

Curriculum Vitae Guiling Wang

Professor of Environmental Engineering
SoE Centennial Professor
Department of Civil and Environmental Engineering &
Institute of the Environment
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Education

Massachusetts Institute of Technology, Ph.D. in Hydroclimatology, 2000
Tsinghua University, M.S. in Hydrodynamics and Hydrology, 1995
Tsinghua University, B.E., Hydraulic Engineering, 1992

Professional Experience

2013 – Present: Professor, Department of Civil & Environmental Engineering,
and Center for Environmental Sciences and Engineering, UConn
2016 – 2022: School of Engineering Centennial Term Professor, UConn
2015 – 2016: Director of Graduate Education, School of Engineering, UConn
2009 – 2011: Al Geib Term Professor in Environmental Engineering Research and
Education, University of Connecticut
2009 – 2012: Director, Environmental Engineering Program, University of Connecticut
2008 – 2013: Associate Professor, Department of Civil & Environmental Engineering
and Center for Environmental Sciences and Engineering, UConn
2003 – 2008: Assistant Professor, Department of Civil and Environmental Engineering,
and Center for Environmental Sciences and Engineering, UConn
2001 – 2002: Assistant Research Scientist, Goddard Earth Science and
Technology Center, UMBC & Data Assimilation Office, NASA/GSFC
2000 – 2001: Research Associate, Program in Atmospheric & Oceanic Sciences
and Department of Ecology & Evolutionary Biology, Princeton University
1995 – 2000: Graduate Research Assistant, Department of Civil and
Environmental Engineering, Massachusetts Institute of Technology

Research Interests

Hydroclimatology and Hydrometeorology, Precipitation Extremes, Drought,
Ecosystem-Climate Interactions, Terrestrial Hydrological-Biogeochemical Cycles,
Land-Atmosphere Coupling, Climate Change and Impact Assessment

Media Coverage

August 2017 (The Guardian, Deutsche Welle, Skeptical Science), for a paper published
in *Scientific Report*

March 2017 (The Guardian, Science Daily, Eurekalert, Phys Org, Skeptical Science,
Environmental News Network, UConn Today), for a paper published in *Nature Climate
Change*

Honors and Awards

Fellow of the American Meteorological Society (elected in 2021)
School of Engineering Centennial Professor (2016-2022)
Elected to the Connecticut Academy of Sciences and Engineering (CASE) in 2014
Connecticut Technology Council Women of Innovation 2010 finalist
Al Geib Associate Professor (2009-2013)

Professional Services

Associate Editor, *Geophysical Research Letters* (2020 – Present)
Associate Editor, *Journal of Hydrometeorology* (2019 – Present)
Co-author, the Fifth National Climate Assessment (2021-2023)
American Geophysical Union *Hydrological Science Award Committee* (2021-2023)
American Meteorological Society *Committee on Hydrology* (2019 – Present)
The AMS *Francis W. Reichelderfer Award Selection Committee* (2020)
Editorial Board Member, *Scientific Reports* (2018 – 2021)
Associate Editor, *Journal of Geophysical Research –Biogeosciences* (2004 – 2010)
Peer reviewer for over a dozen scientific journals
Proposals reviewer for NSF, NOAA, NASA, NERC (UK), IBNSF
Review Panels for NSF, NOAA, NASA, DOE

