# Rafael L Bras

List of Publications by Year
in descending order

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|---|---|---|---|
| 169 papers | 13,238 citations | 20797 60 h-index | 24232 110 g-index |
| 170 all docs | 170 docs citations | 170 times ranked | 9031 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | On the extraction of channel networks from digital elevation data. Hydrological Processes, 1991, 5, 81-100. | 1.1 | 898 |
| 2 | A coupled channel network growth and hillslope evolution model: 1. Theory. Water Resources Research, 1991, 27, 1671-1684. | 1.7 | 602 |
| 3 | Hillslope processes, drainage density, and landscape morphology. Water Resources Research, 1998, 34, 2751-2764. | 1.7 | 473 |
| 4 | The fractal nature of river networks. Water Resources Research, 1988, 24, 1317-1322. | 1.7 | 422 |
| 5 | Precipitation recycling. Reviews of Geophysics, 1996, 34, 367-378. | 9.0 | 381 |
| 6 | Realâ€time forecasting with a conceptual hydrologic model: 2. Applications and results. Water Resources Research, 1980, 16, 1034-1044. | 1.7 | 279 |
| 7 | A stochastic approach to modeling the role of rainfall variability in drainage basin evolution. Water Resources Research, 2000, 36, 1953-1964. | 1.7 | 276 |
| 8 | Catchment hydrologic response with a fully distributed triangulated irregular network model. Water Resources Research, 2004, 40, . | 1.7 | 268 |
| 9 | Energy dissipation, runoff production, and the three-dimensional structure of river basins. Water Resources Research, 1992, 28, 1095-1103. | 1.7 | 258 |
| 10 | Minimum energy and fractal structures of drainage networks. Water Resources Research, 1992, 28, 2183-2195. | 1.7 | 230 |
| 11 | Vegetation-modulated landscape evolution: Effects of vegetation on landscape processes, drainage density, and topography. Journal of Geophysical Research, 2005, 110, . | 3.3 | 229 |
| 12 | A physical basis for drainage density. Geomorphology, 1992, 5, 59-76. | 1.1 | 218 |
| 13 | An object-oriented framework for distributed hydrologic and geomorphic modeling using triangulated irregular networks. Computers and Geosciences, 2001, 27, 959-973. | 2.0 | 218 |
| 14 | Results from a new model of river basin evolution. Earth Surface Processes and Landforms, 1991, 16, 237-254. | 1.2 | 215 |
| 15 | Statistical analysis of drainage density from digital terrain data. Geomorphology, 2001, 36, 187-202. | 1.1 | 204 |
| 16 | Scaling and elevation in river networks. Water Resources Research, 1989, 25, 2037-2051. | 1.7 | 202 |
| 17 | A coupled channel network growth and hillslope evolution model: 2. Nondimensionalization and applications. Water Resources Research, 1991, 27, 1685-1696. | 1.7 | 197 |
| 18 | Vegetationâ€hydrology dynamics in complex terrain of semiarid areas: 1. A mechanistic approach to modeling dynamic feedbacks. Water Resources Research, 2008, 44, . | 1.7 | 184 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Realâ€time forecasting with a conceptual hydrologic model: 1. Analysis of uncertainty. Water Resources Research, 1980, 16, 1025-1033. | 1.7 | 179 |
| 20 | Estimation of net radiation from the MODIS data under all sky conditions: Southern Great Plains case study. Remote Sensing of Environment, 2010, 114, 1522-1534. | 4.6 | 173 |
| 21 | A geomorphoclimatic theory of the instantaneous unit hydrograph. Water Resources Research, 1982, 18, 877-886. | 1.7 | 172 |
| 22 | Preserving high-resolution surface and rainfall data in operational-scale basin hydrology: a fully-distributed physically-based approach. Journal of Hydrology, 2004, 298, 80-111. | 2.3 | 164 |
| 23 | Variability in Large-Scale Water Balance with Land Surface-Atmosphere Interaction. Journal of Climate, 1992, 5, 798-813. | 1.2 | 161 |
| 24 | A physical explanation of an observed link area-slope relationship. Water Resources Research, 1991, 27, 1697-1702. | 1.7 | 150 |
