# Justin Sheffield

List of Publications by Year
in descending order

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| | | 8208 | 6024 |
|---|---|---|---|
| 185 | 29,489 | 78 | 165 |
| papers | citations | h-index | g-index |

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|---|---|---|---|
| 218 | 218 | 218 | 26367 |
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Global warming and changes in drought. Nature Climate Change, 2014, 4, 17-22. | 8.1 | 2,231 |
| 2 | Recent decline in the global land evapotranspiration trend due to limited moisture supply. Nature, 2010, 467, 951-954. | 13.7 | 1,771 |
| 3 | Development of a 50-Year High-Resolution Global Dataset of Meteorological Forcings for Land Surface Modeling. Journal of Climate, 2006, 19, 3088-3111. | 1.2 | 1,581 |
| 4 | Little change in global drought over the past 60 years. Nature, 2012, 491, 435-438. | 13.7 | 1,532 |
| 5 | The multi-institution North American Land Data Assimilation System (NLDAS): Utilizing multiple GCIP products and partners in a continental distributed hydrological modeling system. Journal of Geophysical Research, 2004, 109, . | 3.3 | 985 |
| 6 | Projected changes in drought occurrence under future global warming from multi-model, multi-scenario, IPCC AR4 simulations. Climate Dynamics, 2008, 31, 79-105. | 1.7 | 925 |
| 7 | Past and future changes in climate and hydrological indicators in the US Northeast. Climate Dynamics, 2007, 28, 381-407. | 1.7 | 697 |
| 8 | Hyperresolution global land surface modeling: Meeting a grand challenge for monitoring Earth's terrestrial water. Water Resources Research, 2011, 47, . | 1.7 | 634 |
| 9 | Global assessment of trends in wetting and drying over land. Nature Geoscience, 2014, 7, 716-721. | 5.4 | 613 |
| 10 | Bias correction of monthly precipitation and temperature fields from Intergovernmental Panel on Climate Change AR4 models using equidistant quantile matching. Journal of Geophysical Research, 2010, 115, . | 3.3 | 581 |
| 11 | Drought in the Anthropocene. Nature Geoscience, 2016, 9, 89-91. | 5.4 | 537 |
| 12 | Global Trends and Variability in Soil Moisture and Drought Characteristics, 1950â€“2000, from Observation-Driven Simulations of the Terrestrial Hydrologic Cycle. Journal of Climate, 2008, 21, 432-458. | 1.2 | 536 |
| 13 | Continentalâ€scale water and energy flux analysis and validation for the North American Land Data Assimilation System project phase 2 (NLDASâ€2): 1. Intercomparison and application of model products. Journal of Geophysical Research, 2012, 117, . | 3.3 | 530 |
| 14 | Land information system: An interoperable framework for high resolution land surface modeling. Environmental Modelling and Software, 2006, 21, 1402-1415. | 1.9 | 517 |
| 15 | Anthropogenic warming exacerbates European soil moisture droughts. Nature Climate Change, 2018, 8, 421-426. | 8.1 | 439 |
| 16 | Soil Moisture Drought in China, 1950â€“2006. Journal of Climate, 2011, 24, 3257-3271. | 1.2 | 392 |
| 17 | A Drought Monitoring and Forecasting System for Sub-Sahara African Water Resources and Food Security. Bulletin of the American Meteorological Society, 2014, 95, 861-882. | 1.7 | 371 |
| 18 | Broad threat to humanity from cumulative climate hazards intensified by greenhouse gas emissions. Nature Climate Change, 2018, 8, 1062-1071. | 8.1 | 365 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Realâ€time and retrospective forcing in the North American Land Data Assimilation System (NLDAS) project. Journal of Geophysical Research, 2003, 108, . | 3.3 | 357 |
| 20 | Photosynthetic seasonality of global tropical forests constrained by hydroclimate. Nature Geoscience, 2015, 8, 284-289. | 5.4 | 337 |
