# Yaning Chen

## List of Publications by Year in descending order



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|---|---|---|---|
| 126 papers | 5,879 citations | 70961 41 h-index | 91712 69 g-index |
| 142 all docs | 142 docs citations | 142 times ranked | 4105 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Comparing bias correction methods in downscaling meteorological variables for a hydrologic impact study in an arid area in China. Hydrology and Earth System Sciences, 2015, 19, 2547-2559. | 1.9 | 347 |
| 2 | Regional climate change and its effects on river runoff in the Tarim Basin, China. Hydrological Processes, 2006, 20, 2207-2216. | 1.1 | 231 |
| 3 | Progress and prospects of climate change impacts on hydrology in the arid region of northwest China. Environmental Research, 2015, 139, 11-19. | 3.7 | 216 |
| 4 | Influences of recent climate change and human activities on water storage variations in Central Asia. Journal of Hydrology, 2017, 544, 46-57. | 2.3 | 197 |
| 5 | Changes in Central Asiaâ€™s Water Tower: Past, Present and Future. Scientific Reports, 2016, 6, 35458. | 1.6 | 195 |
| 6 | Potential impacts of climate change on vegetation dynamics in Central Asia. Journal of Geophysical Research D: Atmospheres, 2015, 120, 12345-12356. | 1.2 | 193 |
| 7 | Abrupt change of temperature and precipitation extremes in the arid region of Northwest China. Quaternary International, 2014, 336, 35-43. | 0.7 | 141 |
| 8 | Trends of major hydroclimatic variables in the Tarim River basin during the past 50 years. Journal of Arid Environments, 2010, 74, 256-267. | 1.2 | 137 |
| 9 | Why does the temperature rise faster in the arid region of northwest China?. Journal of Geophysical Research, 2012, 117, . | 3.3 | 132 |
| 10 | Multi-scale assessments of droughts: A case study in Xinjiang, China. Science of the Total Environment, 2018, 630, 444-452. | 3.9 | 131 |
| 11 | Multivariate assessment and attribution of droughts in Central Asia. Scientific Reports, 2017, 7, 1316. | 1.6 | 122 |
| 12 | Spatial and temporal variability of drought in the arid region of China and its relationships to teleconnection indices. Journal of Hydrology, 2015, 523, 283-296. | 2.3 | 116 |
| 13 | Temperature and precipitation changes in different environments in the arid region of northwest China. Theoretical and Applied Climatology, 2013, 112, 589-596. | 1.3 | 111 |
| 14 | Recent climate and hydrological changes in a mountainâ€“basin system in Xinjiang, China. Earth-Science Reviews, 2022, 226, 103957. | 4.0 | 107 |
| 15 | Quantifying the effects of climate variability and human activities on runoff for Kaidu River Basin in arid region of northwest China. Theoretical and Applied Climatology, 2013, 111, 537-545. | 1.3 | 95 |
| 16 | New interpretation of the role of water balance in an extended Budyko hypothesis in arid regions. Hydrology and Earth System Sciences, 2016, 20, 393-409. | 1.9 | 89 |
| 17 | Effects of ecological water conveyance on groundwater dynamics and riparian vegetation in the lower reaches of Tarim River, China. Hydrological Processes, 2010, 24, 170-177. | 1.1 | 82 |
| 18 | Evaluation and Future Projection of Chinese Precipitation Extremes Using Large Ensemble High-Resolution Climate Simulations. Journal of Climate, 2019, 32, 2169-2183. | 1.2 | 78 |

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|---|---|---|---|
| 19 | Large Hydrological Processes Changes in the Transboundary Rivers of Central Asia. Journal of Geophysical Research D: Atmospheres, 2018, 123, 5059-5069. | 1.2 | 76 |
| 20 | Sustainable water management for cross-border resources: The Balkhash Lake Basin of Central Asia, 1931â€“2015. Journal of Cleaner Production, 2020, 263, 121614. | 4.6 | 76 |
