Wilfried Brutsaert

List of Publications by Year
in descending order

104	11,145	44069	45317
papers	citations	48 h-index	90 g-index

106	106	106	6575
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Blending the Evaporation Precipitation Ratio With the Complementary Principle Function for the Prediction of Evaporation. Water Resources Research, 2021, 57, e2021WR029729.	4.2	14
2	Spatial Distribution of Global Landscape Evaporation in the Early Twenty-First Century by Means of a Generalized Complementary Approach. Journal of Hydrometeorology, 2020, 21, 287-298.	1.9	49
3	On the Use of the Term â€œEvapotranspirationâ€. Water Resources Research, 2020, 56, e2020WR028055.	4.2	51
4	Mutual Consistency of Groundwater Storage Changes Derived From GRACE and From Baseflow Recessions in the Central Yangtze River Basin. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031467.	3.3	11
5	Investigation of a Generalized Nonlinear Form of the Complementary Principle for Evaporation Estimation. Journal of Geophysical Research D: Atmospheres, 2018, 123, 3933-3942.	3.3	46
6	Estimation of land surface evaporation using a generalized nonlinear complementary relationship. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1475-1487.	3.3	56
7	Nonlinear advectionâ€aridity method for landscape evaporation and its application during the growing season in the southern <scp>L</scp>oess <scp>P</scp>lateau of the <scp>Y</scp>ellow <scp>R</scp>iver basin. Water Resources Research, 2017, 53, 270-282.	4.2	53
8	Saph and Schoder and the Friction Law of Blasius. Annual Review of Fluid Mechanics, 2017, 49, 575-582.	25.0	5
9	Global land surface evaporation trend during the past half century: Corroboration by Clausius-Clapeyron scaling. Advances in Water Resources, 2017, 106, 3-5.	3.8	24
10	Regional evaporation estimates in the eastern monsoon region of <scp>C</scp>hina: Assessment of a nonlinear formulation of the complementary principle. Water Resources Research, 2016, 52, 9511-9521.	4.2	60
11	Automated Selection of Pure Base Flows from Regular Daily Streamflow Data: Objective Algorithm. Journal of Hydrologic Engineering - ASCE, 2016, 21, .	1.9	40
12	A generalized complementary principle with physical constraints for landâ€surface evaporation. Water Resources Research, 2015, 51, 8087-8093.	4.2	150
13	Groundwater storage trends in the Loess Plateau of China estimated from streamflow records. Journal of Hydrology, 2015, 530, 281-290.	5.4	62
14	Daily evaporation from drying soil: Universal parameterization with similarity. Water Resources Research, 2014, 50, 3206-3215.	4.2	41
15	Long-term annual groundwater storage trends in Australian catchments. Advances in Water Resources, 2014, 74, 156-165.	3.8	41
16	The daily mean zeroâ€flux plane during soilâ€controlled evaporation: A <scp>G</scp>reen's function approach. Water Resources Research, 2014, 50, 9405-9413.	4.2	9
17	Use of pan evaporation to estimate terrestrial evaporation trends: The case of the Tibetan Plateau. Water Resources Research, 2013, 49, 3054-3058.	4.2	30
18	The determination of permafrost thawing trends from longâ€term streamflow measurements with an application in eastern Siberia. Journal of Geophysical Research, 2012, 117, .	3.3	49