Services at UConn

Member, Vice Provost for Faculty/Staff Affairs Search Committee (2020)
Member, OVPR Internal Competitions Advisory Board (2020-2023)
Member, Solve Climate by 2030 (2019-2020)
Member, UConn Reads Selection Committee (2019-2020)
Chair, CEE PTR Committee (2015-17, 2019-21)
Member, NRE Faculty Search Committee (2019-20)
Chair, Department Head Advisory Board (2018-19, 2020-2021)
Chair, CEE Department Head Search Committee (2018)
Member, Department Head Advisory Board (2015-16; 2017-18)
Director for Graduate Education, School of Engineering (2015-16)
Member, CEE PTR Committee (2008-2012, 2017-2018)
Member, CEE Department Head Search Committee (2014)
School of Engineering Dean's PTR Council (2013-15)
School of Engineering Dean Search Committee (2013)
Director, Environmental Engineering Program (2009-2012)
Provost's Environment Committee (2009-2012)
Faculty Search Committees (2006, 2007, 3 in 2012, 2013-2014, 2016-2017)
Atmospheric Science Group Executive Committee (2007-present)
SoE Course and Curriculum Committee (2009-2012)
SoE Graduate Committee (2009-2010, 2013-14)
Center for Geosciences Faculty Advisory Committee (2004-2007)
Chair, ENVE Graduate Admission Committee (2005-2012, 2013-15)
Departmental Course and Curriculum Committee (2009-2012)
Departmental Graduate Committee (2008-2009, 2014-2015)
Undergraduate Advising Committee (2009-2012)
Departmental Workload and Merit Committee (2007)
Faculty Advisor, Chinese Undergraduate Students Association (2004 – Present)

Professional Membership

American Geophysical Union
American Meteorological Society
American Association for the Advancement of Science

Advising

Current Graduate Advisees:

Koushan Mohammadi (PhD student)
Yelin Jiang (PhD student)
Badhan Makduma (PhD student)
Yan Chen (PhD student in Geography; co-advised with Dr. Anji Seth)
Lori Fomenko (PhD student, part time)

Postdoctoral Scholars Supervised and Current Placement:

Xiaoming Sun (2017 – 2019, Postdoctoral Research Fellow, Los Alamos National Lab)
Congsheng Fu (2013 – 2015, Professor, National Institute of Geography and Limnology)
Roop Saini (2012-2014, independent consultant)
Miao Yu (2011-2014, Professor, Nanjing Univ. of Information Science and Technology)
Zhenming Ji (2013-2014, Associate Professor, Sun Yat-Sen University)

Ph.D. Students Graduated and Current Placement:

Meijian Yang (Ph.D., 2021: postdoc, Cornell University)
Amir Erfanian (Ph.D., 2018; Data Scientist, McKinsey & Company)
Kazi Ahmed (Ph.D. 2016; Research Scientist, AIR Worldwide)
Dana Parr (Ph.D. 2016; Instructor, Taft School)
Shanshan Sun (Ph.D. 2012; Assistant Professor, Yunnan University)
Rui Mei (Ph.D. 2012; Research Analyst, Intercontinental Exchange)
Clement Alo (Ph.D. 2008; Associate Professor, Montclair State University)
Dagang Wang (Ph.D. 2007; Professor, Sun Yet-Sen University)
Yeonjoo Kim (Ph.D. 2006; Associate Professor, Yonsei University)

M.S. students graduated:

Tengyu Ding (2020, non-thesis), Brandon Holland (2019, non-thesis)
Lori Fomenko (2019), Aaron Rosenberg (2014), Zhitong Fei (2014, non-thesis),
Joseph Albani (2014), Jeehee Kim (2013), Di Wu (2013), Farzan Ahmed (2011),
Rui Mei (2008), David Hoover (2008), Xiaoming Sun (2007), Jeff Zhe Zheng (2006)

Visiting Students/scholars Supervised:

Weiguang Liu (2018-2019), Alexander Zhang (summer, 2017-2018),
Ying Shi (2016-2017), Dagang Wang (summer 2016, summer 2017),
Di Liu (2011-12), Huanghe Gu (2010-11), Bing Gao (2009-10),

Publications I: Peer Reviewed Book Chapters and Technical Reports

1. Seth A (co-lead), **Wang GL** (co-lead), Kirchoff C et al., 2019: *The Connecticut Physical Climate Science Assessment Report*. CIRCA Technical Report
2. **Wang GL**, Jenkins GS, 2003: “Desert and Desertification”, *Encyclopedia of Atmospheric Sciences*, Holton J, Pyle J, Curry J (eds.), 633-640. Academic Press, London, UK