| 21 | Responses of Surface Runoff to Climate Change and Human Activities in the Arid Region of Central Asia: A Case Study in the Tarim River Basin, China. Environmental Management, 2013, 51, 926-938. | 1.2 | 75 |
| 22 | Rapidly declining surface and terrestrial water resources in Central Asia driven by socio-economic and climatic changes. Science of the Total Environment, 2021, 784, 147193. | 3.9 | 71 |
| 23 | Dealing with equality and benefit for water allocation in a lake watershed: A Gini-coefficient based stochastic optimization approach. Journal of Hydrology, 2018, 561, 322-334. | 2.3 | 69 |
| 24 | Comprehensive evaluation and sustainable development of waterâ€“energyâ€“foodâ€“ecology systems in Central Asia. Renewable and Sustainable Energy Reviews, 2022, 157, 112061. | 8.2 | 67 |
| 25 | Global perspective on hydrology, water balance, and water resources management in arid basins. Hydrological Processes, 2010, 24, 129-135. | 1.1 | 66 |
| 26 | Analysis on the ecological benefits of the stream water conveyance to the dried-up river of the lower reaches of Tarim River, China. Science in China Series D: Earth Sciences, 2004, 47, 1053-1064. | 0.9 | 64 |
| 27 | Review article: Hydrological modeling in glacierized catchments of central Asia â€“ status and challenges. Hydrology and Earth System Sciences, 2017, 21, 669-684. | 1.9 | 62 |
| 28 | The impact of climate change and human activities on the Aral Sea Basin over the past 50Âyears. Atmospheric Research, 2020, 245, 105125. | 1.8 | 62 |
| 29 | Quantifying the contributions of snow/glacier meltwater to river runoff in the Tianshan Mountains, Central Asia. Global and Planetary Change, 2019, 174, 47-57. | 1.6 | 60 |
| 30 | Response of glacial-lake outburst floods to climate change in the Yarkant River basin on northern slope of Karakoram Mountains, China. Quaternary International, 2010, 226, 75-81. | 0.7 | 58 |
| 31 | Water and ecological security: dealing with hydroclimatic challenges at the heart of Chinaâ€™s Silk Road. Environmental Earth Sciences, 2016, 75, 1. | 1.3 | 57 |
| 32 | Agricultural water demands in Central Asia under 1.5â€Â°C and 2.0â€Â°C global warming. Agricultural Water Management, 2020, 231, 106020. | 2.4 | 55 |
| 33 | Runoff responses to climate change in arid region of northwestern China during 1960â€“2010. Chinese Geographical Science, 2013, 23, 286-300. | 1.2 | 54 |
| 34 | Photosynthesis of Populus euphratica in relation to groundwater depths and high temperature in arid environment, northwest China. Photosynthetica, 2010, 48, 257-268. | 0.9 | 53 |
| 35 | Water resource formation and conversion and water security in arid region of Northwest China. Journal of Chinese Geography, 2016, 26, 939-952. | 1.5 | 49 |
| 36 | Improving MODIS snow products with a HMRF-based spatio-temporal modeling technique in the Upper Rio Grande Basin. Remote Sensing of Environment, 2018, 204, 568-582. | 4.6 | 49 |

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|---|---|---|---|
| 37 | Hydrological and water cycle processes of inland river basins in the arid region of Northwest China. Journal of Arid Land, 2019, 11, 161-179. | 0.9 | 49 |
| 38 | Ecohydrological effects of streamâ€“aquifer water interaction: a case study of the Heihe River basin, northwestern China. Hydrology and Earth System Sciences, 2016, 20, 2333-2352. | 1.9 | 46 |
| 39 | Dry/wet pattern changes in global dryland areas over the past six decades. Global and Planetary Change, 2019, 178, 184-192. | 1.6 | 46 |
| 40 | Development and utilization of water resources and assessment of water security in Central Asia. Agricultural Water Management, 2020, 240, 106297. | 2.4 | 46 |