| 21 | Global and Continental Drought in the Second Half of the Twentieth Century: Severityâ€“Areaâ€“Duration Analysis and Temporal Variability of Large-Scale Events. Journal of Climate, 2009, 22, 1962-1981. | 1.2 | 331 |
| 22 | Evaluation of global observations-based evapotranspiration datasets and IPCC AR4 simulations. Geophysical Research Letters, 2011, 38, n/a-n/a. | 1.5 | 312 |
| 23 | Benchmark products for land evapotranspiration: LandFlux-EVAL multi-data set synthesis. Hydrology and Earth System Sciences, 2013, 17, 3707-3720. | 1.9 | 310 |
| 24 | Global intercomparison of 12 land surface heat flux estimates. Journal of Geophysical Research, 2011, 116, . | 3.3 | 309 |
| 25 | Characteristics of global and regional drought, 1950â€“2000: Analysis of soil moisture data from offâ€line simulation of the terrestrial hydrologic cycle. Journal of Geophysical Research, 2007, 112, . | 3.3 | 307 |
| 26 | Drought in a human-modified world: reframing drought definitions, understanding, and analysis approaches. Hydrology and Earth System Sciences, 2016, 20, 3631-3650. | 1.9 | 289 |
| 27 | A simulated soil moisture based drought analysis for the United States. Journal of Geophysical Research, 2004, 109, . | 3.3 | 281 |
| 28 | Multifaceted characteristics of dryland aridity changes in a warming world. Nature Reviews Earth & Environment, 2021, 2, 232-250. | 12.2 | 281 |
| 29 | CMIP5 Climate Model Analyses: Climate Extremes in the United States. Bulletin of the American Meteorological Society, 2014, 95, 571-583. | 1.7 | 270 |
| 30 | Satellite Remote Sensing for Water Resources Management: Potential for Supporting Sustainable Development in Dataâ€Poor Regions. Water Resources Research, 2018, 54, 9724-9758. | 1.7 | 247 |
| 31 | North American Climate in CMIP5 Experiments. Part I: Evaluation of Historical Simulations of Continental and Regional Climatology. Journal of Climate, 2013, 26, 9209-9245. | 1.2 | 242 |
| 32 | Anthropogenic shift towards higher risk of flash drought over China. Nature Communications, 2019, 10, 4661. | 5.8 | 236 |
| 33 | North American Climate in CMIP5 Experiments: Part III: Assessment of Twenty-First-Century Projections*. Journal of Climate, 2014, 27, 2230-2270. | 1.2 | 231 |
| 34 | The Observed State of the Water Cycle in the Early Twenty-First Century. Journal of Climate, 2015, 28, 8289-8318. | 1.2 | 230 |
| 35 | Continentalâ€scale water and energy flux analysis and validation for North American Land Data Assimilation System project phase 2 (NLDASâ€2): 2. Validation of modelâ€simulated streamflow. Journal of Geophysical Research, 2012, 117, . | 3.3 | 229 |
| 36 | Divergent surface and total soil moisture projections under global warming. Geophysical Research Letters, 2017, 44, 236-244. | 1.5 | 206 |

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| 37 | Surface radiation budgets in support of the GEWEX Continentalâ€Scale International Project (GCIP) and the GEWEX Americas Prediction Project (GAPP), including the North American Land Data Assimilation System (NLDAS) project. Journal of Geophysical Research, 2003, 108, . | 3.3 | 196 |
| 38 | The Global Gridded Crop Model Intercomparison: data and modeling protocols for Phase 1 (v1.0). Geoscientific Model Development, 2015, 8, 261-277. | 1.3 | 190 |
| 39 | Multisource Estimation of Long-Term Terrestrial Water Budget for Major Global River Basins. Journal of Climate, 2012, 25, 3191-3206. | 1.2 | 188 |
| 40 | Closing the terrestrial water budget from satellite remote sensing. Geophysical Research Letters, 2009, 36, . | 1.5 | 186 |