| 25 | Fractal structures as least energy patterns: The case of river networks. Geophysical Research Letters, 1992, 19, 889-892. | 1.5 | 150 |
| 26 | On the sensitivity of drainage density to climate change. Water Resources Research, 1998, 34, 855-862. | 1.7 | 150 |
| 27 | Scaling regimes of local slope versus contributing area in digital elevation models. Geomorphology, 1995, 12, 299-311. | 1.1 | 148 |
| 28 | The Effect of Spatial Heterogeneities on Geomorphic Expression in a Model of Basin Evolution. Water Resources Research, 1995, 31, 2613-2623. | 1.7 | 147 |
| 29 | Analysis and characterization of the vertical accuracy of digital elevation models from the Shuttle Radar Topography Mission. Journal of Geophysical Research, 2005, 110, . | 3.3 | 145 |
| 30 | Nonlinear Dynamics of Soil Moisture at Climate Scales: 1. Stochastic Analysis. Water Resources Research, 1991, 27, 1899-1906. | 1.7 | 144 |
| 31 | Generation of Triangulated Irregular Networks Based on Hydrological Similarity. Journal of Hydrologic Engineering - ASCE, 2004, 9, 288-302. | 0.8 | 144 |
| 32 | Impact of deforestation in the Amazon basin on cloud climatology. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3670-3674. | 3.3 | 143 |
| 33 | Optimal channel networks: A framework for the study of river basin morphology. Water Resources Research, 1993, 29, 1635-1646. | 1.7 | 135 |
| 34 | A distributed model for real-time flood forecasting using digital elevation models. Journal of Hydrology, 1995, 167, 279-306. | 2.3 | 127 |
| 35 | Network design for the estimation of areal mean of rainfall events. Water Resources Research, 1976, 12, 1185-1195. | 1.7 | 126 |
| 36 | Optimal estimators of mean areal precipitation in regions of orographic influence. Journal of Hydrology, 1982, 57, 23-48. | 2.3 | 118 |

| # | Article | IF | Citations |
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| 37 | A simple model of river meandering and its comparison to natural channels. Hydrological Processes, 2002, 16, 1-26. | 1.1 | 113 |
| 38 | On the dynamics of soil moisture, vegetation, and erosion: Implications of climate variability and change. Water Resources Research, 2006, 42, . | 1.7 | 112 |
| 39 | A physically-based method for removing pits in digital elevation models. Advances in Water Resources, 2007, 30, 2151-2158. | 1.7 | 98 |
| 40 | The fate of Amazonian ecosystems over the coming century arising from changes in climate, atmospheric <scp>CO</scp><sub>2,</sub> and land use. Global Change Biology, 2015, 21, 2569-2587. | 4.2 | 97 |
| 41 | A hydrologically useful station precipitation model: 1. Formulation. Water Resources Research, 1984, 20, 1585-1596. | 1.7 | 96 |
| 42 | Real-world hydrologic assessment of a fully-distributed hydrological model in a parallel computing environment. Journal of Hydrology, 2011, 409, 483-496. | 2.3 | 95 |
| 43 | Intraseasonal water allocation in deficit irrigation. Water Resources Research, 1981, 17, 866-874. | 1.7 | 88 |
| 44 | On the effects of triangulated terrain resolution on distributed hydrologic model response. Hydrological Processes, 2005, 19, 2101-2122. | 1.1 | 88 |
| 45 | Vegetationâ€hydrology dynamics in complex terrain of semiarid areas: 2. Energyâ€water controls of vegetation spatiotemporal dynamics and topographic niches of favorability. Water Resources Research, 2008, 44, . | 1.7 | 88 |
| 46 | Rainfall-induced landslide susceptibility zonation of Puerto Rico. Environmental Earth Sciences, 2012, 66, 1667-1681. | 1.3 | 88 |
| 47 | Downstream fining through selective particle sorting in an equilibrium drainage network. Geology, 1999, 27, 1079. | 2.0 | 87 |
| 48 | A weather generator for hydrological, ecological, and agricultural applications. Water Resources Research, 2007, 43, . | 1.7 | 87 |
| 49 | Seasonal carbon dynamics and water fluxes in an <scp>A</scp>mazon rainforest. Global Change Biology, 2012, 18, 1322-1334. | 4.2 | 87 |