Publications II: Journal Articles (* papers led by students/postdocs/visiting scholars)

1. Long K, Wang D, **Wang G**, Zhu J, Wang S, 2021: High temperature enhances spatio-temporal rainfall concentration. *Journal of Hydrometeorology*, <https://doi.org/10.1175/JHM-D-21-0034.1>
2. Lin Y, Wang D, **Wang G**, et al., 2021: A hybrid deep learning algorithm and its application to streamflow prediction. *Journal of Hydrology*, 601, 126636
3. Xue YK et al., 2021: Impact of Initialized Land Surface Temperature and Snowpack on Subseasonal to Seasonal Prediction Project (LS4P), Phase I: Organization and Experimental design, *Geosci. Model Dev.*, 14, 4465–4494, <https://doi.org/10.5194/gmd-14-4465-2021>
4. Lala J, Yang M, **Wang G**, & Block P (2021). Utilizing rainy season onset predictions to enhance maize yields in Ethiopia. *Environmental Research Letters*. 16, 054035, doi: 10.1088/1748-9326/abf9c9
5. *Jiang Y, **Wang G**, Liu W, Erfanian A, Deng Q, Fu R, 2021: Modeled response of South American climate to three decades of deforestation. *Journal of Climate*, 34, 6, 2189–2203, <https://doi.org/10.1175/JCLI-D-20-0380.1>
6. Mehboob MS., Kim Y, Lee J, Um M-J, Erfanian A, **Wang G**, 2020: Projection of vegetation impacts on future droughts over West Africa using a coupled RegCM-CLM-CN-DV. *Climatic Change*, doi: 10.1007/s10584-020-02879-z
7. Shi Y, **Wang G**, 2020: Changes in building climate zones over China based on high-resolution regional climate projections. *Environmental Research Letters*, <https://iopscience.iop.org/article/10.1088/1748-9326/abbde8>
8. **Wang G**, Kirchhoff C, Seth A, Abatzoglou J, Livneh B, Pierce DW, Fomenko L, Ding T, 2020: Projected changes of precipitation characteristics depend on downscaling method and the training data: LOCA vs. MACA using the U.S. Northeast as an example. *Journal of Hydrometeorology*, 21, 2739–2758, doi:10.1175/JHM-D-19-0275.1
9. *Mullin CA, Kirchhoff CJ, **Wang G**, Vlahos P, 2020: Future projections of water temperature and thermal stratification in Connecticut reservoirs and possible implications for cyanobacteria. *Water Resources Research*, <https://doi.org/10.1029/2020WR027185>
10. *Yang MJ, **Wang G**, et al., 2020: Impact of planting time soil moisture on cereal crop yield in the Upper Blue Nile Basin: A novel insight towards agricultural water management. *Agricultural Water Management*, doi:10.1016/j.agwat.2020.106430
11. *Liu W, **Wang G**, Yu M, et al., 2020: Projecting the future vegetation-climate system over East Asia and its RCP-dependence. *Climate Dynamics*, 55, 2725-2742, DOI 10.1007/s00382-020-05411-2
12. *Liu W, **Wang G**, Yu M, et al., 2020: Multi-model future projections of the regional vegetation-climate system over Asia: Comparison between two ensemble approaches, *JGR-Atmospheres*, 125, e2019JD031967. doi:10.1029/2019JD031967
13. *Yang M, **Wang G**, Ahmed KF, et al., 2020: The role of climate in the trend and variability of Ethiopia's cereal crop yields. *Science of the Total Environment*, 723, 137893
14. Kirchhoff, C. J., and Co-authors, 2019: Climate assessment for local action. *Bulletin of the American Meteorological Society*, <https://doi.org/10.1175/BAMS-D-18-0138.1>