| 41 | High-performance Earth system modeling with NASA/GSFCâ€™s Land Information System. Innovations in Systems and Software Engineering, 2007, 3, 157-165. | 1.6 | 184 |
| 42 | Climate Change and Drought: the Soil Moisture Perspective. Current Climate Change Reports, 2018, 4, 180-191. | 2.8 | 170 |
| 43 | Detection of Intensification in Global- and Continental-Scale Hydrological Cycles: Temporal Scale of Evaluation. Journal of Climate, 2003, 16, 535-547. | 1.2 | 163 |
| 44 | Evaluation of multi-model simulated soil moisture in NLDAS-2. Journal of Hydrology, 2014, 512, 107-125. | 2.3 | 163 |
| 45 | The Observed State of the Energy Budget in the Early Twenty-First Century. Journal of Climate, 2015, 28, 8319-8346. | 1.2 | 160 |
| 46 | Anthropogenic influence on multidecadal changes in reconstructed global evapotranspiration. Nature Climate Change, 2013, 3, 59-62. | 8.1 | 159 |
| 47 | Evaluation of the North American Land Data Assimilation System over the southern Great Plains during the warm season. Journal of Geophysical Research, 2003, 108, . | 3.3 | 157 |
| 48 | Evaluation of 18 satellite- and model-based soil moisture products using in situ measurements from 826 sensors. Hydrology and Earth System Sciences, 2021, 25, 17-40. | 1.9 | 156 |
| 49 | Reconciling the global terrestrial water budget using satellite remote sensing. Remote Sensing of Environment, 2011, 115, 1850-1865. | 4.6 | 152 |
| 50 | LS3MIP (v1.0) contribution to CMIP6: the Land Surface, Snow and Soil moisture Model Intercomparison Project â€“ aims, setup and expected outcome. Geoscientific Model Development, 2016, 9, 2809-2832. | 1.3 | 152 |
| 51 | Spatial downscaling of precipitation using adaptable random forests. Water Resources Research, 2016, 52, 8217-8237. | 1.7 | 152 |
| 52 | Snow process modeling in the North American Land Data Assimilation System (NLDAS): 2. Evaluation of model simulated snow water equivalent. Journal of Geophysical Research, 2003, 108, . | 3.3 | 150 |
| 53 | An efficient calibration method for continentalâ€scale land surface modeling. Water Resources Research, 2008, 44, . | 1.7 | 149 |
| 54 | Multiâ€model, multiâ€sensor estimates of global evapotranspiration: climatology, uncertainties and trends. Hydrological Processes, 2011, 25, 3993-4010. | 1.1 | 147 |

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| 55 | Climate change alters low flows in Europe under global warming of 1.5, 2, and 3â€Â°C. Hydrology and Earth System Sciences, 2018, 22, 1017-1032. | 1.9 | 146 |
| 56 | Toward Global Drought Early Warning Capability: Expanding International Cooperation for the Development of a Framework for Monitoring and Forecasting. Bulletin of the American Meteorological Society, 2013, 94, 776-785. | 1.7 | 142 |
| 57 | Streamflow and water balance intercomparisons of four land surface models in the North American Land Data Assimilation System project. Journal of Geophysical Research, 2004, 109, . | 3.3 | 141 |
| 58 | Validation of the North American Land Data Assimilation System (NLDAS) retrospective forcing over the southern Great Plains. Journal of Geophysical Research, 2003, 108, . | 3.3 | 136 |
| 59 | Evaluation of the Tropical Rainfall Measuring Mission Multi-Satellite Precipitation Analysis (TMPA) for assessment of large-scale meteorological drought. Remote Sensing of Environment, 2015, 159, 181-193. | 4.6 | 126 |
| 60 | Spatiotemporal dynamics of global drought. Geophysical Research Letters, 2017, 44, 2254-2263. | 1.5 | 125 |
| 61 | North American Climate in CMIP5 Experiments. Part II: Evaluation of Historical Simulations of Intraseasonal to Decadal Variability. Journal of Climate, 2013, 26, 9247-9290. | 1.2 | 124 |