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19	Are the North American deserts expanding? Some climate signals from groundwater storage conditions. Ecohydrology, 2012, 5, 541-549.	2.4	15
20	Analysis of time compression approximations. Water Resources Research, 2011, 47, .	4.2	8
21	Annual drought flow and groundwater storage trends in the eastern half of the United States during the past two-third century. Theoretical and Applied Climatology, 2010, 100, 93-103.	2.8	37
22	Recent Low-Flow and Groundwater Storage Changes in Upland Watersheds of the Kanto Region, Japan. Journal of Hydrologic Engineering - ASCE, 2009, 14, 280-285.	1.9	14
23	Estimation of urban sensible heat flux using a dense wireless network of observations. Environmental Fluid Mechanics, 2009, 9, 635-653.	1.6	47
24	Estimation of wet surface evaporation from sensible heat flux measurements. Water Resources Research, 2009, 45, .	4.2	29
25	Is Mongolia's groundwater increasing or decreasing? The case of the Kherlen River basin / Les eaux souterraines de Mongolie s'accroissent ou dÃ©croissent-elles? Cas du bassin versant la RiviÃ¨re Kherlen. Hydrological Sciences Journal, 2008, 53, 1221-1229.	2.6	41
26	Longâ€term groundwater storage trends estimated from streamflow records: Climatic perspective. Water Resources Research, 2008, 44, .	4.2	165
27	Complementary relationship between daily evaporation in the environment and pan evaporation. Water Resources Research, 2006, 42, .	4.2	135
28	Indications of increasing land surface evaporation during the second half of the 20th century. Geophysical Research Letters, 2006, 33, .	4.0	105
29	Flux-profile Relationships for Wind Speed and Temperature in the Stable Atmospheric Boundary Layer. Boundary-Layer Meteorology, 2005, 114, 519-538.	2.3	156
30	Pathology of Monin-Obukhov similarity in the stable boundary layer. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	47
31	Drying front in a sloping aquifer: Nonlinear effects. Water Resources Research, 2004, 40, .	4.2	24
32	Variability of surface soil moisture at the watershed scale. Water Resources Research, 2004, 40, .	4.2	29
33	Microscale structural aspects of vegetation density variability. Journal of Hydrology, 2003, 276, 128-136.	5.4	22
34	A concise parameterization of the hydraulic conductivity of unsaturated soils. Advances in Water Resources, 2000, 23, 811-815.	3.8	29
35	The Effect of Chessboard Variability of the Surface Fluxes on the Aggregated Turbulence Fields in a Convective Atmospheric Surface Layer. Boundary-Layer Meteorology, 1999, 91, 37-50.	2.3	20
36	Turbulence variance characteristics of temperature and humidity in the unstable atmospheric surface layer above a variable pine forest. Water Resources Research, 1999, 35, 515-521.	4.2	46

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37	Aspects of bulk atmospheric boundary layer similarity under free-convective conditions. Reviews of Geophysics, 1999, 37, 439-451.	23.0	143
38	Radiative Effects on Temperature in the Stable Surface Layer. Boundary-Layer Meteorology, 1998, 89, 141-159.	2.3	11
39	Hydrologic cycle explains the evaporation paradox. Nature, 1998, 396, 30-30.	27.8	525
40	Basin-scale geohydrologic drought flow features of riparian aquifers in the Southern Great Plains. Water Resources Research, 1998, 34, 233-240.	4.2	179
41	Land-surface water vapor and sensible heat flux: Spatial variability, homogeneity, and measurement scales. Water Resources Research, 1998, 34, 2433-2442.	4.2	92
42	Satellite-Sensed Distribution and Spatial Patterns of Vegetation Parameters over a Tallgrass Prairie. Journals of the Atmospheric Sciences, 1998, 55, 1225-1238.	1.7	88
43	Diurnal Variation of Surface Fluxes During Thorough Drying (or Severe Drought) of Natural Prairie. Water Resources Research, 1996, 32, 2013-2019.	4.2	48
44	Optimal Measurement Strategy for Surface Temperature to Determine Sensible Heat Flux From Anisothermal Vegetation. Water Resources Research, 1996, 32, 2129-2134.	4.2	42
45	Daytime evaporation and the self-preservation of the evaporative fraction and the Bowen ratio. Journal of Hydrology, 1996, 178, 241-255.	5.4	152
46	Effect of Vegetation Density on the Parameterization of Scalar Roughness to Estimate Spatially Distributed Sensible Heat Fluxes. Water Resources Research, 1996, 32, 645-652.	4.2	92
47	Similarity of scalars under stable conditions. Boundary-Layer Meteorology, 1996, 80, 355-373.	2.3	47
48	Z-Less stratification under stable conditions. Boundary-Layer Meteorology, 1995, 75, 175-187.	2.3	36
49	Diagnostics of land surface spatial variability and water vapor flux. Journal of Geophysical Research, 1995, 100, 25595.	3.3	35
50	Desorption and the two Stages of Drying of Natural Tallgrass Prairie. Water Resources Research, 1995, 31, 1305-1313.	4.2	100
51	The unit response of groundwater outflow from a hillslope. Water Resources Research, 1994, 30, 2759-2763.	4.2	180
52	Regional shear stress of broken forest from radiosonde wind profiles in the unstable surface layer. Boundary-Layer Meteorology, 1993, 64, 355-368.	2.3	49
53	Effective water table depth to describe initial conditions prior to storm rainfall in humid regions. Water Resources Research, 1993, 29, 427-434.	4.2	200
54	Cloud effect in the estimation of instantaneous downward longwave radiation. Water Resources Research, 1993, 29, 599-605.	4.2	83