15. Zhou WC et al., 2019: Towards water-saving irrigation methodology: Field test of soil moisture profiling using flat thin mm-sized soil moisture sensors (MSMSs). *Sensors & Actuators: B. Chemical*, 298, 126857, doi: 10.1016/j.snb.2019.126857
16. Liao WL, Wang DG, **Wang G**, Xia YL, Liu XP, 2019: Quality control and evaluation of the observed daily data in North American soil moisture database. *Journal of Meteorological Research*, doi: 10.1007/s13351-019-8121-2.
17. Zhang Z, Wang DG, **Wang G**, Qiu J, Liao W, 2019: Use of SMAP soil moisture and fitting methods in improving GPM estimation in near real time. *Remote Sensing*, 11(3), 368; doi:10.3390/rs11030368
18. *Erfanian A, **Wang G**, 2018: Explicitly accounting for the role of remote oceans in regional climate modeling of South America. *Journal of Advances in Modeling Earth Systems*, doi:10.1029/2018MS001444
19. *Shi Y, Yu M, Erfanian A, **Wang G**, 2018: Modeling the dynamic vegetation-climate system over China using a synchronously coupled regional model. *Journal of Climate*, doi: 10.1175/jclim-d-17-0191.1
20. *Shi Y, **Wang G**, Gao XJ, Xu Y, 2018: Effects of climate and potential policy changes on heating degree days in current heating areas of China. *Scientific Reports*, 8, 10211, DOI:10.1038/s41598-018-28411-z
21. Fu C, Lee X, Griffis TJ, **Wang G**, Wei Z, 2018: Influences of root hydraulic redistribution on N₂O emissions at AmeriFlux sites. *Geophysical Research Letters*, 45, doi:10.1029/2018GL077789
22. *Fu C, **Wang G**, Bible K, Goulden ML, Saleska SR, Scott RL, Cardon ZG, 2018: Hydraulic redistribution affects modeled carbon cycling via soil microbial activity and suppressed fire. *Global Change Biology*, 24, 3472-3485, doi: 10.1111/gcb.14164
23. *Shi Y, **Wang G**, Gao XJ, 2018: Role of resolution in regional climate change projections over China. *Climate Dynamics*, 51, 2375-2396, doi:10.1007/s00382-017-4018-x
24. *Wang DG, **Wang G**, Parr D, Liao WL, Xia YL, Fu CS, 2017: Incorporating remote sensing-based ET estimates into the Community Land Model version 4.5. *Hydrology and Earth System Sciences*, 21, 3557-3577, doi:10.5194/hess-21-1-2017
25. Koster RD et al., 2017: Hydroclimatic variability and predictability: A Survey of recent research. *Hydrology and Earth System Sciences*, 21, 3777-3798, doi:10.5194/hess-21-3777-2017
26. *Erfanian A, **Wang G**, Fomenko L, 2017: Unprecedented drought over tropical South America in 2016: significantly under-predicted by tropical SST. *Scientific Reports*, doi:10.1038/s41598-017-05373-2
27. *Kim JH, Kim YJ, **Wang G**, 2017: Impacts of boundary condition changes on regional climate projections over West Africa, *Journal of Geophysical Research - Atmospheres*, 122, doi:10.1002/2016JD026167
28. Xu ZH et al., Flat thin mm-sized soil moisture sensor (MSMS) fabricated by gold compact discs etching for real-time in situ profiling. *Sensors and Actuators B: Chemical*, doi: 10.1016/j.snb.2017.05.154
29. *Erfanian A, **Wang G**, Fomenko L, Yu M, 2017: Ensemble-based Reconstructed Forcing (ERF) for regional climate modeling: Attaining the performance at a fraction of cost. *Geophysical Research Letters*, 44, doi:10.1002/2017GL073053
30. **Wang G**, Wang D, Trenberth KE, Yu M, Erfanian A, Bosilovich M, Parr D, 2017: The peak structure and future changes of the relationships between extreme precipitation and temperature. *Nature Climate Change*, 7, 268-274, doi:10.1038/nclimate3239
31. **Wang G**, Ahmed KF, You LZ, Yu M, Pal JS, Ji ZM, 2017: Projecting regional climate and cropland changes using a linked biogeophysical-socioeconomic modeling framework. Part 1: Model description and an equilibrium application. *Journal of Advances in Modeling Earth Systems*, doi:10.1002/2016MS000712

