Jozsef Szilagyi

List of Publications by Year
in descending order

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101	3,136	147801	175258
papers	citations	31 h-index	52 g-index

106	106	106	2266
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Complementary Relationship for evaporation performance at different spatial and temporal scales. Journal of Hydrology, 2022, 608, 127575.	5.4	12
2	Comment on: â€œA review of the complementary principle of evaporation: from the original linear relationship to generalized nonlinear functionsâ€•by Han and Tian (2020). Hydrology and Earth System Sciences, 2021, 25, 63-68.	4.9	3
3	On the thermodynamic foundations of the complementary relationship of evaporation. Journal of Hydrology, 2021, 593, 125916.	5.4	16
4	Reply to Comment by S. Han and F. Tian on â€œA Calibrationâ€Free Formulation of the Complementary Relationship of Evaporation for Continentalâ€Scale Hydrologyâ€• Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034685.	3.3	1
5	Calibrationâ€Free Complementary Relationship Estimates Terrestrial Evapotranspiration Globally. Water Resources Research, 2021, 57, e2021WR029691.	4.2	89
6	Dynamic Scaling of the Generalized Complementary Relationship Improves Long-term Tendency Estimates in Land Evaporation. Advances in Atmospheric Sciences, 2020, 37, 975-986.	4.3	11
7	Reply to â€œComment on â€˜Two Papers About the Generalized Complementary Evaporation Relationships by Crago et al.â€™â€• Water Resources Research, 2020, 56, e2019WR026773.	4.2	3
8	Anthropogenic hydrometeorological changes at a regional scale: observed irrigationâ€“precipitation feedback (1979â€“2015) in Nebraska, USA. Sustainable Water Resources Management, 2020, 6, 1.	2.1	16
9	Water Balance Backward: Estimation of Annual Watershed Precipitation and Its Long-Term Trend with the Help of the Calibration-Free Generalized Complementary Relationship of Evaporation. Water (Switzerland), 2020, 12, 1775.	2.7	4
10	Benchmarking large-scale evapotranspiration estimates: A perspective from a calibration-free complementary relationship approach and FLUXCOM. Journal of Hydrology, 2020, 590, 125221.	5.4	27
11	The CR of Evaporation: A Calibrationâ€Free Diagnostic and Benchmarking Tool for Largeâ€Scale Terrestrial Evapotranspiration Modeling. Water Resources Research, 2019, 55, 7246-7274.	4.2	78
12	On the specific water holding capacity of litter for three forest ecosystems in the eastern foothills of the Alps. Agricultural and Forest Meteorology, 2019, 278, 107656.	4.8	43
13	Comment on â€œDerivation of a Sigmoid Generalized Complementary Function for Evaporation With Physical Constraintsâ€•by S. Han and F. Tian. Water Resources Research, 2019, 55, 868-869.	4.2	10
14	Complementaryâ€Relationshipâ€Based Modeling of Terrestrial Evapotranspiration Across China During 1982â€“2012: Validations and Spatiotemporal Analyses. Journal of Geophysical Research D: Atmospheres, 2019, 124, 4326-4351.	3.3	175
15	Comment on â€œA hybrid approach combining the FAO-56 method and the complementary principle for predicting daily evapotranspiration on a rainfed crop fieldâ€™ by D. Kim et al.. Journal of Hydrology, 2019, 578, 124031.	5.4	4
16	Anthropogenic hydrological cycle disturbance at a regional scale: State-wide evapotranspiration trends (1979â€“2015) across Nebraska, USA. Journal of Hydrology, 2018, 557, 600-612.	5.4	21
17	A calibration-free, robust estimation of monthly land surface evapotranspiration rates for continental-scale hydrology. Hydrology Research, 2018, 49, 648-657.	2.7	25
18	Evapotranspiration Trends (1979â€“2015) in the Central Valley of California, USA: Contrasting Tendencies During 1981â€“2007. Water Resources Research, 2018, 54, 5620-5635.	4.2	24