| 50 | Rainfall generation: A nonstationary timeâ€varying multidimensional model. Water Resources Research, 1976, 12, 450-456. | 1.7 | 86 |
| 51 | Analytical solutions to hillslope subsurface storm flow and saturation overland flow. Water Resources Research, 1998, 34, 921-927. | 1.7 | 86 |
| 52 | The linear channel and its effect on the geomorphologic IUH. Journal of Hydrology, 1983, 65, 175-208. | 2.3 | 81 |
| 53 | Network-scale dynamics of grain-size sorting: implications for downstream fining, stream-profile concavity, and drainage basin morphology. Earth Surface Processes and Landforms, 2004, 29, 401-421. | 1.2 | 79 |
| 54 | Development of gullies on the landscape: A model of headcut retreat resulting from plunge pool erosion. Journal of Geophysical Research, 2006, 111, . | 3.3 | 79 |

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| 55 | Ecoâ€geomorphic implications of hillslope aspect: Inferences from analysis of landscape morphology in central New Mexico. Geophysical Research Letters, 2008, 35, . | 1.5 | 77 |
| 56 | The Impact of Observed Deforestation on the Mesoscale Distribution of Rainfall and Clouds in Amazonia. Journal of Hydrometeorology, 2000, 1, 267-286. | 0.7 | 75 |
| 57 | The importance of spatially heterogeneous erosivity and the cumulative area distribution within a basin evolution model. Geomorphology, 1995, 12, 173-185. | 1.1 | 72 |
| 58 | Extending the Predictability of Hydrometeorological Flood Events Using Radar Rainfall Nowcasting. Journal of Hydrometeorology, 2006, 7, 660-677. | 0.7 | 69 |
| 59 | The irrigation scheduling problem and evapotranspiration uncertainty. Water Resources Research, 1981, 17, 1328-1338. | 1.7 | 63 |
| 60 | Ecohydrologic role of solar radiation on landscape evolution. Water Resources Research, 2015, 51, 1127-1157. | 1.7 | 63 |
| 61 | The biophysics, ecology, and biogeochemistry of functionally diverse, vertically and horizontally heterogeneous ecosystems: the Ecosystem Demography model, version 2.2 â€“ Part 1: Model description. Geoscientific Model Development, 2019, 12, 4309-4346. | 1.3 | 62 |
| 62 | Use of Weather Radar for Flood Forecasting in the Sieve River Basin: A Sensitivity Analysis. Journal of Applied Meteorology and Climatology, 1993, 32, 462-475. | 1.7 | 59 |
| 63 | Effects of initialization on response of a fully-distributed hydrologic model. Journal of Hydrology, 2008, 352, 107-125. | 2.3 | 58 |
| 64 | Distributed Quantitative Precipitation Forecasting Using Information from Radar and Numerical Weather Prediction Models. Journal of Hydrometeorology, 2003, 4, 1168-1180. | 0.7 | 57 |
| 65 | Physically based probabilistic models of infiltration, soil moisture, and actual evapotranspiration. Water Resources Research, 1981, 17, 93-106. | 1.7 | 56 |
| 66 | Hack's relation and optimal channel networks: The elongation of river basins as a consequence of energy minimization. Geophysical Research Letters, 1993, 20, 1583-1586. | 1.5 | 56 |
| 67 | A kinematic model of infiltration and runoff generation in layered and sloped soils. Advances in Water Resources, 1992, 15, 311-324. | 1.7 | 55 |
| 68 | Implications of bank failures and fluvial erosion for gully development: Field observations and modeling. Journal of Geophysical Research, 2005, 110, . | 3.3 | 55 |
| 69 | A model of surface heat fluxes based on the theory of maximum entropy production. Water Resources Research, 2009, 45, . | 1.7 | 55 |
| 70 | Multifractal analysis: Pitfalls of standard procedures and alternatives. Physical Review E, 1995, 52, 1387-1398. | 0.8 | 54 |
| 71 | On the observed ecohydrologic dynamics of a semiarid basin with aspect-delimited ecosystems. Water Resources Research, 2013, 49, 8263-8284. | 1.7 | 54 |
| 72 | Energy balance at the Earth's surface: Heat flux history in eastern Canada. Geophysical Research Letters, 2000, 27, 3385-3388. | 1.5 | 52 |

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| 73 | Topographic variability and the influence of soil erosion on the carbon cycle. Global Biogeochemical Cycles, 2016, 30, 644-660. | 1.9 | 49 |