32. *Ahmed KF, **Wang G**, You LZ, Anyah R, Zhang CR, Burnicki A, 2017: Projecting regional climate and cropland changes using a linked biogeophysical-socioeconomic modeling framework. Part 2: Transient dynamics. *Journal of Advances in Modeling Earth Systems*, doi:10.1002/2016MS000721
33. *Erfanian A, **Wang G**, Yu M, Anyah R, 2016: Multi-model ensemble simulations of present and future climates over West Africa: impacts of vegetation Dynamics. *Journal of Advances in Modeling Earth Systems*, doi:10.1002/2016MS000660
34. Liao WL, Wang DG, Liu XP, **Wang GL**, Zhang JB, 2016: Estimated influence of urbanization on surface warming in Eastern China using time-varying land use data. *International Journal of Climatology*, DOI: 10.1002/joc.4908
35. *Saini R, **Wang G**, Pal JS, 2016: Role of soil moisture feedback in the development of extreme summer drought and flood in the United States. *Journal of Hydrometeorology*, 17, 8, 2191-2207, DOI: 10.1175/JHM-D-15-0168.1
36. *Parr DT, **Wang G**, Fu CS, 2016: Understanding Evapotranspiration Trends and their Driving Mechanisms over the NLDAS Domain Based on Numerical Modeling Using CLM4.5, *JGR-Atmospheres*, 121, doi: 10.1002/2015JD024398.
37. Boone, A., Y. Xue, F. De Sales, R. Comer, S. Hagos, S. Mahanama, K. Schiro, G. Song, **G. Wang** and C. R. Mechoso, 2016: The regional impact of Land-Use Land-cover Change (LULCC) over West Africa from an ensemble of global climate models under the auspices of the WAMME2 project. *Clim. Dyns.*, DOI: 10.1007/s00382-016-3252-y
38. Xue, Y, F. De Sales, W. K-M Lau, A. Boone, K.-M. Kim, C. R. Mechoso, **G. Wang**, and 23 others, 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”. *Climate Dynamics*, DOI: 10.1007/s00382-016-3224-2.
39. *Fu C, **Wang G**, Goulden ML, Scott RL, Bible K, Cardon ZG, 2016: Modeling the hydrological impact of hydraulic redistribution using CLM4.5 at eight AmeriFlux sites. *HESS*, 20, 2001-2018, doi:10.5194/hess-20-2001-2016
40. *Yu M, **Wang G**, Chen HS, 2016: Quantifying the impacts of land surface schemes and dynamic vegetation on the model dependency of projected changes in surface energy and water budgets. *Journal of Advances in Modeling Earth Systems*, 8, 370-386, doi: 10.1002/2015MS000492
41. *Ahmed KF, **Wang G**, You L, and Yu M, 2016: Potential impact of climate and socioeconomic changes on future agricultural land use in West Africa, *Earth System Dynamics*, 7, 151-165, doi:10.5194/esd-7-151-2016.
42. **Wang G**, Yu M., Xue YK, 2016: Modeling the potential contribution of land cover changes to the Sahel drought using a regional climate model: Sensitivity to lateral boundary conditions and experimental approach. *Climate Dynamics*, 47, 3457-3477, DOI: 10.1007/s00382-015-2812-x
43. *Yu M, **Wang G**, Pal JS, 2016: Impact of vegetation feedback on future climate change over West Africa. *Climate Dynamics*, 46, 3669-3688, DOI: 10.1007/s00382-015-2795-7
44. *Ji ZM, **Wang G**, Pal JS, Yu M, 2016: Potential climate effect of mineral aerosols' over West Africa, Part I: model validation and contemporary climate evaluation. *Climate Dynamics*, 46, 1223-1239, DOI 10.1007/s00382-015-2641-y
45. *Ji ZM, **Wang G**, Yu M, Pal JS, 2015: Potential climate effect of mineral aerosols' over West Africa, Part II: Impact of aerosols and land use on future climate. *Climate Dynamics*, DOI: 10.1007/s00382-015-2792-x
46. **Wang G**, Miao Y, Pal JS, Rui M, Bonan GB, Levis S, Thornton PE, 2016: On the development of a coupled regional climate-vegetation model RCM-CLM-CN-DV and its validation in Tropical Africa. *Climate Dynamics*, 46, 515-539, DOI 10.1007/s00382-015-2596-z

