

## COLA REFEREED PUBLICATIONS 2012

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### 2012:

1. **Achuthavarier**, D., and V. **Krishnamurthy**, 2012: Role of sea surface temperature in the Indian and Pacific Oceans in the Indian summer monsoon intraseasonal variability. *J. Climate* (in press), doi:10.1175/2010JCLI3639.1
2. **Achuthavarier**, D., V. **Krishnamurthy**, B. P. Kirtman, and B. **Huang**, 2012: Role of Indian Ocean in the ENSO-Indian summer monsoon teleconnection in the NCEP Climate Forecast System. *J. Climate*, 25, 2490-2508.
3. Bagley, J. E., A. R. Desai, P. A. **Dirmeyer**, and J. A. Foley, 2012: Effects of land cover change on precipitation and crop yield in the world's breadbaskets. *Env. Res. Lett.* (in press)
4. Bao, Z.-H., R. Kelly, and R. **Wu**, 2012: Variability of regional snow cover in spring over western Canada and its relationship to temperature and circulation anomalies. *Int. J. Climatol.*, DOI:10.1002/joc.2155. (in press)
5. Cai, M., and B. **Huang**, 2012: A dissection of energetics of the geostrophic flow: reconciliation of Rossby wave energy flux and group velocity. *J. Atmos.Sci.* (submitted).
6. Cai, M., and B. **Huang**, 2012: A new look at the physics of Rossby Waves: A mechanical-Coriolis oscillation. *J. Atmos. Sci.* (in press)
7. Chen, G., J. **Lu**, and L. Sun, 2012: Delineating the eddy-zonal flow interaction in theatmospheric circulation response to climate forcing: Uniform SST warming. *J. Atmos. Sci.* (in press).
8. **Chen**, H., E. K. **Schneider**, B. P. Kirtman, and I. **Colfescu**, 2012: Comparison of a coupled model and an SST forced atmospheric model. *J. Climate*. (submitted)
9. **DelSole**, T., L. **Jia** and M. K. Tippett, 2012: Decadal Prediction of Observed and Simulated Sea Surface Temperatures, *Geophys. Res. Lett.* (submitted)
10. **DelSole**, T., X. **Yang**, and M. K. Tippett, 2012: Is unequal weighting significantly better than equal weighting for multi-model forecasting? *Quart. J. Roy. Meteor. Soc.* (submitted)
11. DeMott, C. A., **Stan**, C., and D. A. Randall, 2012:Northward propagation mechanisms of the Boreal Summer Intraseasonal Oscillation in the ERA-Interim Reanalysis and SP-CCSM. *J. Climate*. (in press)
12. **Dirmeyer**, P. A. B. A. **Cash**, J. L. **Kinter III**, T. Jung, L. **Marx**, M. Satoh, C. **Stan**, H. Tomita, P. Towers, N. Wedi, D. **Achuthavarier**, J. M. **Adams**, E. L. **Altshuler**, B. **Huang**, E. K. **Jin**, and J. **Manganello**, 2012: Simulating the diurnal cycle of rainfall in global climate models: Resolution versus parameterization. *Climate Dyn.*, 39, 399-418, doi: 10.1007/s00382-011-1127-9.
13. **Dirmeyer**, P. A., B. A. **Cash**, J. L. **Kinter III**, C. **Stan**, T. Jung, L. **Marx**, P. Towers, N. Wedi, J. M. **Adams**, E. L. **Altshuler**, B. **Huang**, E. K. **Jin**, and J. **Manganello**, 2012: Evidence for Enhanced Land-Atmosphere Feedback in a Warming Climate. *J. Hydrometeorol.* 13, 981-995.
14. **Fan**, M. and E. K. **Schneider**, 2012: Observed decadal North Atlantic tripole SST variability. Part I: Weather noise forcing and coupled response. *J. Atmos. Sci.* 69, 35-50.
