

Jozsef Szilagyi

List of Publications by Year in descending order

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Version: 2024-02-01

101
papers

3,136
citations

168829

31
h-index

198040

52
g-index

106
all docs

106
docs citations

106
times ranked

2577
citing authors

#	ARTICLE	IF	CITATIONS
1	Complementary Relationship for evaporation performance at different spatial and temporal scales. <i>Journal of Hydrology</i> , 2022, 608, 127575.	2.3	12
2	Comment on: "A review of the complementary principle of evaporation: from the original linear relationship to generalized nonlinear functions" by Han and Tian (2020). <i>Hydrology and Earth System Sciences</i> , 2021, 25, 63-68.	1.9	3
3	On the thermodynamic foundations of the complementary relationship of evaporation. <i>Journal of Hydrology</i> , 2021, 593, 125916.	2.3	16
4	Reply to Comment by S. Han and F. Tian on "A Calibration-Free Formulation of the Complementary Relationship of Evaporation for Continental-Scale Hydrology". <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034685.	1.2	1
5	Calibration-Free Complementary Relationship Estimates Terrestrial Evapotranspiration Globally. <i>Water Resources Research</i> , 2021, 57, e2021WR029691.	1.7	89
6	Dynamic Scaling of the Generalized Complementary Relationship Improves Long-term Tendency Estimates in Land Evaporation. <i>Advances in Atmospheric Sciences</i> , 2020, 37, 975-986.	1.9	11
7	Reply to "Comment on 'Two Papers About the Generalized Complementary Evaporation Relationships by Crago et al.'" by Water Resources Research, 2020, 56, e2019WR026773.	1.7	3
8	Anthropogenic hydrometeorological changes at a regional scale: observed irrigation-precipitation feedback (1979-2015) in Nebraska, USA. <i>Sustainable Water Resources Management</i> , 2020, 6, 1.	1.0	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. <i>Water (Switzerland)</i> , 2020, 12, 1775.	1.2	4
10	Benchmarking large-scale evapotranspiration estimates: A perspective from a calibration-free complementary relationship approach and FLUXCOM. <i>Journal of Hydrology</i> , 2020, 590, 125221.	2.3	27
11	The CR of Evaporation: A Calibration-Free Diagnostic and Benchmarking Tool for Large-Scale Terrestrial Evapotranspiration Modeling. <i>Water Resources Research</i> , 2019, 55, 7246-7274.	1.7	78
12	On the specific water holding capacity of litter for three forest ecosystems in the eastern foothills of the Alps. <i>Agricultural and Forest Meteorology</i> , 2019, 278, 107656.	1.9	43
13	Comment on "Derivation of a Sigmoid Generalized Complementary Function for Evaporation With Physical Constraints" by S. Han and F. Tian. <i>Water Resources Research</i> , 2019, 55, 868-869.	1.7	10
14	Complementary-Relationship-Based Modeling of Terrestrial Evapotranspiration Across China During 1982-2012: Validations and Spatiotemporal Analyses. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 4326-4351.	1.2	175
15	Comment on "A hybrid approach combining the FAO-56 method and the complementary principle for predicting daily evapotranspiration on a rainfed crop field" by D. Kim et al.. <i>Journal of Hydrology</i> , 2019, 578, 124031.	2.3	4
16	Anthropogenic hydrological cycle disturbance at a regional scale: State-wide evapotranspiration trends (1979-2015) across Nebraska, USA. <i>Journal of Hydrology</i> , 2018, 557, 600-612.	2.3	21
17	A calibration-free, robust estimation of monthly land surface evapotranspiration rates for continental-scale hydrology. <i>Hydrology Research</i> , 2018, 49, 648-657.	1.1	25
18	Evapotranspiration Trends (1979-2015) in the Central Valley of California, USA: Contrasting Tendencies During 1981-2007. <i>Water Resources Research</i> , 2018, 54, 5620-5635.	1.7	24