| 41 | Comparison of three drought indices and their evolutionary characteristics in the arid region of northwestern China. Atmospheric Science Letters, 2017, 18, 132-139. | 0.8 | 44 |
| 42 | Dynamic changes in terrestrial net primary production and their effects on evapotranspiration. Hydrology and Earth System Sciences, 2016, 20, 2169-2178. | 1.9 | 43 |
| 43 | Changes in temporal inequality of precipitation extremes over China due to anthropogenic forcings. Npj Climate and Atmospheric Science, 2022, 5, . | 2.6 | 43 |
| 44 | Characterization of photosynthesis of Populus euphratica grown in the arid region. Photosynthetica, 2006, 44, 622-626. | 0.9 | 41 |
| 45 | Vegetation dynamics and their response to hydroclimatic factors in the Tarim River Basin, China. Ecohydrology, 2013, 6, 927-936. | 1.1 | 40 |
| 46 | Rational groundwater table indicated by the eco-physiological parameters of the vegetation: A case study of ecological restoration in the lower reaches of the Tarim River. Science Bulletin, 2006, 51, 8-15. | 1.7 | 37 |
| 47 | Integrating Wavelet Analysis and BPANN to Simulate the Annual Runoff With Regional Climate Change: A Case Study of Yarkand River, Northwest China. Water Resources Management, 2014, 28, 2523-2537. | 1.9 | 36 |
| 48 | How Hydrologic Processes Differ Spatially in a Large Basin: Multisite and Multiobjective Modeling in the Tarim River Basin. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7098-7113. | 1.2 | 36 |
| 49 | Recent Lake Area Changes in Central Asia. Scientific Reports, 2019, 9, 16277. | 1.6 | 35 |
| 50 | Stable isotopes of atmospheric precipitation and its environmental drivers in the Eastern Chinese Loess Plateau, China. Journal of Hydrology, 2020, 581, 124404. | 2.3 | 35 |
| 51 | An integrated assessment of runoff dynamics in the Amu Darya River Basin: Confronting climate change and multiple human activities, 1960â€“2017. Journal of Hydrology, 2021, 603, 126905. | 2.3 | 34 |
| 52 | The complex nonlinear systems with fractal as well as chaotic dynamics of annual runoff processes in the three headwaters of the Tarim River. Journal of Chinese Geography, 2009, 19, 25-35. | 1.5 | 32 |
| 53 | Assessment of the Irrigation Water Requirement and Water Supply Risk in the Tarim River Basin, Northwest China. Sustainability, 2019, 11, 4941. | 1.6 | 32 |
| 54 | Does elevation dependent warming exist in high mountain Asia?. Environmental Research Letters, 2020, 15, 024012. | 2.2 | 32 |

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|---|---|---|---|
| 55 | An integrated statistical approach to identify the nonlinear trend of runoff in the Hotan River and its relation with climatic factors. Stochastic Environmental Research and Risk Assessment, 2011, 25, 223-233. | 1.9 | 31 |
| 56 | Characteristics of drought in the arid region of northwestern China. Climate Research, 2015, 62, 99-113. | 0.4 | 31 |
| 57 | A hybrid model to assess the impact of climate variability on streamflow for an ungauged mountainous basin. Climate Dynamics, 2018, 50, 2829-2844. | 1.7 | 31 |
| 58 | Mass balance observations and reconstruction for Batysh Sook Glacier, Tien Shan, from 2004 to 2016. Cold Regions Science and Technology, 2017, 135, 76-89. | 1.6 | 30 |
| 59 | Xylem hydraulic conductivity and embolism in riparian plants and their responses to drought stress in desert of Northwest China. Ecohydrology, 2013, 6, 984-993. | 1.1 | 29 |
| 60 | A hybrid model to simulate the annual runoff of the Kaidu River in northwest China. Hydrology and Earth System Sciences, 2016, 20, 1447-1457. | 1.9 | 29 |
| 61 | Potential risks and challenges of climate change in the arid region of northwestern China. Regional Sustainability, 2020, 1, 20-30. | 1.1 | 29 |