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19	A calibrationâ€free formulation of the complementary relationship of evaporation for continentalâ€scale hydrology. Journal of Geophysical Research D: Atmospheres, 2017, 122, 264-278.	3.3	88
20	Reply to comment by Ma and Zhang on â€œRescaling the complementary relationship for land surface evaporationâ€. Water Resources Research, 2017, 53, 6343-6344.	4.2	5
21	Testing the generalized complementary relationship of evaporation with continental-scale long-term water-balance data. Journal of Hydrology, 2016, 540, 914-922.	5.4	28
22	Rescaling the complementary relationship for land surface evaporation. Water Resources Research, 2016, 52, 8461-8471.	4.2	61
23	Feasibility analysis of using inverse modeling for estimating natural groundwater recharge from a large-scale soil moisture monitoring network. Journal of Hydrology, 2016, 533, 250-265.	5.4	44
24	Evaporation variability of Nam Co Lake in the Tibetan Plateau and its role in recent rapid lake expansion. Journal of Hydrology, 2016, 537, 27-35.	5.4	102
25	Complementaryâ€relationshipâ€based 30 year normals (1981â€“2010) of monthly latent heat fluxes across the contiguous <scp>U</scp>nited <scp>S</scp>tates. Water Resources Research, 2015, 51, 9367-9377.	4.2	25
26	Modeling actual evapotranspiration with routine meteorological variables in the dataâ€scarce region of the Tibetan Plateau: Comparisons and implications. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1638-1657.	3.0	58
27	Evaluating the complementary relationship of evapotranspiration in the alpine steppe of the <scp>T</scp>ibetan <scp>P</scp>lateau. Water Resources Research, 2015, 51, 1069-1083.	4.2	67
28	Testing the Rationale behind an Assumed Linear Relationship between Evapotranspiration and Land Surface Temperature. Journal of Hydrologic Engineering - ASCE, 2015, 20, 04014073.	1.9	0
29	Coupled heat and vapor transport: The thermostat effect of a freely evaporating land surface. Geophysical Research Letters, 2014, 41, 435-441.	4.0	27
30	Modis-Aided Water-Balance Investigations in the Republican River Basin, USA. Periodica Polytechnica: Civil Engineering, 2014, 58, 33.	0.6	6
31	Vadose zone lag time and potential 21st century climate change effects on spatially distributed groundwater recharge in the semi-arid Nebraska Sand Hills. Journal of Hydrology, 2014, 519, 656-669.	5.4	45
32	Temperature corrections in the Priestleyâ€“Taylor equation of evaporation. Journal of Hydrology, 2014, 519, 455-464.	5.4	50
33	Accounting for Backwater Effects in Flow Routing by the Discrete Linear Cascade Model. Journal of Hydrologic Engineering - ASCE, 2014, 19, 69-77.	1.9	11
34	Lithologic influences on groundwater recharge through incised glacial till from profile to regional scales: Evidence from glaciated Eastern Nebraska. Water Resources Research, 2014, 50, 466-481.	4.2	14
35	Net Recharge vs. Depth to Groundwater Relationship in the Platte River Valley of Nebraska, United States. Ground Water, 2013, 51, 945-951.	1.3	35
36	Does the accuracy of fine-scale water level measurements by vented pressure transducers permit for diurnal evapotranspiration estimation?. Journal of Hydrology, 2013, 488, 166-169.	5.4	21

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37	MODISâ€Aided Statewide Net Groundwaterâ€Recharge Estimation in Nebraska. Ground Water, 2013, 51, 735-744.	1.3	31
38	Comment on the application of the Szilagyiâ€“Jozsa advectionâ€“aridity model for estimating actual terrestrial evapotranspiration in "Estimating actual, potential, reference crop and pan evaporation using standard meteorological data: a pragmatic synthesis" by McMahon et al. (2013). Hydrology and Earth System Sciences, 2013, 17, 4865-4867.	4.9	6
39	Application of MODIS-Based Monthly Evapotranspiration Rates in Runoff Modeling: A Case Study in Nebraska,USA. Open Journal of Modern Hydrology, 2013, 03, 172-178.	1.0	4
40	Remote-Sensing Based Groundwater Recharge Estimates in the Danube-Tisza Sand Plateau Region of Hungary. Journal of Hydrology and Hydromechanics, 2012, 60, 64-72.	2.0	22
41	Comment on â€œAssessing interannual variability of evapotranspiration at the catchment scale using satelliteâ€based evapotranspiration data setsâ€•by Lei Cheng et al.. Water Resources Research, 2012, 48, .	4.2	1
42	Evaluating the complementary relationship for estimating evapotranspiration from arid shrublands. Water Resources Research, 2011, 47, .	4.2	73
43	Comment on â€œInterference of river level changes on riparian zone evapotranspiration estimates from diurnal groundwater level fluctuationsâ€•by J. Zhu, M. Young, J. Healy, R. Jasoni, J. Osterberg [J. Hydrol. 403(3â€“4) (2011) 381â€“389]. Journal of Hydrology, 2011, 409, 578-579.	5.4	1
44	Mapping mean annual groundwater recharge in the Nebraska Sand Hills, USA. Hydrogeology Journal, 2011, 19, 1503-1513.	2.1	63
45	A calibration-free evapotranspiration mapping technique for spatially-distributed regional-scale hydrologic modeling. Journal of Hydrology and Hydromechanics, 2011, 59, 118-130.	2.0	11
46	Diurnal fluctuations in shallow groundwater levels and streamflow rates and their interpretation â€“ A review. Journal of Hydrology, 2010, 385, 371-383.	5.4	229
47	Complementary-relationship-based evapotranspiration mapping (cremap) technique for Hungary. Periodica Polytechnica: Civil Engineering, 2010, 54, 95.	0.6	14
48	Discussion of â€œEstimation of the Water Balance Using Observed Soil Water in the Nebraska Sandhillsâ€• by V. Sridhar and K. G. Hubbard. Journal of Hydrologic Engineering - ASCE, 2010, 15, 1075-1075.	1.9	2
49	Modified Advection-Aridity Model of Evapotranspiration. Journal of Hydrologic Engineering - ASCE, 2009, 14, 569-574.	1.9	38
50	Analytical solution of the coupled 2-D turbulent heat and vapor transport equations and the complementary relationship of evaporation. Journal of Hydrology, 2009, 372, 61-67.	5.4	22
51	Complementary relationship of evaporation and the mean annual waterâ€•energy balance. Water Resources Research, 2009, 45, .	4.2	24
52	Comment on â€œPower law catchmentâ€•scale recessions arising from heterogeneous linear smallâ€•scale dynamicsâ€•by C. J. Harman, M. Sivapalan, and P. Kumar. Water Resources Research, 2009, 45, .	4.2	7
53	An evaporation estimation method based on the coupled 2â€D turbulent heat and vapor transport equations. Journal of Geophysical Research, 2009, 114, .	3.3	10
54	Estimating spatially distributed monthly evapotranspiration rates by linear transformations of MODIS daytime land surface temperature data. Hydrology and Earth System Sciences, 2009, 13, 629-637.	4.9	9