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19	A calibration-free formulation of the complementary relationship of evaporation for continental-scale hydrology. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 264-278.	1.2	88
20	Reply to comment by Ma and Zhang on "Rescaling the complementary relationship for land surface evaporation". <i>Water Resources Research</i> , 2017, 53, 6343-6344.	1.7	5
21	Testing the generalized complementary relationship of evaporation with continental-scale long-term water-balance data. <i>Journal of Hydrology</i> , 2016, 540, 914-922.	2.3	28
22	Rescaling the complementary relationship for land surface evaporation. <i>Water Resources Research</i> , 2016, 52, 8461-8471.	1.7	61
23	Feasibility analysis of using inverse modeling for estimating natural groundwater recharge from a large-scale soil moisture monitoring network. <i>Journal of Hydrology</i> , 2016, 533, 250-265.	2.3	44
24	Evaporation variability of Nam Co Lake in the Tibetan Plateau and its role in recent rapid lake expansion. <i>Journal of Hydrology</i> , 2016, 537, 27-35.	2.3	102
25	Complementary relationship-based 30 year normals (1981-2010) of monthly latent heat fluxes across the contiguous United States. <i>Water Resources Research</i> , 2015, 51, 9367-9377.	1.7	25
26	Modeling actual evapotranspiration with routine meteorological variables in the data-scarce region of the Tibetan Plateau: Comparisons and implications. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 1638-1657.	1.3	58
27	Evaluating the complementary relationship of evapotranspiration in the alpine steppe of the Tibetan Plateau. <i>Water Resources Research</i> , 2015, 51, 1069-1083.	1.7	67
28	Testing the Rationale behind an Assumed Linear Relationship between Evapotranspiration and Land Surface Temperature. <i>Journal of Hydrologic Engineering - ASCE</i> , 2015, 20, 04014073.	0.8	0
29	Coupled heat and vapor transport: The thermostat effect of a freely evaporating land surface. <i>Geophysical Research Letters</i> , 2014, 41, 435-441.	1.5	27
30	Modis-Aided Water-Balance Investigations in the Republican River Basin, USA. <i>Periodica Polytechnica: Civil Engineering</i> , 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. <i>Journal of Hydrology</i> , 2014, 519, 656-669.	2.3	45
32	Temperature corrections in the Priestley-Taylor equation of evaporation. <i>Journal of Hydrology</i> , 2014, 519, 455-464.	2.3	50
33	Accounting for Backwater Effects in Flow Routing by the Discrete Linear Cascade Model. <i>Journal of Hydrologic Engineering - ASCE</i> , 2014, 19, 69-77.	0.8	11
34	Lithologic influences on groundwater recharge through incised glacial till from profile to regional scales: Evidence from glaciated Eastern Nebraska. <i>Water Resources Research</i> , 2014, 50, 466-481.	1.7	14
35	Net Recharge vs. Depth to Groundwater Relationship in the Platte River Valley of Nebraska, United States. <i>Ground Water</i> , 2013, 51, 945-951.	0.7	35
36	Does the accuracy of fine-scale water level measurements by vented pressure transducers permit for diurnal evapotranspiration estimation?. <i>Journal of Hydrology</i> , 2013, 488, 166-169.	2.3	21