| 62 | Historic and Simulated Desert-Oasis Ecotone Changes in the Arid Tarim River Basin, China. Remote Sensing, 2021, 13, 647. | 1.8 | 29 |
| 63 | Variation in agricultural water demand and its attributions in the arid Tarim River Basin. Journal of Agricultural Science, 2018, 156, 301-311. | 0.6 | 28 |
| 64 | Glacier and snow variations and their impacts on regional water resources in mountains. Journal of Chinese Geography, 2019, 29, 84-100. | 1.5 | 28 |
| 65 | Impact of GCM structure uncertainty on hydrological processes in an arid area of China. Hydrology Research, 2018, 49, 893-907. | 1.1 | 27 |
| 66 | Ecological Impacts of Land Use Change in the Arid Tarim River Basin of China. Remote Sensing, 2022, 14, 1894. | 1.8 | 27 |
| 67 | Water use strategies of the desert riparian forest plant community in the lower reaches of Heihe River Basin, China. Science China Earth Sciences, 2014, 57, 1293-1305. | 2.3 | 26 |
| 68 | Climate and topographic controls on snow phenology dynamics in the Tienshan Mountains, Central Asia. Atmospheric Research, 2020, 236, 104813. | 1.8 | 26 |
| 69 | Estimation of net primary productivity and its driving factors in the Ili River Valley, China. Journal of Arid Land, 2018, 10, 781-793. | 0.9 | 25 |
| 70 | Impact of Climate Change on the Hydrological Regime of the Yarkant River Basin, China: An Assessment Using Three SSP Scenarios of CMIP6 GCMs. Remote Sensing, 2022, 14, 115. | 1.8 | 25 |
| 71 | Recent Changes in Water Discharge in Snow and Glacier Melt-Dominated Rivers in the Tienshan Mountains, Central Asia. Remote Sensing, 2020, 12, 2704. | 1.8 | 24 |
| 72 | Increasing terrestrial ecosystem carbon release in response to autumn cooling and warming. Nature Climate Change, 2022, 12, 380-385. | 8.1 | 24 |

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|---|---|---|---|
| 73 | Multiobjective sensitivity analysis and optimization of distributed hydrologic model MOBIDIC. Hydrology and Earth System Sciences, 2014, 18, 4101-4112. | 1.9 | 22 |
| 74 | Drought promoted the disappearance of civilizations along the ancient Silk Road. Environmental Earth Sciences, 2016, 75, 1. | 1.3 | 22 |
| 75 | Recent fall Eurasian cooling linked to North Pacific sea surface temperatures and a strengthening Siberian high. Nature Communications, 2020, 11, 5202. | 5.8 | 22 |
| 76 | Declining snowfall fraction in the alpine regions, Central Asia. Scientific Reports, 2020, 10, 3476. | 1.6 | 22 |
| 77 | Recent vegetation browning and its drivers on Tianshan Mountain, Central Asia. Ecological Indicators, 2021, 129, 107912. | 2.6 | 22 |
| 78 | Spatial and temporal variability of water vapor pressure in the arid region of northwest China, during 1961â€“2011. Theoretical and Applied Climatology, 2016, 123, 683-691. | 1.3 | 21 |
| 79 | Study on the utilization efficiency of land and water resources in the Aral Sea Basin, Central Asia. Sustainable Cities and Society, 2019, 51, 101693. | 5.1 | 21 |
| 80 | Multi-Objective Sensitivity Analysis of a Fully Distributed Hydrologic Model WetSpa. Water Resources Management, 2012, 26, 109-128. | 1.9 | 19 |
| 81 | Characteristics in streamflow and extremes in the Tarim River, China: trends, distribution and climate linkage. International Journal of Climatology, 2015, 35, 761-776. | 1.5 | 19 |
| 82 | Assessment of efficiency and potentiality of agricultural resources in Central Asia. Journal of Chinese Geography, 2018, 28, 1329-1340. | 1.5 | 19 |
| 83 | Observed changes in extreme precipitation over the Tienshan Mountains and associated large-scale climate teleconnections. Journal of Hydrology, 2022, 606, 127457. | 2.3 | 19 |
| 84 | Analysis on water potential of Populus euphratica oliv and its meaning in the lower reaches of Tarim River, Xinjiang. Science Bulletin, 2006, 51, 221-228. | 1.7 | 18 |