| 62 | Terrestrial hydrological controls on land surface phenology of African savannas and woodlands. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1652-1669. | 1.3 | 117 |
| 63 | Evaluation of historical and future simulations of precipitation and temperature in central Africa from CMIP5 climate models. Journal of Geophysical Research D: Atmospheres, 2016, 121, 130-152. | 1.2 | 116 |
| 64 | Hydrological consistency using multi-sensor remote sensing data for water and energy cycle studies. Remote Sensing of Environment, 2008, 112, 430-444. | 4.6 | 108 |
| 65 | Global analysis of seasonal streamflow predictability using an ensemble prediction system and observations from 6192 small catchments worldwide. Water Resources Research, 2013, 49, 2729-2746. | 1.7 | 105 |
| 66 | Multi-model ensemble projections of European river floods and high flows at 1.5, 2, and 3 degrees global warming. Environmental Research Letters, 2018, 13, 014003. | 2.2 | 104 |
| 67 | Intensification of hydrological drought in California by human water management. Geophysical Research Letters, 2017, 44, 1777-1785. | 1.5 | 99 |
| 68 | Shifts in tree functional composition amplify the response of forest biomass to climate. Nature, 2018, 556, 99-102. | 13.7 | 99 |
| 69 | A Global Drought and Flood Catalogue from 1950 to 2016. Bulletin of the American Meteorological Society, 2020, 101, E508-E535. | 1.7 | 98 |
| 70 | Land surface model spinâ€up behavior in the North American Land Data Assimilation System (NLDAS). Journal of Geophysical Research, 2003, 108, . | 3.3 | 96 |
| 71 | Quantifying uncertainty in a remote sensing-based estimate of evapotranspiration over continental USA. International Journal of Remote Sensing, 2010, 31, 3821-3865. | 1.3 | 96 |
| 72 | Drought. , 0, , . | | 96 |

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| 73 | Snow process modeling in the North American Land Data Assimilation System (NLDAS): 1. Evaluation of modelâ€simulated snow cover extent. Journal of Geophysical Research, 2003, 108, . | 3.3 | 95 |
| 74 | Bias Correction of Global High-Resolution Precipitation Climatologies Using Streamflow Observations from 9372 Catchments. Journal of Climate, 2020, 33, 1299-1315. | 1.2 | 94 |
| 75 | On the sources of global land surface hydrologic predictability. Hydrology and Earth System Sciences, 2013, 17, 2781-2796. | 1.9 | 93 |
| 76 | Seasonal Soil Moisture Drought Prediction over Europe Using the North American Multi-Model Ensemble (NMME). Journal of Hydrometeorology, 2015, 16, 2329-2344. | 0.7 | 93 |
| 77 | A Climate Data Record (CDR) for the global terrestrial water budget: 1984â€“2010. Hydrology and Earth System Sciences, 2018, 22, 241-263. | 1.9 | 91 |
| 78 | Global Evaluation of the ISBA-TRIP Continental Hydrological System. Part I: Comparison to GRACE Terrestrial Water Storage Estimates and In Situ River Discharges. Journal of Hydrometeorology, 2010, 11, 583-600. | 0.7 | 89 |
| 79 | An intercomparison of soil moisture fields in the North American Land Data Assimilation System (NLDAS). Journal of Geophysical Research, 2004, 109, . | 3.3 | 88 |
| 80 | Seasonal Forecasting of Global Hydrologic Extremes: System Development and Evaluation over GEWEX Basins. Bulletin of the American Meteorological Society, 2015, 96, 1895-1912. | 1.7 | 85 |
| 81 | Impacts of recent drought and warm years on water resources and electricity supply worldwide. Environmental Research Letters, 2016, 11, 124021. | 2.2 | 85 |
| 82 | Lagged Compound Occurrence of Droughts and Pluvials Globally Over the Past Seven Decades. Geophysical Research Letters, 2020, 47, e2020GL087924. | 1.5 | 84 |