| 74 | Numerical modeling of nonâ€“steady-state river profile evolution using a sediment-flux-dependent incision model. , 2006, , . | | 47 |
| 75 | Estimation of Net Radiation From the Moderate Resolution Imaging Spectroradiometer Over the Continental United States. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 2448-2462. | 2.7 | 46 |
| 76 | Bias Correction of Climate Modeled Temperature and Precipitation Using Artificial Neural Networks. Journal of Hydrometeorology, 2017, 18, 1867-1884. | 0.7 | 46 |
| 77 | A hydrologically useful station precipitation model: 2. Case studies. Water Resources Research, 1984, 20, 1597-1610. | 1.7 | 45 |
| 78 | Estimation of Global Ground Heat Flux. Journal of Hydrometeorology, 2008, 9, 744-759. | 0.7 | 43 |
| 79 | Impact of Hillslope-Scale Organization of Topography, Soil Moisture, Soil Temperature, and Vegetation on Modeling Surface Microwave Radiation Emission. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 2557-2571. | 2.7 | 43 |
| 80 | Rainfall network design for runoff prediction. Water Resources Research, 1976, 12, 1197-1208. | 1.7 | 42 |
| 81 | Real-time, statistically linearized, adaptive flood routing. Water Resources Research, 1982, 18, 513-524. | 1.7 | 42 |
| 82 | Sensitivity of a basin evolution model to the nature of runoff production and to initial conditions. Water Resources Research, 1992, 28, 2733-2741. | 1.7 | 41 |
| 83 | Ecohydrological response to a geomorphically significant flood event in a semiarid catchment with contrasting ecosystems. Geophysical Research Letters, 2007, 34, . | 1.5 | 41 |
| 84 | Adaptive filtering through detection of isolated transient errors in rainfallâ€runoff models. Water Resources Research, 1980, 16, 740-748. | 1.7 | 40 |
| 85 | Geoarchaeological simulation of meandering river deposits and settlement distributions: A three-dimensional approach. Geoarchaeology - an International Journal, 2006, 21, 843-874. | 0.7 | 40 |
| 86 | Sensitivity of regional climate to deforestation in the Amazon basin. Advances in Water Resources, 1994, 17, 101-115. | 1.7 | 39 |
| 87 | Hydrologic modeling Of New England river basins using radar rainfall data. Journal of Geophysical Research, 1990, 95, 2143-2152. | 3.3 | 37 |
| 88 | An extremum principle of evaporation. Water Resources Research, 2004, 40, . | 1.7 | 37 |
| 89 | Estimation of flood frequency: An evaluation of two derived distribution procedures. Water Resources Research, 1987, 23, 1309-1319. | 1.7 | 35 |
| 90 | Impacts of surface elevation on the growth and scaling properties of simulated river networks. Geomorphology, 2001, 40, 37-55. | 1.1 | 35 |

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| 91 | Application of nonlinear filtering in the real time forecasting of river flows. Water Resources Research, 1987, 23, 675-682. | 1.7 | 34 |
| 92 | A model of river basin evolution. Eos, 1990, 71, 1806. | 0.1 | 34 |
| 93 | Sensitivity of a physically based method for terrain interpolation to initial conditions and its conditioning on stream location. Earth Surface Processes and Landforms, 2004, 29, 587-597. | 1.2 | 34 |
| 94 | tRIBS-Erosion: A parsimonious physically-based model for studying catchment hydro-geomorphic response. Catena, 2012, 92, 216-231. | 2.2 | 34 |
| 95 | A maximum hypothesis of transpiration. Journal of Geophysical Research, 2007, 112, . | 3.3 | 33 |
| 96 | Uncertainty propagation with numerical models for flow and transport in the unsaturated zone. Water Resources Research, 1990, 26, 2463-2474. | 1.7 | 31 |
| 97 | The one-dimensional approximation for infiltration in heterogeneous soils. Water Resources Research, 1991, 27, 1019-1027. | 1.7 | 31 |
| 98 | The relationship between catchment and hillslope properties: implications of a catchment evolution model. Geomorphology, 1992, 5, 21-37. | 1.1 | 30 |