47. *Parr DT, **Wang G**, Bjerklie D, 2015: Integrating Remote Sensing Data on Evapotranspiration and Leaf Area Index with Hydrological Modeling: Impacts on Model Performance and Future Predictions. *Journal of Hydrometeorology*, 16, 2086-2100, DOI: 10.1175/JHM-D-15-0009.1
48. *Ahmed KF, **Wang G**, Miao Yu, You LZ, Koo JW, 2015: Potential impact of climate changes on cereal crop yields in West Africa. *Climatic Change*, 133, 321-334, DOI 10.1007/s10584-015-1462-7
49. Sylla B, Pal JS, **Wang G**, Lawrence P, 2015: Impact of land surface characterization on regional climate modeling over West Africa. *Climate Dynamics*, 54, DOI 10.1007/s00382-015-2603-4
50. *Saini R, **Wang G**, Yu M, Kim JH, 2015: Comparison of RCMs and GCMs projections of summer precipitation in West Africa. *JGR-Atmospheres*, 120, 3679-3699, doi:10.1002/2014JD022599.
51. Wang DG, Jiang P, **Wang G**, Wang DS, 2015: Quantitative assessment of correlation between urban extent and extreme precipitation over the Pearl River Delta, China. *Atmospheric Sciences Letters*, 120, DOI: 10.1002/asl2.559
52. Li WD, Zhang CR, Dey DK, **Wang G**, You LZ, 2015: Bayesian Markov Chain Random Field Cosimulation for Improving Land Cover Classification Accuracy. *Mathematical Geosciences*, 47, 123-148, DOI 10.1007/s11004-014-9553-y
53. *Parr DT, **Wang G**, Ahmed KF, 2015: Hydrological changes in the U.S. Northeast using the Connecticut River Basin as a case study: Part 2. Projections of the future. *Global and Planetary Change*, 133, 167-175
54. *Parr DT, **Wang G**, 2014: Hydrological changes in the U.S. Northeast using the Connecticut River Basin as a case study: Part 1. Modeling and analysis of the past. *Global and Planetary Change*, 122, 208-222
55. Gu H, Yu ZB, Wang JG, **Wang G**, Yang T, Ju Q, Yang CG, Xu F, Fan CH, 2014: Assessing CMIP5 general circulation model simulations of precipitation and temperature over China. *International Journal of Climatology*, doi: 10.1002/joc.4152
56. Gu H, Yu ZB, **Wang G**, Wang JG, Ju Q, Yang CG, 2014: Impact of climate change on hydrological extremes in the Yangtze River Basin, China. *Stochastic Environmental Research and Risk Assessment*, 29, 693-707, doi: 10.1007/s00477-014-0957-5
57. *Yu M, **Wang G**, Parr DT, Ahmed KF, 2014: Future changes of the terrestrial ecosystem based on a dynamic vegetation model driven with RCP8.5 climate projections from 19 GCMs, *Climatic Change*, 127, 257-271, DOI 10.1007/s10584-014-1249-2
58. *Wu D, Anagnostou EN, **Wang G**, Moges S, 2014: Improving the surface-ground water interactions in the Community Land Model: Case study in the Blue Nile Basin. *Water Resources Research*, 50, 8015-8033, DOI: 10.1002/2013WR014501
59. Siam M, **Wang G**, Demory M-E, Eltahir EAB, 2014: Role of the Indian Ocean sea surface temperature in shaping the natural variability in the flow of the Nile River. *Climate Dynamics*, DOI 10.1007/s00382-014-2132-6
60. *Liu D, **Wang G**, Yu ZB, Mei R, 2014: Impact of soil moisture anomalies on climate mean and extremes in Asia. *JGR-Atmospheres*, 119, 529-545, doi: 10.1002/2013JD020890
61. *Liu D, **Wang G**, Mei R, Yu ZB, Gu HH, 2014: Diagnosing soil moisture-atmosphere feedback at the seasonal and sub-seasonal time scales in Asia. *Journal of Hydrometeorology*, 15, 1, 320-339, DOI:10.1175/JHM-D-13-0104.1
62. *Sun SS, **Wang G**, 2014: Climate variability attributable to terrestrial and oceanic forcing in NCAR CAM3-CLM3 models. *Climate Dynamics*, 42, 2067-2078, DOI: 10.1007/s00382-013-1913-7
63. *Yu M, **Wang G**, 2014: Impact of bias correction of lateral boundary conditions on regional climate projections in West Africa. *Climate Dynamics*, 42, 2521-2538, DOI: 10.1007/s00382-013-1853-2