15. **Feng**, X., T. **DelSole**, and P. Houser, 2012: Methods for estimating potential seasonal predictability. Part I: Analysis of Covariance. *J. Climate*. (in press)
16. **Guo**, Z.-C. and P. A. **Dirmeyer**, 2012: Interannual variability of land-atmosphere coupling strength. *J. Hydrometeorol.* (submitted)
17. **Guo**, Z.-C., P. A. **Dirmeyer**, T. **DeSole**, and R. D. Koster, 2012: Rebound in atmospheric predictability rebound and the role of land surface. *Journal of Climate*, 25, 4744-4749. DOI: 10.1175/JCLI-D-11-00651.1

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  19. Hu, Z.-Z., B. **Huang**, J. L. **Kinter III**, Z. Wu and A. Kumar, 2012: Connection of Stratospheric QBO with Global Atmospheric General Circulation and Tropical SST. Part I: Methodology and Composite Life Cycle. *Climate Dyn.* **18**, 1-23.
  20. Hu, Z.-Z., A. Kumar, B. **Huang** and J. **Zhu**, 2012: Leading modes of the upper ocean temperature interannual variability along the equatorial Atlantic Ocean in NCEP GODAS. *J. Climate*. (submitted)
  21. Hu, Z.-Z., A. Kumar, B. **Huang**, W. Wang, J. **Zhu**, and C. Wen, 2012: Prediction skill of monthly SST in the North Atlantic Ocean in NCEP Climate Forecast System Version 2. *Climate Dyn.* DOI: 10.1007/s00382-012-1431-z (published online).
  22. **Huang**, B., Z.-Z. Hu, E.K. **Schneider**, Z. Wu, Y. Xue, and B. **Klinger**, 2012: Influences of tropical-extratropical interaction on the multidecadal AMOC variability in the NCEP Climate Forecast System. *Clim. Dyn.*, **39**, 531-555, DOI 10.1007/s00382-011-1258-z.
  23. **Huang**, B., Z.-Z. Hu, J. L. **Kinter III**, Z. Wu, and A. Kumar, 2012: Connection of stratospheric QBO with global atmospheric general circulation and tropical SST. Part I: Methodology and composite life cycle. *Clim. Dyn.*, **38**, 1-23, DOI 10.1007/s00382-011-1250-7.
  24. **Jang**, Y., and D. M. **Straus**, 2012a: Tropical Stationary Wave Response to ENSO: Diabatic Heating Influence on the Indian summer monsoon, *J. Atmos. Sci.* (submitted)
  25. **Jang**, Y., and D. M. **Straus**, 2012b: The Indian Monsoon Circulation Response to El Niño Diabatic Heating. *J. Climate*. (submitted)
  26. **Jia**, L. and T. **DelSole**, 2012: The limits of detecting forced responses on seasonal and continental scales. *J. Climate*. (submitted)
  27. **Jia**, L., T. **DelSole**, 2012: Multi-year Predictability of Temperature and Precipitation Identified in Climate Models, *Geophys. Res. Lett.*, **39**, doi:10.1029/2012GL052778.
  28. **Jia**, L., and T. **DelSole**, 2012: Optimal Determination of Time-Varying Climate Change Signals, *J. Climate*, **25**, 7122-7137.
  29. **Kinter III**, J. L., B. **Cash**, D. **Achuthavarier**, J. **Adams**, E. **Altshuler**, P. **Dirmeyer**, B. **Doty**, B. **Huang**, E. K. **Jin**, L. **Marx**, J. **Manganello**, C. **Stan**, T. **Wakefield**, T. Palmer, M. Hamrud, T. Jung, M. Miller, P. Towers, N. Wedi, M. Satoh, H. Tomita, C. Kodama, T. Nasuno, K. Oouchi, Y. Yamada, H. Taniguchi, P. Andrews, T. Baer, M. Ezell, C. Halloy, D. John, B. Loftis, R. Mohr, and K. Wong, 2012: Revolutionizing Climate Modeling – Project Athena: A Multi-Institutional, International Collaboration. *Bull. Amer. Meteor. Soc.* (in press)
  30. Kirtman, B. P., C. Bitz, F. Bryan, W. Collins, J. Dennis, N. Hearn, J. L. **Kinter III**, R. Loft, C. Rousset, L. Sequeira, C. **Stan**, R. Tomas, and M. Vertenstein, 2012: Impact of ocean model resolution on CCSM climate simulations. *Clim. Dyn.*, **39**, 1303-1328. doi:10.1007/s00382-012-1500-3.