| 83 | Development of a High-Resolution Gridded Daily Meteorological Dataset over Sub-Saharan Africa: Spatial Analysis of Trends in Climate Extremes. Journal of Climate, 2014, 27, 5815-5835. | 1.2 | 73 |
| 84 | Deforestation-induced warming over tropical mountain regions regulated by elevation. Nature Geoscience, 2021, 14, 23-29. | 5.4 | 73 |
| 85 | Probabilistic Seasonal Forecasting of African Drought by Dynamical Models. Journal of Hydrometeorology, 2013, 14, 1706-1720. | 0.7 | 71 |
| 86 | A physically based approach for the estimation of root-zone soil moisture from surface measurements. Hydrology and Earth System Sciences, 2014, 18, 1199-1212. | 1.9 | 71 |
| 87 | Application of USDM statistics in NLDAS-2: Optimal blended NLDAS drought index over the continental United States. Journal of Geophysical Research D: Atmospheres, 2014, 119, 2947-2965. | 1.2 | 69 |
| 88 | Bias Correction of Historical and Future Simulations of Precipitation and Temperature for China from CMIP5 Models. Journal of Hydrometeorology, 2018, 19, 609-623. | 0.7 | 69 |
| 89 | The impacts of future climate and carbon dioxide changes on the average and variability of US maize yields under two emission scenarios. Environmental Research Letters, 2015, 10, 045003. | 2.2 | 68 |
| 90 | Test of the SHETRAN technology for modelling the impact of reforestation on badlands runoff and sediment yield at Draix, France. Journal of Hydrology, 2000, 235, 44-62. | 2.3 | 66 |

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|---|---|---|---|
| 91 | Water Balance in the Amazon Basin from a Land Surface Model Ensemble. Journal of Hydrometeorology, 2014, 15, 2586-2614. | 0.7 | 66 |
| 92 | Assessment of water budget for sixteen large drainage basins in Canada. Journal of Hydrology, 2014, 512, 1-15. | 2.3 | 66 |
| 93 | Reduced Moisture Transport Linked to Drought Propagation Across North America. Geophysical Research Letters, 2019, 46, 5243-5253. | 1.5 | 64 |
| 94 | Integrated approaches to understanding and reducing drought impact on food security across scales. Current Opinion in Environmental Sustainability, 2019, 40, 43-54. | 3.1 | 63 |
| 95 | Contrasting Influences of Human Activities on Hydrological Drought Regimes Over China Based on Highâ€Resolution Simulations. Water Resources Research, 2020, 56, e2019WR025843. | 1.7 | 62 |
| 96 | Combining hyper-resolution land surface modeling with SMAP brightness temperatures to obtain 30-m soil moisture estimates. Remote Sensing of Environment, 2020, 242, 111740. | 4.6 | 59 |
| 97 | Less reliable water availability in the 21st century climate projections. Earth's Future, 2014, 2, 152-160. | 2.4 | 59 |
| 98 | Long-Term Regional Estimates of Evapotranspiration for Mexico Based on Downscaled ISCCP Data. Journal of Hydrometeorology, 2010, 11, 253-275. | 0.7 | 58 |
| 99 | Global Multimodel Analysis of Drought in Runoff for the Second Half of the Twentieth Century. Journal of Hydrometeorology, 2013, 14, 1535-1552. | 0.7 | 58 |
| 100 | The Influence of Atlantic Tropical Cyclones on Drought over the Eastern United States (1980â€“2007). Journal of Climate, 2013, 26, 3067-3086. | 1.2 | 58 |
| 101 | A Prototype Global Drought Information System Based on Multiple Land Surface Models. Journal of Hydrometeorology, 2014, 15, 1661-1676. | 0.7 | 56 |
| 102 | Hydrological Forecasts and Projections for Improved Decision-Making in the Water Sector in Europe. Bulletin of the American Meteorological Society, 2019, 100, 2451-2472. | 1.7 | 52 |