| 99 | An integrated software environment for real-time use of a distributed hydrologic model. Journal of Hydrology, 1995, 167, 307-326. | 2.3 | 30 |
| 100 | Dynamic root distributions in ecohydrological modeling: A case study at Walnut Gulch Experimental Watershed. Water Resources Research, 2013, 49, 3292-3305. | 1.7 | 30 |
| 101 | Shrunken Locally Linear Embedding for Passive Microwave Retrieval of Precipitation. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 3720-3736. | 2.7 | 30 |
| 102 | On the multifractal characterization of river basins. Geomorphology, 1992, 5, 297-310. | 1.1 | 29 |
| 103 | Embedding landscape processes into triangulated terrain models. International Journal of Geographical Information Science, 2005, 19, 429-457. | 2.2 | 29 |
| 104 | The biophysics, ecology, and biogeochemistry of functionally diverse, vertically and horizontally heterogeneous ecosystems: the Ecosystem Demography model, version 2.2 â€“ Part 2: Model evaluation for tropical South America. Geoscientific Model Development, 2019, 12, 4347-4374. | 1.3 | 29 |
| 105 | Conditional Distributions of Neymanâ€“Scott Models for Storm Arrivals and Their Use in Irrigation Scheduling. Water Resources Research, 1985, 21, 317-330. | 1.7 | 28 |
| 106 | A MODEL FOR WATER UPTAKE AND DEVELOPMENT OF ROOT SYSTEMS. Soil Science, 1987, 144, 352-366. | 0.9 | 28 |
| 107 | Six Myths About Mathematical Modeling in Geomorphology. Geophysical Monograph Series, 0, , 63-79. | 0.1 | 28 |
| 108 | Evaluation of mean square error involved in approximating the areal average of a rainfall event by a discrete summation. Water Resources Research, 1976, 12, 181-184. | 1.7 | 27 |

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| 109 | An Extremum Solution of the Moninâ€“Obukhov Similarity Equations. Journals of the Atmospheric Sciences, 2010, 67, 485-499. | 0.6 | 27 |
| 110 | A physically constrained inversion for high-resolution passive microwave retrieval of soil moisture and vegetation water content in L-band. Remote Sensing of Environment, 2019, 233, 111346. | 4.6 | 26 |
| 111 | Complexity and organization in hydrology: A personal view. Water Resources Research, 2015, 51, 6532-6548. | 1.7 | 25 |
| 112 | A new method for estimation of sensible heat flux from air temperature. Water Resources Research, 1998, 34, 2281-2288. | 1.7 | 24 |
| 113 | Climatological Basin-Scale Amazonian Evapotranspiration Estimated through a Water Budget Analysis. Journal of Hydrometeorology, 2008, 9, 1048-1060. | 0.7 | 24 |
| 114 | A model of energy budgets over water, snow, and ice surfaces. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6034-6051. | 1.2 | 24 |
| 115 | Timeâ€averaged areal mean of precipitation: Estimation and network design. Water Resources Research, 1978, 14, 878-888. | 1.7 | 23 |
| 116 | Multivariate shortâ€term rainfall prediction. Water Resources Research, 1980, 16, 173-185. | 1.7 | 23 |
| 117 | Hydrologic data assimilation with a hillslopeâ€scaleâ€resolving model and L band radar observations: Synthetic experiments with the ensemble Kalman filter. Water Resources Research, 2012, 48, . | 1.7 | 23 |
| 118 | Clustered or regular cumulus cloud fields: The statistical character of observed and simulated cloud fields. Journal of Geophysical Research, 1990, 95, 2035-2045. | 3.3 | 21 |
| 119 | Analytical Solution for Channel Routing with Uniform Lateral Inflow. Journal of Hydraulic Engineering, 1999, 125, 707-713. | 0.7 | 21 |
| 120 | Identifying the optimal spatially and temporally invariant root distribution for a semiarid environment. Water Resources Research, 2012, 48, . | 1.7 | 21 |
| 121 | Dynamical Precipitation Downscaling for Hydrologic Applications Using WRF 4D-Var Data Assimilation: Implications for GPM Era. Journal of Hydrometeorology, 2015, 16, 811-829. | 0.7 | 21 |
| 122 | Soil moisture background error covariance and data assimilation in a coupled landâ€atmosphere model. Water Resources Research, 2017, 53, 1309-1335. | 1.7 | 21 |