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  32. **Krishnamurthy**, L., 2012: Influence of Decadal Variability of Global Oceans on South Asian Monsoon and ENSO-Monsoon Relation. *Ph.D. Dissertation*, George Mason University,
  33. **Krishnamurthy**, L., V. **Krishnamurthy**, 2012: Impact of Pacific decadal oscillation on the South Asian monsoon and ENSO-monsoon relation. *J. Climate*. (submitted)
  34. **Krishnamurthy**, L., V. **Krishnamurthy**, 2012: Multidecadal oscillations in the Indian monsoon rainfall related to oceanic variability. *J. Climate*. (submitted)
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36. Krishnamurthy, V., and D. Achuthavarier, 2012: Intraseasonal oscillations of the monsoon circulation over South Asia. *Climate Dyn.*, 38, 2335-2353.
37. Krishnamurthy, V., and J. Shukla, 2012: Predictability of the Indian monsoon in coupled general circulation models. *Monsoon Monograph*, 2, eds., A. Tyagi et al., 266-306, India Meteorological Department, New Delhi.
38. Kumar, A., M. Chen, L. Zhang, W. Wang, Y. Xue, C. Wen, L. Marx, B. Huang, 2012: An analysis of the non-stationarity in the bias of sea surface temperature forecasts for the NCEP Climate Forecast System (CFS) Version 2. *Mon. Wea. Rev.* (in press)
39. Kumar S., P. A. Dirmeyer, V. Merwade, T. DelSole, J. M. Adams, and D. Niyogi, 2012: Land Use/Cover Change Impacts in CMIP5 Climate Simulations -A New Methodology and 21st Century Challenges, *J. Geophys. Res.* (submitted)
40. Kumar S., J. L. Kinter III, P. A. Dirmeyer, Z. Pan and J. Adams, 2012: Multi-decadal Climate Variability and the 'Warming Hole' in North America – results from CMIP5 20<sup>th</sup> and 21<sup>st</sup> Century Climate Simulations, *J. Climate*. (submitted)
41. Kumar S., V. Merwade D. Niyogi J. L. Kinter III, 2012: Evaluation of Temperature and Precipitation Trends and long-term Persistence in CMIP5 20<sup>th</sup> Century Climate Simulations. *J. Climate*. (submitted)
42. Kumar S., V. Merwade, S. Rao, and B. C. Pijanowski, 2012: Characterizing Long-Term Land Use/Cover Change in the United States from 1850 to 2000 Using a Nonlinear Bi-analytical Model, *AMBIO*. DOI 10.1007/s13280-012-0354-6
43. Lu, J. and B. Zhao, 2012: The oceanic feedback in the climate response to greenhouse gas forcing. *J. Climate*, doi: <http://dx.doi.org/10.1175/JCLI-D-11-00712.1>
44. Mahmood, R., R. A. Pielke Sr., K. G. Hubbard, D. Niyogi, P. A. Dirmeyer, P. Lawrence, C. McAlpine, A. M. Carleton, R. Hale, S. Gameda, A. Beltrán-Przekurat, B. Baker, R. McNider, D. R. Legates, M. Shepherd, J. Du, P. Blanken, O. Frauenfeld, U. S. Nair, and S. Fall 2012: Land use/land cover changes and their biogeophysical effects on climate. *Rev. Geophys.* (submitted)
45. Manganello, J. V., K. I. Hodges, J. L. Kinter III, B. A. Cash, L. Marx, T. Jung, D. Achuthavarier, J. M. Adams, E. L. Altshuler, B. Huang, E. K. Jin, C. Stan, P. Towers and N. Wedi, 2012: Tropical Cyclone Climatology in a 10-km Global Atmospheric GCM: Toward Weather-Resolving Climate Modeling. *J. Climate* doi: <http://dx.doi.org/10.1175/JCLI-D-11-00346.1>.
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49. Mukhopadhyay, P., S. Taraphdar, Fuqing Zhang, A.K. Sahai, R. P. Shukla and B. N. Goswami, 2012: Mesoscale Predictability for Monsoon Depressions: Combined role of moist convection and resolution. *J. Atmos. Sci.* (submitted)

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52. **Palipane**, E., J. **Lu**, G. Chen, J. L. **Kinter III**, 2012: Improved Annular Mode Variability in ECMWF's Integrated Forecast System at 16-km Horizontal Resolution. *Geophys. Res. Lett.* (submitted)
53. Pan, Z., X. Liu, S. **Kumar**, Z. Gao and J. L. **Kinter III**, 2012: Inter-model variability and mechanism attribution of central and southeastern U.S. anomalous cooling in the 20<sup>th</sup> century as simulated by CMIP5 models. *J. Climate.* (submitted)
54. **Paolino**, D.A., J. L. **Kinter III**, B. P. Kirtman, D. Min and D. M. **Straus**, 2012: The impact of land surface and atmospheric initialization on seasonal forecasts with CCSM. *J. Climate*, 25, 1007-1021.