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55	On diurnal riparian zone groundwater-level and streamflow fluctuations. Journal of Hydrology, 2008, 349, 1-5.	5.4	31
56	Comment on â€œComparison of 15 evaporation models applied to a small mountain lake in the northeastern USAâ€•by D.O. Rosenberry, T.C. Winter, D.C. Buso, and G.E. Likens [J. Hydrol. 340 (3â€“4) (2007) 149â€“166]. Journal of Hydrology, 2008, 348, 564-565.	5.4	3
57	Riparian zone evapotranspiration estimation from diurnal groundwater level fluctuations. Journal of Hydrology, 2008, 349, 6-17.	5.4	127
58	New findings about the complementary relationship-based evaporation estimation methods. Journal of Hydrology, 2008, 354, 171-186.	5.4	91
59	Application of a Routing Model for Detecting Channel Flow Changes with Minimal Data. Journal of Hydrologic Engineering - ASCE, 2008, 13, 521-526.	1.9	4
60	Hungarian national report on IAHS 2003â€“2006. Acta Geodaetica Et Geophysica Hungarica, 2007, 42, 227-233.	0.4	0
61	Estimation of catchment-scale evapotranspiration from baseflow recession data: Numerical model and practical application results. Journal of Hydrology, 2007, 336, 206-217.	5.4	62
62	Analysis of the nonlinearity in the hillslope runoff response to precipitation through numerical modeling. Journal of Hydrology, 2007, 337, 391-401.	5.4	10
63	On the inherent asymmetric nature of the complementary relationship of evaporation. Geophysical Research Letters, 2007, 34, .	4.0	82
64	Assessing streamâ€“aquifer interactions through inverse modeling of flow routing. Journal of Hydrology, 2006, 327, 208-218.	5.4	5
65	Discrete state-space approximation of the continuous Kalininâ€“Milyukovâ€“Nash cascade of noninteger storage elements. Journal of Hydrology, 2006, 328, 132-140.	5.4	9
66	Comment on â€œUsing numerical modelling to evaluate the capillary fringe groundwater ridging hypothesis of streamflow generationâ€•by H. L. Cloke, et al. [J. Hydrol. 316 (2006) 141â€“162]. Journal of Hydrology, 2006, 329, 724-729.	5.4	4
67	Comment on â€˜Evaluation of the impact of groundwater irrigation on streamflow in Nebraskaâ€™ by Fujian Wen and Xunhong Chen. Journal of Hydrology, 2006, 331, 605.	5.4	0
68	Hybrid, Markov Chain-Based Model for Daily Streamflow Generation at Multiple Catchment Sites. Journal of Hydrologic Engineering - ASCE, 2006, 11, 245-256.	1.9	29
69	Regional Estimation of Total Recharge to Ground Water in Nebraska. Ground Water, 2005, 43, 63-69.	1.3	39
70	Flow routing with unknown rating curves using a state-space reservoir-cascade-type formulation. Journal of Hydrology, 2005, 311, 219-229.	5.4	8
71	Accounting for Streamâ€“Aquifer Interactions in the State-Space Discretization of the Kalininâ€“Milyukovâ€“Nash Cascade for Streamflow Forecasting. Journal of Hydrologic Engineering - ASCE, 2004, 9, 135-143.	1.9	7
72	Heuristic Continuous Base Flow Separation. Journal of Hydrologic Engineering - ASCE, 2004, 9, 311-318.	1.9	27