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55	Comparison of land surface temperatures derived from satellite observations with ground truth during FIFE. International Journal of Remote Sensing, 1993, 14, 1659-1676.	2.9	45
56	Parameterization of Surface Heat Fluxes above Forest with Satellite Thermal Sensing and Boundary-Layer Soundings. Journal of Applied Meteorology and Climatology, 1993, 32, 909-917.	1.7	68
57	A comparison of several evaporation equations. Water Resources Research, 1992, 28, 951-954.	4.2	72
58	Stability correction functions for the mean wind speed and temperature in the unstable surface layer. Geophysical Research Letters, 1992, 19, 469-472.	4.0	84
59	Application of selfâ€preservation in the diurnal evolution of the surface energy budget to determine daily evaporation. Journal of Geophysical Research, 1992, 97, 18377-18382.	3.3	219
60	Regional surface fluxes under nonuniform soil moisture conditions during drying. Water Resources Research, 1992, 28, 1669-1674.	4.2	27
61	The unstable surface layer above forest: Regional evaporation and heat flux. Water Resources Research, 1992, 28, 3129-3134.	4.2	52
62	Regional surface fluxes from satellite-derived surface temperatures (AVHRR) and radiosonde profiles. Boundary-Layer Meteorology, 1992, 58, 355-366.	2.3	55
63	The stability functions in the bulk similarity formulation for the unstable boundary layer. Boundary-Layer Meteorology, 1992, 61, 65-80.	2.3	32
64	Daily evaporation over a region from lower boundary layer profiles measured with radiosondes. Water Resources Research, 1991, 27, 747-752.	4.2	148
65	A bulk similarity approach in the atmospheric boundary layer using radiometric skin temperature to determine regional surface fluxes. Boundary-Layer Meteorology, 1991, 55, 1-23.	2.3	34
66	The extent of the unstable Monin-Obukhov layer for temperature and humidity above complex hilly grassland. Boundary-Layer Meteorology, 1990, 51, 383-400.	2.3	47
67	Inner Region Humidity Characteristics of the Neutral Boundary Layer Over Prairie Terrain. Water Resources Research, 1990, 26, 2931-2936.	4.2	17
68	Regional Surface Fluxes From Remotely Sensed Skin Temperature and Lower Boundary Layer Measurements. Water Resources Research, 1990, 26, 2937-2944.	4.2	104
69	Regional surface fluxes from remotely sensed skin temperature and lower boundary layer measurements. Water Resources Research, 1990, 26, 2937-2944.	4.2	17
70	Regional roughness of the landes forest and surface shear stress under neutral conditions. Boundary-Layer Meteorology, 1989, 48, 69-81.	2.3	65
71	The influence of basin morphology on groundwater outflow. Water Resources Research, 1988, 24, 1645-1650.	4.2	57
72	Recession characteristics of groundwater outflow and base flow from mountainous watersheds. Water Resources Research, 1988, 24, 1651-1658.	4.2	131