| 123 | Breaking Down the Computational Barriers to Realâ€Time Urban Flood Forecasting. Geophysical Research Letters, 2021, 48, e2021GL093585. | 1.5 | 21 |
| 124 | Irrigation control in the presence of salinity: Extended linear quadratic approach. Water Resources Research, 1987, 23, 1153-1161. | 1.7 | 20 |
| 125 | Stateâ€space dynamic hydrological modeling of soilâ€cropâ€climate interactions. Water Resources Research, 1988, 24, 1765-1779. | 1.7 | 19 |
| 126 | Application of a hillslope-scale soil moisture data assimilation system to military trafficability assessment. Journal of Terramechanics, 2014, 51, 53-66. | 1.4 | 18 |

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| 127 | Impact of hydrologically driven hillslope erosion and landslide occurrence on soil organic carbon dynamics in tropical watersheds. Water Resources Research, 2016, 52, 8895-8919. | 1.7 | 18 |
| 128 | Evaluation of ShARP Passive Rainfall Retrievals over Snow-Covered Land Surfaces and Coastal Zones. Journal of Hydrometeorology, 2016, 17, 1013-1029. | 0.7 | 17 |
| 129 | Biasâ€corrected data sets of climate model outputs at uniform spaceâ€“time resolution for land surface modelling over Amazonia. International Journal of Climatology, 2017, 37, 621-636. | 1.5 | 17 |
| 130 | Combined Assimilation of Satellite Precipitation and Soil Moisture: A Case Study Using TRMM and SMOS Data. Monthly Weather Review, 2017, 145, 4997-5014. | 0.5 | 17 |
| 131 | Numerical Simulation of Nonlinear Mesoscale Circulations Induced by the Thermal Heterogeneities of Land Surface. Journals of the Atmospheric Sciences, 1998, 55, 447-464. | 0.6 | 17 |
| 132 | A Brief History of Hydrology*. Bulletin of the American Meteorological Society, 1999, 80, 1151-1164. | 1.7 | 16 |
| 133 | Evaluation of the Quality of Precipitation Products: A Case Study Using WRF and IMERG Data over the Central United States. Journal of Hydrometeorology, 2018, 19, 2007-2020. | 0.7 | 16 |
| 134 | Comment on â€œOn the fractal dimension of stream networksâ€•by Paolo La Barbera and Renzo Rosso. Water Resources Research, 1990, 26, 2243-2244. | 1.7 | 15 |
| 135 | Sensitivity of channel profiles to precipitation properties in mountain ranges. Journal of Geophysical Research, 2006, 111, . | 3.3 | 15 |
| 136 | Reproducibility of soil moisture ensembles when representing soil parameter uncertainty using a Latin Hypercubeâ€“based approach with correlation control. Water Resources Research, 2010, 46, . | 1.7 | 15 |
| 137 | Sampling of interrelated random fields: The rainfallâ€•runoff case. Water Resources Research, 1979, 15, 1767-1780. | 1.7 | 13 |
| 138 | A view of maximum-likelihood estimation with large conceptual hydrologic models. Applied Mathematics and Computation, 1985, 17, 375-403. | 1.4 | 13 |
| 139 | Combined hydrologic sampling criteria for rainfall and streamflow. Journal of Hydrology, 1987, 95, 323-339. | 2.3 | 13 |
| 140 | A geomorphic perspective on terrainâ€•modulated organization of vegetation productivity: analysis in two semiarid grassland ecosystems in Southwestern United States. Ecohydrology, 2014, 7, 242-257. | 1.1 | 13 |
| 141 | Integration of fuzzy logic and image analysis for the detection of gullies in the Calhoun Critical Zone Observatory using airborne LiDAR data. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 126, 209-224. | 4.9 | 13 |
| 142 | Hydrologic sampling â€” A characterization in terms of rainfall and basin properties. Journal of Hydrology, 1988, 102, 113-135. | 2.3 | 12 |
| 143 | Self-affine scaling of fractal river courses and basin boundaries. Physica A: Statistical Mechanics and Its Applications, 1994, 209, 288-300. | 1.2 | 12 |
| 144 | Sensible heat flux estimated from one-level air temperature near the land surface. Geophysical Research Letters, 2004, 31, n/a-n/a. | 1.5 | 11 |