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73	Vadose zone influences on aquifer parameter estimates of saturated-zone hydraulic theory. Journal of Hydrology, 2004, 286, 78-86.	5.4	15
74	Comment on â€œA reappraisal of the Kalman filtering technique, as applied in river flow forecastingâ€•by Ashan, M., O'Connor, K.M., 1994. Journal of Hydrology 161, 197â€“226. Journal of Hydrology, 2004, 285, 286-289.	5.4	4
75	Regional Estimation of Base Recharge to Ground Water Using Water Balance and a Base-Flow Index. Ground Water, 2003, 41, 504-513.	1.3	67
76	Sensitivity analysis of aquifer parameter estimations based on the Laplace equation with linearized boundary conditions. Water Resources Research, 2003, 39, .	4.2	15
77	State-Space Discretization of the Kalinin-Milyukov-Nash-Cascade in a Sample-Data System Framework for Streamflow Forecasting. Journal of Hydrologic Engineering - ASCE, 2003, 8, 339-347.	1.9	15
78	Sensitivity of Watershed Runoff under Humid Conditions to Potential Climate Variations. Journal of Environmental Engineering, ASCE, 2002, 128, 635-642.	1.4	5
79	Vegetation Indices to Aid Areal Evapotranspiration Estimations. Journal of Hydrologic Engineering - ASCE, 2002, 7, 368-372.	1.9	17
80	Comment on â€œThe hydrology and hydrometeorology of extreme floods in the Great Plains of Eastern Nebraskaâ€•by Y. Zhang, J.A. Smith and M.L. Baeck. Advances in Water Resources, 2002, 25, 701-702.	3.8	1
81	Sudden drawdown and drainage of a horizontal aquifer. Water Resources Research, 2001, 37, 2097-2101.	4.2	64
82	On Bouchet's complementary hypothesis. Journal of Hydrology, 2001, 246, 155-158.	5.4	42
83	Modeled Areal Evaporation Trends over the Conterminous United States. Journal of Irrigation and Drainage Engineering - ASCE, 2001, 127, 196-200.	1.0	28
84	Evapotranspiration Intensifies over the Conterminous United States. Journal of Water Resources Planning and Management - ASCE, 2001, 127, 354-362.	2.6	51
85	Identifying Cause of Declining Flows in the Republican River. Journal of Water Resources Planning and Management - ASCE, 2001, 127, 244-253.	2.6	34
86	Can a vegetation index derived from remote sensing be indicative of areal transpiration?. Ecological Modelling, 2000, 127, 65-79.	2.5	23
87	An objective method for determining principal time scales of coherent eddy structures using orthonormal wavelets. Advances in Water Resources, 1999, 22, 561-566.	3.8	29
88	A geomorphology-based semi-distributed watershed model. Advances in Water Resources, 1999, 23, 177-187.	3.8	28
89	DEFINING WATERSHED-SCALE EVAPORATION USING A NORMALIZED DIFFERENCE VEGETATION INDEX. Journal of the American Water Resources Association, 1999, 35, 1245-1255.	2.4	7
90	On the Use of Semi-Logarithmic Plots for Baseflow Separation. Ground Water, 1999, 37, 660-662.	1.3	20

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91	Baseflow separation based on analytical solutions of the Boussinesq equation. Journal of Hydrology, 1998, 204, 251-260.	5.4	100
92	NDVI relationship to monthly evaporation. Geophysical Research Letters, 1998, 25, 1753-1756.	4.0	38
93	Recession flow analysis for aquifer parameter determination. Water Resources Research, 1998, 34, 1851-1857.	4.2	94
94	The local effect of intermittency on the inertial subrange energy spectrum of the atmospheric surface layer. Boundary-Layer Meteorology, 1996, 79, 35-50.	2.3	25
95	Why can the weighting parameter of the Muskingum channel routing method be negative?. Journal of Hydrology, 1992, 138, 145-151.	5.4	5
96	A Calibration-Free Evapotranspiration Mapping (CREMAP) Technique. , 0, , .		14
97	Recent Updates of the Calibration-Free Evapotranspiration Mapping (CREMAP) Method. , 0, , .		6
98	On the Clark Unit Hydrograph Model of HEC-HMS. Periodica Polytechnica: Civil Engineering, 0, , .	0.6	0
99	Recursive Streamflow Forecasting. , 0, , .		4
100	Streamflow Depletion Investigations in the Republican River Basin: Colorado, Nebraska, and Kansas. Journal of Environmental Systems, 0, 27, 251-263.	1.0	27
101	Comment on: A review of the complementary principle of evaporation: From the original linear relationship to generalized nonlinear functions by S. Han and F. Tian. , 0, , .		0