Rosenberg International Forum on Water Policy* (Editor: Henry Vaux), California Institute for Water Resources, University of California; pgs. 35-54.
87. Nigam, S., and A. Ruiz-Barradas**, 2016: [Key Role of the Atlantic Multidecadal Oscillation in 20th Century Drought and Wet Periods over the US Great Plains and the Sahel](#). Invited book chapter (pgs. 255-270) in *Dynamics and Predictability of Large-scale High-Impact Weather and Climate Events*. Cambridge University Press; ISBN: 9781316468746.
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