55. Sahoo, A. K., P. R. Houser, P. A. **Dirmeyer**, and M. Kafatos, 2012: Statistical characterization of soil moisture variations in the Little River Experimental Watershed (LREW), Georgia. *J. Hydrol.* (submitted)
56. **Schneider**, E. K. and M. **Fan**, 2012: Observed decadal North Atlantic tripole SST variability. Part II: Diagnosis of mechanisms. *J. Atmos. Sci.* 69, 51-64.
57. Sheffield, J., S. J. Camargo, R. Fu, Q. Hu, X. Jiang, N. Johnson, K. Karnauskas, J. L. **Kinter III**, S. **Kumar**, B. Langenbrunner, E. Maloney, A. Mariotti, J. E. Meyerson, D. Neelin, Z. Pan, A. Ruiz-Barradas, R. Seager, Y. L Serra, D.-Z. Sun, C. Wang, S.-P. Xie, J.-Y. Yu, T. Zhang, and M. Zhao, 2012: North American Climate in CMIP5 Experiments. Part II: Evaluation of 20th Century Intra-Seasonal to Decadal Variability. *J. Climate.* (submitted)
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60. **Solomon**, A., G. Chen and J. **Lu**, 2012: Finite Amplitude Lagrangian-mean Wave Activity Diagnostics Applied to the Baroclinic Eddy Life-Cycle. *J. Atmos. Sci.*, doi: <http://dx.doi.org/10.1175/JAS-D-11-0294.1>
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66. Wallace, J. M., J. **Shukla**, B. Hoskins, G. North, L. Bengtsson, J. L. **Kinter III**, E. Sarachik, B. N. Goswami, and S. Rayner, 2012: Scientific Context for Human-Induced Climate Change: Summary Report of a Workshop International Centre for Theoretical Physics, Trieste, Italy August 6-7 2012. *Eos Trans. Amer. Geophys. Soc.* (submitted)
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69. **Wu**, R., S. Yang, S. Liu, L. Sun, Y. Lian, and Z.-T. Gao, 2012b: Northeast China summer temperature and North Atlantic SST. *J. Geophys. Res.* (submitted)
70. **Xu**, L., and P. **Dirmeyer**, 2012a: Snow-atmosphere coupling strength. Part I: Effect of model biases. *J. Hydrometeor.* (submitted)
71. **Xu**, L. and P. **Dirmeyer**, 2012: Climate predictability from Snow boundary forcings: albedo and hydrological effect. *Theor. Appl. Climatol.* (submitted)
72. **Xu**, L., and P. **Dirmeyer**, 2012c: Climate predictability from snow boundary forcings: albedo and hydrological effect. *Quart. J. Roy. Meteor. Soc.* (submitted)
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76. Zhang, R.-H., F. Zheng, J. **Zhu**, Y. Pei, Q. Zheng, and Z. Wang, 2012b: Modulation of El Niño-Southern Oscillation by Freshwater Flux and Salinity Variability in the Tropical Pacific. *Adv. Atmos. Sci.* (in press)
77. Zhang, S., M. Winton, A. Rosati, T. Delworth and B. **Huang**, 2012c: Impact of enthalpy-based ensemble filtering sea-ice data assimilation on decadal predictions: simulation with a simple pycnocline prediction model. *J. Climate*. (submitted)
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79. **Zhu**, J., B. **Huang**, Z.-Z. Hu, J. L. **Kinter III**, L. **Marx**, 2012: Predicting US Summer Precipitation using NCEP Climate Forecast System Version 2 initialized by Multiple Ocean Analyses. *Climate Dynamics*. *Climate Dyn.* (submitted)
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82. **Zhu, J.**, G.-Q. Zhou, R.-H. Zhang, and Z. Sun, 2012: Improving ENSO Prediction in a Hybrid Coupled Model with an Embedded Entrainment Temperature Parameterization. *Int. J. Climatol.*. DOI: 10.1002/joc.3426 (published online).