64. Zhang C, Wang D, **Wang G**, Liu XP, 2013: Regional differences in hydrological responses to canopy interception schemes in a land surface model. *Hydrological Processes*, DOI: 10.1002/hyp.9762
65. *Mei R, **Wang G**, Gu HH, 2013: Summer land-atmosphere coupling strength over the U.S.: Results from a regional climate model RegCM4.0-CLM3.5. *Journal of Hydrometeorology*, 14, 946-962, DOI: 10.1175/JHM-D-12-043.1
66. *Ahmed KF, **Wang G**, Silander J, Wilson MA, Allen JM, Horton R, Anyah R, 2013: Statistical Downscaling and Bias Correction of Climate Model Outputs for Climate Change Impact Assessment in the U.S. Northeast. *Global and Planetary Changes*, 100, 320-332
67. *Kim YJ, **Wang G**, 2012: Soil moisture-vegetation-precipitation feedback over North America: Its sensitivity to soil moisture climatology. *Journal of Geophysical Research – Atmosphere*, 117, D18115, doi:10.1029/2012JD017584
68. *Sun SS, **Wang G**, 2012: The complexity of using a feedback parameter to quantify the soil moisture-precipitation relationship, *JGR-Atmospheres*, 117, D11113, doi:10.1029/2011JD017173.
69. *Mei R, **Wang G**, 2012: Summer land-atmosphere coupling strength in the United States: Comparison among observations, reanalysis data and numerical models. *Journal of Hydrometeorology*, 13, 1010-1022, DOI: 10.1175/JHM-D-11-075.1
70. *Gu HH, **Wang G**, Yu ZB, and Mei R, 2012: Assessing Future Climate Changes and Extreme Indicators in East and South Asia using the RegCM4 regional climate model. *Climatic Change*, 114, 301-317, DOI 10.1007/s10584-012-0411-y
71. **Wang G**, Alo CC, 2012: Changes in precipitation seasonality in West Africa predicted by RegCM3 and the impact of dynamic vegetation feedback. *International Journal of Geophysics*, Special Issue on “Advances in Climate Processes, Feedbacks, Variability, and Change for the West Africa Climate System”, doi:10.1155/2012/597205
72. **Wang G**, Sun SS, Mei R, 2011: Vegetation dynamics contributes to the multi-decadal variability of precipitation in the Amazon region, *Geophys. Res. Lett.*, 38, L19703, doi:10.1029/2011GL049017.
73. *Mei R, **Wang G**, 2011: Observational evidence for the impact of large scale oceanic forcing and local soil moisture conditions on warm-season precipitation in the United States. *Journal of Hydrometeorology*, 12, 1086-1099, DOI: 10.1175/2011JHM1312.1
74. *Sun SS, **Wang G**, 2011: Diagnosing the equilibrium state of a coupled global biosphere-atmosphere model. *JGR– Atmospheres*, 116, D09108, doi:10.1029/2010JD015224
75. **Wang G**, Alo CA, Mei R, Sun SS, 2011: Droughts, hydraulic redistribution, and their impact on plant composition in the Amazon forests. *Plant Ecology*, 212, 663-673, DOI: 10.1007/s11258-010-9860-4
76. **Wang G**, 2011: Assessing the potential hydrological impacts of hydraulic redistribution in Amazonia using a numerical modeling approach. *Water Resources Research*, 47, W02528, doi:10.1029/2010WR009601.
77. Thibeault J, Seth A, and **Wang G**, 2011: Mechanisms of summertime precipitation variability in the Bolivian Altiplano: Present and future. *International Journal of Climatology*, 31, DOI: 10.1002/joc.2424
78. *Alo CA, **Wang G**, 2010: Role of vegetation dynamics in regional climate predictions over western Africa. *Climate Dynamics*, 35, 907-922, DOI: 10.1007/s00383-010-0744-z
79. *Mei R, **Wang G**, 2010: Rain follows the logging in Amazon? Interpretation of results from the CAM3-CLM3 model. *Climate Dynamics*, 34, 983-996, DOI:10.1007/s00382-009-0592-x
80. Heald CL, Wilkinson MJ, Monsoon RK, Alo CA, **Wang G**, Guenther A, 2009: Response of isoprene emission to ambient CO2 changes and implications for global budgets. *Global Change Biology*, 15, 1127-1140