| 103 | Correction of the High-Latitude Rain Day Anomaly in the NCEPâ€“NCAR Reanalysis for Land Surface Hydrological Modeling. Journal of Climate, 2004, 17, 3814-3828. | 1.2 | 51 |
| 104 | Development and Evaluation of a Pan-European Multimodel Seasonal Hydrological Forecasting System. Journal of Hydrometeorology, 2019, 20, 99-115. | 0.7 | 51 |
| 105 | Validation of Noah-Simulated Soil Temperature in the North American Land Data Assimilation System Phase 2. Journal of Applied Meteorology and Climatology, 2013, 52, 455-471. | 0.6 | 49 |
| 106 | Soil Moistureâ€“Evapotranspiration Coupling in CMIP5 Models: Relationship with Simulated Climate and Projections. Journal of Climate, 2018, 31, 4865-4878. | 1.2 | 47 |
| 107 | Changes in drought risk over the contiguous United States (1901â€“2012): The influence of the Pacific and Atlantic Oceans. Geophysical Research Letters, 2014, 41, 5897-5903. | 1.5 | 46 |
| 108 | Spatial validation of largeâ€scale land surface models against monthly land surface temperature patterns using innovative performance metrics. Journal of Geophysical Research D: Atmospheres, 2016, 121, 5430-5452. | 1.2 | 46 |

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| 109 | Nonstationarity of low flows and their timing inÂtheÂeasternÂUnitedÂStates. Hydrology and Earth System Sciences, 2016, 20, 633-649. | 1.9 | 44 |
| 110 | Depiction of drought over subâ€Saharan Africa using reanalyses precipitation data sets. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,555. | 1.2 | 44 |
| 111 | Detection Time for Plausible Changes in Annual Precipitation, Evapotranspiration, and Streamflow in Three Mississippi River Sub-Basins. Climatic Change, 2005, 72, 17-36. | 1.7 | 42 |
| 112 | Representation of Terrestrial Hydrology and Large-Scale Drought of the Continental United States from the North American Regional Reanalysis. Journal of Hydrometeorology, 2012, 13, 856-876. | 0.7 | 42 |
| 113 | A largeâ€area, spatially continuous assessment of land cover map error and its impact on downstream analyses. Global Change Biology, 2018, 24, 322-337. | 4.2 | 42 |
| 114 | Estimation of the Terrestrial Water Budget over Northern Eurasia through the Use of Multiple Data Sources. Journal of Climate, 2011, 24, 3272-3293. | 1.2 | 41 |
| 115 | Climate change and dissolved organic carbon export to the Gulf of Maine. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 2700-2716. | 1.3 | 41 |
| 116 | Long-term, non-anthropogenic groundwater storage changes simulated by three global-scale hydrological models. Scientific Reports, 2019, 9, 10746. | 1.6 | 40 |
| 117 | Early season prediction of within-field crop yield variability by assimilating CubeSat data into a crop model. Agricultural and Forest Meteorology, 2022, 313, 108736. | 1.9 | 40 |
| 118 | Changes in the low flow regime over the eastern United States (1962â€“2011): variability, trends, and attributions. Climatic Change, 2016, 135, 639-653. | 1.7 | 39 |
| 119 | Solar and wind energy enhances drought resilience and groundwater sustainability. Nature Communications, 2019, 10, 4893. | 5.8 | 39 |
| 120 | Determinants of the ratio of actual to potential evapotranspiration. Global Change Biology, 2019, 25, 1326-1343. | 4.2 | 39 |
| 121 | Projected Seasonal Changes in Large-Scale Global Precipitation and Temperature Extremes Based on the CMIP5 Ensemble. Journal of Climate, 2020, 33, 5651-5671. | 1.2 | 39 |
| 122 | Evapotranspiration simulations in ISIMIP2aâ€”Evaluation of spatio-temporal characteristics with a comprehensive ensemble of independent datasets. Environmental Research Letters, 2018, 13, 075001. | 2.2 | 38 |