| 85 | Effect of subâ€cloud evaporation on precipitation in the Tianshan Mountains (Central Asia) under the influence of global warming. Hydrological Processes, 2020, 34, 5557-5566. | 1.1 | 18 |
| 86 | Adaptability of machine learning methods and hydrological models to discharge simulations in data-sparse glaciated watersheds. Journal of Arid Land, 2021, 13, 549-567. | 0.9 | 18 |
| 87 | Water resources management and dynamic changes in water politics in the transboundary river basins of Central Asia. Hydrology and Earth System Sciences, 2021, 25, 3281-3299. | 1.9 | 18 |
| 88 | Climate Change Impact on the Hydrology of a Typical Watershed in the Tianshan Mountains. Advances in Meteorology, 2015, 2015, 1-10. | 0.6 | 17 |
| 89 | Contribution of meteorological input in calibrating a distributed hydrologic model in a watershed in the Tianshan Mountains, China. Environmental Earth Sciences, 2015, 74, 2413-2424. | 1.3 | 17 |
| 90 | Climate change in the Tianshan and northern Kunlun Mountains based on GCM simulation ensemble with Bayesian model averaging. Journal of Arid Land, 2017, 9, 622-634. | 0.9 | 17 |

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|---|---|---|---|
| 91 | Response of the accumulation of proline in the bodies of Populus euphratica to the change of groundwater level at the lower reaches of Tarim River. Science Bulletin, 2003, 48, 1995. | 1.7 | 17 |
| 92 | Improving streamflow and flood simulations in three headwater catchments of the Tarim River based on a coupled glacier-hydrological model. Journal of Hydrology, 2021, 603, 127048. | 2.3 | 17 |
| 93 | Hydrological Drought Risk Assessment Using a Multidimensional Copula Function Approach in Arid Inland Basins, China. Water (Switzerland), 2020, 12, 1888. | 1.2 | 16 |
| 94 | Continuous warming shift greening towards browning in the Southeast and Northwest High Mountain Asia. Scientific Reports, 2021, 11, 17920. | 1.6 | 16 |
| 95 | Influences of forest on MODIS snow cover mapping and snow variations in the Amur River basin in Northeast Asia during 2000â€“2014. Hydrological Processes, 2017, 31, 3225-3241. | 1.1 | 15 |
| 96 | Recent Oasis Dynamics and Ecological Security in the Tarim River Basin, Central Asia. Sustainability, 2022, 14, 3372. | 1.6 | 15 |
| 97 | Land Use Dynamic Changes in an Arid Inland River Basin Based on Multi-Scenario Simulation. Remote Sensing, 2022, 14, 2797. | 1.8 | 15 |
| 98 | Developing Daily Cloudâ€Free Snow Composite Products From MODIS and IMS for the Tienshan Mountains. Earth and Space Science, 2019, 6, 266-275. | 1.1 | 14 |
| 99 | Drought Risk Assessment in Central Asia Using a Probabilistic Copula Function Approach. Water (Switzerland), 2020, 12, 421. | 1.2 | 14 |
| 100 | Modeling streamflow driven by climate change in data-scarce mountainous basins. Science of the Total Environment, 2021, 790, 148256. | 3.9 | 14 |
| 101 | Evidence of elevation-dependent warming from the Chinese Tian Shan. Cryosphere, 2021, 15, 5765-5783. | 1.5 | 14 |
| 102 | Research Advances in Plant Physiology and Ecology of Desert Riparian Forests under Drought Stress. Forests, 2022, 13, 619. | 0.9 | 14 |
| 103 | Spatial distribution of the extreme hydrological events in Xinjiang, north-west of China. Natural Hazards, 2013, 67, 483-495. | 1.6 | 13 |
| 104 | Simulating the precipitation in the data-scarce Tianshan Mountains, Northwest China based on the Earth system data products. Arabian Journal of Geosciences, 2020, 13, 1. | 0.6 | 13 |
| 105 | Reconstructing high-resolution temperature for the past 40Âyears in the Tianshan Mountains, China based on the Earth system data products. Atmospheric Research, 2021, 253, 105493. | 1.8 | 13 |