81. *Wang DG, **Wang G**, Anagnostou EN, 2009: Impact of sub-grid variability of precipitation and canopy water storage on hydrological processes in a coupled land-atmosphere model. *Climate Dynamics*, 32, 5, 649-662, DOI 10.1007/s00382-008-0435-1
82. *Wang DG, Anagnostou EN, and **Wang G**, 2008: Effects of sub-grid variability of precipitation and canopy water storage on climate model simulations of water cycle in Europe. *Advances in Geosciences*, 17, 49–53.
83. *Sun XM, **Wang G**, 2008: Comparing the ability of a genetic algorithm based clustering analysis and a physically based dynamic vegetation model to predict vegetation distribution *Journal of Geophysical Research -- Biogeosciences*, 113, G03007, doi:10.1029/2007JG000655
84. *Alo C, **Wang G**, 2008: Hydrological impact of the potential future vegetation response to climate changes projected by 8 GCMs, *Journal of Geophysical Research – Biogeosciences*, 113, G03011, doi:10.1029/2007JG000598.
85. *Alo C, **Wang G**, 2008: Potential future changes of the terrestrial ecosystem based on climate projections by eight general circulation models, *Journal of Geophysical Research – Biogeosciences*, 113, G01004, doi:10.1029/2007JG000528.
86. *Zheng Z, **Wang G**, 2007: Modeling the dynamic root water uptake and its hydrological impact at the Reserva Jaru site in Amazonia, *J. Geophys. Res. -- Biogeosciences*, 112, G04012, doi:10.1029/2007JG000413.
87. * Wang DG, **Wang G**, Anagnostou EN, 2007 Validation of canopy hydrological schemes in land surface models. *Journal of Hydrology*, 347, 308-318
88. *Kim YJ, **Wang G**, 2007: Impact of initial soil moisture anomalies on subsequent precipitation over North America. *Journal of Hydrometeorology*, 8, 3, 513-533
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