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73	A capillarity correction for free surface flow of groundwater. Water Resources Research, 1987, 23, 805-808.	4.2	71
74	Catchmentâ€scale evaporation and the atmospheric boundary layer. Water Resources Research, 1986, 22, 39S.	4.2	56
75	Wind profile constants in a neutral atmospheric boundary layer over complex terrain. Boundary-Layer Meteorology, 1986, 34, 35-54.	2.3	61
76	Applicability of Effective Parameters for Unsteady Flow in Nonuniform Aquifers. Water Resources Research, 1985, 21, 183-198.	4.2	35
77	Hydrological and meteorological experimentation at the mesoscale. Eos, 1985, 66, 601.	0.1	6
78	Measurement of groundwater recharge on eastern Long Island, New York, U.S.A.. Journal of Hydrology, 1985, 79, 145-169.	5.4	47
79	Some exact solutions for nonlinear desorptive diffusion. Zeitschrift Fur Angewandte Mathematik Und Physik, 1982, 33, 540-546.	1.4	25
80	Evaporation into the Atmosphere. , 1982, , .		1,823
81	Heat and Mass Transfer to and from Surfaces with Dense Vegetation or Similar Permeable Roughness. Boundary-Layer Meteorology, 1979, 16, 365-388.	2.3	44
82	An advectionâ€aridity approach to estimate actual regional evapotranspiration. Water Resources Research, 1979, 15, 443-450.	4.2	491
83	Universal constants for scaling the exponential soil water diffusivity?. Water Resources Research, 1979, 15, 481-483.	4.2	42
84	A nonlinear analysis of the relationship between rainfall and runoff for extreme floods. Water Resources Research, 1978, 14, 75-83.	4.2	20
85	Actual evapotranspiration over a summer period in the â€œHupsel catchmentâ€• Journal of Hydrology, 1978, 39, 139-157.	5.4	35
86	Vertical infiltration in dry soil. Water Resources Research, 1977, 13, 363-368.	4.2	53
87	Viscoelastic aquifer model applied to subsidence due to pumping. Water Resources Research, 1977, 13, 597-604.	4.2	31
88	Regionalized drought flow hydrographs from a mature glaciated plateau. Water Resources Research, 1977, 13, 637-643.	4.2	560
89	The applicability of planetary boundary layer theory to calculate regional evapotranspiration. Water Resources Research, 1976, 12, 852-858.	4.2	26
90	The concise formulation of diffusive sorption of water in a dry soil. Water Resources Research, 1976, 12, 1118-1124.	4.2	66

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91	The Roughness Length for Water Vapor Sensible Heat, and Other Scalars. Journals of the Atmospheric Sciences, 1975, 32, 2028-2031.	1.7	154
92	Comments on Surface Roughness Parameters and the Height of Dense Vegetation. Journal of the Meteorological Society of Japan, 1975, 53, 96-98.	1.8	45
93	A theory for local evaporation (or heat transfer) from rough and smooth surfaces at ground level. Water Resources Research, 1975, 11, 543-550.	4.2	213
94	On a derivable formula for longâ€wave radiation from clear skies. Water Resources Research, 1975, 11, 742-744.	4.2	785
95	Evaporation and cooling of a lake under unstable atmospheric conditions. Water Resources Research, 1973, 9, 1242-1257.	4.2	57
96	Implications of a Type of Empirical Evaporation Formula for Lakes and Pans. Water Resources Research, 1970, 6, 1202-1208.	4.2	39
97	The Adaptability of an Exact Solution to Horizontal Infiltration. Water Resources Research, 1968, 4, 785-789.	4.2	23
98	PROBABILITY LAWS FOR PORE-SIZE DISTRIBUTIONS. Soil Science, 1966, 101, 85-92.	0.9	228
99	A model for evaporation as a molecular diffusion process into a turbulent atmosphere. Journal of Geophysical Research, 1965, 70, 5017-5024.	3.3	41
100	Evaluation of some practical methods of estimating evapotranspiration in arid climates at low latitudes. Water Resources Research, 1965, 1, 187-191.	4.2	21
101	Inflow Hydrographs from Large Unconfined Aquifers. Journal of the Irrigation and Drainage Division, ASCE, 105 (IR4), Proc Paper, 1965, 91, 21-38.	0.3	34
102	The propagation of elastic waves in unconsolidated unsaturated granular mediums. Journal of Geophysical Research, 1964, 69, 243-257.	3.3	136
103	The velocity of sound in soils near the surface as a function of the moisture content. Journal of Geophysical Research, 1964, 69, 643-652.	3.3	53
104	Parameterization of Surface Heat Fluxes Above a Forest with Satellite Thermal Sensing. , 0, , .		0