| 106 | Prediction of water table depths under soil water-groundwater interaction and stream water conveyance. Science China Earth Sciences, 2011, 54, 420-430. | 2.3 | 12 |
| 107 | The threshold of soil moisture and salinity influencing the growth of Populus euphratica and Tamarix ramosissima in the extremely arid region. Environmental Earth Sciences, 2012, 66, 2519-2529. | 1.3 | 12 |
| 108 | Runoff response to the glacier shrinkage in the Karatal river basin, Kazakhstan. Arabian Journal of Geosciences, 2016, 9, 1. | 0.6 | 12 |

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|---|---|---|---|
| 109 | An approach to simulate the climate-driven streamflow in the data-scarce mountain basins of Northwest China. Journal of Earth System Science, 2019, 128, 1. | 0.6 | 12 |
| 110 | Response of Precipitation in Tianshan to Global Climate Change Based on the Berkeley Earth and ERA5 Reanalysis Products. Remote Sensing, 2022, 14, 519. | 1.8 | 12 |
| 111 | Analysis on the streamflow components of the typical inland river, Northwest China. Hydrological Sciences Journal, 2016, , 1-12. | 1.2 | 11 |
| 112 | Quantitative assessment of the ecological effects of land use/cover change in the arid region of Northwest China. Environmental Monitoring and Assessment, 2019, 191, 704. | 1.3 | 11 |
| 113 | Multi-Objective Calibration of a Distributed Hydrological Model in a Highly Glacierized Watershed in Central Asia. Water (Switzerland), 2019, 11, 554. | 1.2 | 10 |
| 114 | Nonlinear response of runoff to atmospheric freezing level height variation based on hybrid prediction models. Hydrological Sciences Journal, 2019, 64, 1556-1572. | 1.2 | 8 |
| 115 | Water use efficiency data from 2000 to 2019 in measuring progress towards SDGs in Central Asia. Big Earth Data, 2022, 6, 90-102. | 2.0 | 8 |
| 116 | Recent Changes in Glaciers in the Northern Tien Shan, Central Asia. Remote Sensing, 2022, 14, 2878. | 1.8 | 8 |
| 117 | Characteristics of Water Physiological Integration and its Ecological Significance for Populus euphratica Young Ramets in an Extremely Drought Environment. Journal of Geophysical Research D: Atmospheres, 2018, 123, 5657-5666. | 1.2 | 7 |
| 118 | Water Deficit May Cause Vegetation Browning in Central Asia. Remote Sensing, 2022, 14, 2574. | 1.8 | 7 |
| 119 | The arbuscular mycorrhizal symbiotic status of Populus euphratica, a drought resistant tree species from arid lands. Ecohydrology, 2013, 6, 1001-1008. | 1.1 | 6 |
| 120 | Hydrochemical characteristics and evolution of groundwater in the dried-up river oasis of the Tarim Basin, Central Asia. Journal of Arid Land, 2021, 13, 977-994. | 0.9 | 6 |
| 121 | Higher Sensitivity of Planted Forests' Productivity Than Natural Forests to Droughts in China. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006306. | 1.3 | 5 |
| 122 | Effects of climate change on major elements of the hydrological cycle in Aksu River basin, northwest China. International Journal of Climatology, 2022, 42, 5359-5372. | 1.5 | 5 |
| 123 | Quantifying the impact of mountain precipitation on runoff in Hotan River, northwestern China. Frontiers of Earth Science, 2020, 14, 568-577. | 0.9 | 4 |
| 124 | Identifying water vapor sources of precipitation in forest and grassland in the north slope of the Tianshan Mountains, Central Asia. Journal of Arid Land, 2022, 14, 297-309. | 0.9 | 4 |
| 125 | Simulating the climate driven runoff in data-scarce mountains by machine learning and downscaling reanalysis data. Stochastic Environmental Research and Risk Assessment, 2022, 36, 3819-3834. | 1.9 | 2 |
| 126 | Water and Ecological Security at the Heart of Chinaâ€™s Silk Road Economic Belt. , 2019, , 281-306. | | 1 |