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| 145 | Ecohydrological controls on grass and shrub aboveâ€ground net primary productivity in a seasonally dry climate. Ecohydrology, 2015, 8, 1572-1583. | 1.1 | 11 |
| 146 | Spatial variability in subsurface flow and transport: a review. Reliability Engineering and System Safety, 1993, 42, 293-316. | 5.1 | 10 |
| 147 | Maximum Entropy Distributions of Scale-Invariant Processes. Physical Review Letters, 2010, 105, 118701. | 2.9 | 10 |
| 148 | Real-time estimation of velocity and covariance structure of rainfall events using telemetered raingage data â€" A comparison of methods. Journal of Hydrology, 1979, 44, 97-123. | 2.3 | 9 |
| 149 | A physically based interpolation method for fluvially eroded topography. Water Resources Research, 2003, 39, . | 1.7 | 9 |
| 150 | Estimates of Net Atmospheric Moisture Flux Convergence over the Amazon Basin: A Comparison of Reanalysis Products. Journal of Hydrometeorology, 2008, 9, 1035-1047. | 0.7 | 9 |
| 151 | Forest Structure and Composition Are Critical to Hurricane Mortality. Forests, 2022, 13, 202. | 0.9 | 7 |
| 152 | Incorporation of Channel Losses in the Geomorphologic IUH. Water Science and Technology Library, 1986, , 217-243. | 0.2 | 5 |
| 153 | Analytical solutions for unsteady multidimensional infiltration in heterogeneous soils. Water Resources Research, 1991, 27, 1029-1034. | 1.7 | 5 |
| 154 | Effect of temperature on surface energy balance. Water Resources Research, 2001, 37, 3383-3386. | 1.7 | 5 |
| 155 | Regressionâ€based regionalization for bias correction of temperature and precipitation. International Journal of Climatology, 2019, 39, 3298-3312. | 1.5 | 5 |
| 156 | The impact of hurricane disturbances on a tropical forest: implementing a palm plant functional type and hurricane disturbance module in ED2-HuDi V1.0. Geoscientific Model Development, 2022, 15, 5107-5126. | 1.3 | 5 |
| 157 | Structure in fluctuations of large-scale soil moisture climate due to external random forcing and internal feedbacks. Stochastic Hydrology & Hydraulics, 1997, 11, 95-114. | 0.5 | 4 |
| 158 | Numerical Predictions of the Sensitivity of Grain Size and Channel Slope to an Increase in Precipitation. , 2008, , 367-394. | | 4 |
| 159 | Error identification and decomposition in large stochastic rainfall-runoff models. Automatica, 1987, 23, 581-588. | 3.0 | 3 |
| 160 | A derived PDF for the initial soil moisture in a catchment. Journal of Hydrology, 1990, 113, 163-176. | 2.3 | 3 |
| 161 | Hydroâ€geomorphic perturbations on the soilâ€atmosphere CO<sub>2</sub> exchange: How (un)certain are our balances?. Water Resources Research, 2017, 53, 1664-1682. | 1.7 | 3 |
| 162 | Effect of Logarithmically Transformed IMERG Precipitation Observations in WRF 4D-Var Data Assimilation System. Water (Switzerland), 2020, 12, 1918. | 1.2 | 2 |

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| 163 | Parsing Long-Term Tree Recruitment, Growth, and Mortality to Identify Hurricane Effects on Structural and Compositional Change in a Tropical Forest. Forests, 2022, 13, 796. | 0.9 | 2 |
| 164 | The effects of hydrometeorology on the GOES random data collection system. Hydrological Sciences Journal, 1985, 30, 1-23. | 1.2 | 1 |
| 165 | Simulation of water allocation and salt movement in the root zone. Water Resources Management, 1991, 5, 121-147. | 1.9 | 1 |
| 166 | Assessing hydrological extreme events with geospatial data and models. Eos, 2004, 85, 371. | 0.1 | 1 |
| 167 | An application of the maximum entropy production principle in modeling heat fluxes over land surfaces. , 2012, , . | | 1 |
| 168 | Hydroâ€geomorphic behavior of contrasting tropical landscapes and critical zone response to changing climate. Earth Surface Processes and Landforms, 2019, 44, 641-654. | 1.2 | 1 |
| 169 | MaxEnt and MaxEP in Modeling Fractal Topography and Atmospheric Turbulence. Understanding Complex Systems, 2014, , 309-322. | 0.3 | 0 |