| 123 | Evapotranspiration Partitioning in CMIP5 Models: Uncertainties and Future Projections. Journal of Climate, 2019, 32, 2653-2671. | 1.2 | 38 |
| 124 | Uncertainties, Correlations, and Optimal Blends of Drought Indices from the NLDAS Multiple Land Surface Model Ensemble. Journal of Hydrometeorology, 2014, 15, 1636-1650. | 0.7 | 37 |
| 125 | Continental Runoff into the Oceans (1950â€“2008). Journal of Hydrometeorology, 2015, 16, 1502-1520. | 0.7 | 37 |
| 126 | Connectivity between Eurasian snow cover extent and Canadian snow water equivalent and river discharge. Journal of Geophysical Research, 2005, 110, . | 3.3 | 36 |

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| 127 | A global near-real-time soil moisture index monitor for food security using integrated SMOS and SMAP. Remote Sensing of Environment, 2020, 246, 111864. | 4.6 | 35 |
| 128 | A multiscale analysis of drought and pluvial mechanisms for the Southeastern United States. Journal of Geophysical Research D: Atmospheres, 2014, 119, 7348-7367. | 1.2 | 34 |
| 129 | Uncertainties in Future Projections of Summer Droughts and Heat Waves over the Contiguous United States. Journal of Climate, 2017, 30, 6225-6246. | 1.2 | 34 |
| 130 | Farmer forecasts: Impacts of seasonal rainfall expectations on agricultural decision-making in Sub-Saharan Africa. Climate Risk Management, 2020, 30, 100247. | 1.6 | 34 |
| 131 | Reconciling agriculture, carbon and biodiversity in a savannah transformation frontier. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150316. | 1.8 | 33 |
| 132 | The PROFOUND Database for evaluating vegetation models and simulating climate impacts on European forests. Earth System Science Data, 2020, 12, 1295-1320. | 3.7 | 33 |
| 133 | Did a skillful prediction of sea surface temperatures help or hinder forecasting of the 2012 Midwestern US drought?. Environmental Research Letters, 2014, 9, 034005. | 2.2 | 30 |
| 134 | Assimilation of soil moisture and canopy cover data improves maize simulation using an under-calibrated crop model. Agricultural Water Management, 2021, 252, 106884. | 2.4 | 30 |
| 135 | Cognitive Biases about Climate Variability in Smallholder Farming Systems in Zambia. Weather, Climate, and Society, 2019, 11, 369-383. | 0.5 | 29 |
| 136 | Reply to comment by Keith J. Beven and Hannah L. Cloke on â€œHyperresolution global land surface modeling: Meeting a grand challenge for monitoring Earth's terrestrial waterâ€• Water Resources Research, 2012, 48, . | 1.7 | 26 |
| 137 | Validation of AIRS/AMSUâ€A water vapor and temperature data with in situ aircraft observations from the surface to UT/LS from 87Â°Nâ€“67Â°S. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6816-6836. | 1.2 | 25 |
| 138 | Multimodel Analysis of Energy and Water Fluxes: Intercomparisons between Operational Analyses, a Land Surface Model, and Remote Sensing. Journal of Hydrometeorology, 2012, 13, 3-26. | 0.7 | 24 |
| 139 | SMAP-HydroBlocks, a 30-m satellite-based soil moisture dataset for the conterminous US. Scientific Data, 2021, 8, 264. | 2.4 | 24 |
| 140 | Terrestrial Precipitation Analysis (<scp>TPA</scp>): A resource for characterizing longâ€term precipitation regimes and extremes. Methods in Ecology and Evolution, 2016, 7, 1396-1401. | 2.2 | 23 |
| 141 | Field-scale soil moisture bridges the spatial-scale gap between drought monitoring and agricultural yields. Hydrology and Earth System Sciences, 2021, 25, 1827-1847. | 1.9 | 23 |
| 142 | Using a Gridded Global Dataset to Characterize Regional Hydroclimate in Central Chile. Journal of Hydrometeorology, 2013, 14, 251-265. | 0.7 | 21 |
| 143 | The role of winter precipitation and temperature on northern Eurasian streamflow trends. Journal of Geophysical Research, 2012, 117, . | 3.3 | 20 |
| 144 | Response of electricity sector air pollution emissions to drought conditions in the western United States. Environmental Research Letters, 2018, 13, 124032. | 2.2 | 20 |

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| 145 | Drivers of Variability in Atmospheric Evaporative Demand: Multiscale Spectral Analysis Based on Observations and Physically Based Modeling. Water Resources Research, 2018, 54, 3510-3529. | 1.7 | 20 |
| 146 | Satellite Flood Inundation Assessment and Forecast Using SMAP and Landsat. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 6707-6715. | 2.3 | 20 |
| 147 | Increased Drought and Pluvial Risk over California due to Changing Oceanic Conditions. Journal of Climate, 2016, 29, 8269-8279. | 1.2 | 19 |
| 148 | Historical effects of CO2 and climate trends on global crop water demand. Nature Climate Change, 2017, 7, 901-905. | 8.1 | 19 |
| 149 | The Optimal Multimodel Ensemble of Bias-Corrected CMIP5 Climate Models over China. Journal of Hydrometeorology, 2020, 21, 845-863. | 0.7 | 19 |
| 150 | Confronting terrestrial biosphere models with forest inventory data. , 2014, 24, 699-715. | | 18 |
| 151 | Crop-specific exposure to extreme temperature and moisture for the globe for the last half century. Environmental Research Letters, 2021, 16, 064006. | 2.2 | 18 |
| 152 | Comparing empirical and survey-based yield forecasts in a dryland agro-ecosystem. Agricultural and Forest Meteorology, 2018, 262, 147-156. | 1.9 | 17 |
| 153 | Streamflow prediction in â€œgeopolitically ungaugedâ€•basins using satellite observations and regionalization at subcontinental scale. Journal of Hydrology, 2020, 588, 125016. | 2.3 | 16 |
| 154 | Global sensitivity analysis of crop yield and transpiration from the FAO-AquaCrop model for dryland environments. Field Crops Research, 2021, 269, 108182. | 2.3 | 16 |
| 155 | Changing water availability during the African maize-growing season, 1979â€“2010. Environmental Research Letters, 2014, 9, 075005. | 2.2 | 15 |
| 156 | Twentieth century temperature trends in CMIP3, CMIP5, and CESMâ€ŁE climate simulations: Spatialâ€temporal uncertainties, differences, and their potential sources. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9561-9575. | 1.2 | 15 |
| 157 | Historic and Projected Changes in Coupling Between Soil Moisture and Evapotranspiration (ET) in CMIP5 Models Confounded by the Role of Different ET Components. Journal of Geophysical Research D: Atmospheres, 2019, 124, 5791-5806. | 1.2 | 15 |
| 158 | A stochastic space-time rainfall forecasting system for real time flow forecasting I: Development of MTB conditional rainfall scenario generator. Hydrology and Earth System Sciences, 2000, 4, 603-615. | 1.9 | 14 |
| 159 | Recent changes in cropland area and productivity indicate unsustainable cropland expansion in Malawi. Environmental Research Letters, 2021, 16, 084052. | 2.2 | 14 |
| 160 | Decision support system for desertification mitigation in the Agri basin, southern Italy. Physics and Chemistry of the Earth, 2003, 28, 579-587. | 1.2 | 13 |
| 161 | Climate-driven shifts in continental net primary production implicated as a driver of a recent abrupt increase in the land carbon sink. Biogeosciences, 2016, 13, 1597-1607. | 1.3 | 12 |
| 162 | Increased flooded area and exposure in the White Volta river basin in Western Africa, identified from multi-source remote sensing data. Scientific Reports, 2022, 12, 3701. | 1.6 | 12 |

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