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37	MODIS-Aided Statewide Net Groundwater Recharge Estimation in Nebraska. <i>Ground Water</i> , 2013, 51, 735-744.	0.7	31
38	Comment on the application of the Szilagyi-Jozsa advection-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). <i>Hydrology and Earth System Sciences</i> , 2013, 17, 4865-4867.	1.9	6
39	Application of MODIS-Based Monthly Evapotranspiration Rates in Runoff Modeling: A Case Study in Nebraska,USA. <i>Open Journal of Modern Hydrology</i> , 2013, 03, 172-178.	0.4	4
40	Remote-Sensing Based Groundwater Recharge Estimates in the Danube-Tisza Sand Plateau Region of Hungary. <i>Journal of Hydrology and Hydromechanics</i> , 2012, 60, 64-72.	0.7	22
41	Comment on "Assessing interannual variability of evapotranspiration at the catchment scale using satellite-based evapotranspiration data sets" by Lei Cheng et al.. <i>Water Resources Research</i> , 2012, 48, .	1.7	1
42	Evaluating the complementary relationship for estimating evapotranspiration from arid shrublands. <i>Water Resources Research</i> , 2011, 47, .	1.7	73
43	Comment on "Interference of river level changes on riparian zone evapotranspiration estimates from diurnal groundwater level fluctuations" by J. Zhu, M. Young, J. Healy, R. Jasoni, J. Osterberg [J. Hydrol. 403(3"4) (2011) 381"389]. <i>Journal of Hydrology</i> , 2011, 409, 578-579.	2.3	1
44	Mapping mean annual groundwater recharge in the Nebraska Sand Hills, USA. <i>Hydrogeology Journal</i> , 2011, 19, 1503-1513.	0.9	63
45	A calibration-free evapotranspiration mapping technique for spatially-distributed regional-scale hydrologic modeling. <i>Journal of Hydrology and Hydromechanics</i> , 2011, 59, 118-130.	0.7	11
46	Diurnal fluctuations in shallow groundwater levels and streamflow rates and their interpretation " A review. <i>Journal of Hydrology</i> , 2010, 385, 371-383.	2.3	229
47	Complementary-relationship-based evapotranspiration mapping (cremap) technique for Hungary. <i>Periodica Polytechnica: Civil Engineering</i> , 2010, 54, 95.	0.6	14
48	Discussion of "Estimation of the Water Balance Using Observed Soil Water in the Nebraska Sandhills" by V. Sridhar and K. G. Hubbard. <i>Journal of Hydrologic Engineering - ASCE</i> , 2010, 15, 1075-1075.	0.8	2
49	Modified Advection-Aridity Model of Evapotranspiration. <i>Journal of Hydrologic Engineering - ASCE</i> , 2009, 14, 569-574.	0.8	38
50	Analytical solution of the coupled 2-D turbulent heat and vapor transport equations and the complementary relationship of evaporation. <i>Journal of Hydrology</i> , 2009, 372, 61-67.	2.3	22
51	Complementary relationship of evaporation and the mean annual water"energy balance. <i>Water Resources Research</i> , 2009, 45, .	1.7	24
52	Comment on "Power law catchment"scale recessions arising from heterogeneous linear small"scale dynamics" by C. J. Harman, M. Sivapalan, and P. Kumar. <i>Water Resources Research</i> , 2009, 45, .	1.7	7
53	An evaporation estimation method based on the coupled 2"D turbulent heat and vapor transport equations. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	10
54	Estimating spatially distributed monthly evapotranspiration rates by linear transformations of MODIS daytime land surface temperature data. <i>Hydrology and Earth System Sciences</i> , 2009, 13, 629-637.	1.9	9

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55	On diurnal riparian zone groundwater-level and streamflow fluctuations. Journal of Hydrology, 2008, 349, 1-5.	2.3	31
56	Comment on "Comparison of 15 evaporation models applied to a small mountain lake in the northeastern USA" by D.O. Rosenberry, T.C. Winter, D.C. Buso, and G.E. Likens [J. Hydrol. 340 (3&4) (2007) 149&166]. Journal of Hydrology, 2008, 348, 564-565.	2.3	3
57	Riparian zone evapotranspiration estimation from diurnal groundwater level fluctuations. Journal of Hydrology, 2008, 349, 6-17.	2.3	127
58	New findings about the complementary relationship-based evaporation estimation methods. Journal of Hydrology, 2008, 354, 171-186.	2.3	91
59	Application of a Routing Model for Detecting Channel Flow Changes with Minimal Data. Journal of Hydrologic Engineering - ASCE, 2008, 13, 521-526.	0.8	4
60	Hungarian national report on IAHS 2003&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.	2.3	62
62	Analysis of the nonlinearity in the hillslope runoff response to precipitation through numerical modeling. Journal of Hydrology, 2007, 337, 391-401.	2.3	10
63	On the inherent asymmetric nature of the complementary relationship of evaporation. Geophysical Research Letters, 2007, 34, .	1.5	82
64	Assessing stream&aquifer interactions through inverse modeling of flow routing. Journal of Hydrology, 2006, 327, 208-218.	2.3	5
65	Discrete state-space approximation of the continuous Kalinin&Milyukov&Nash cascade of noninteger storage elements. Journal of Hydrology, 2006, 328, 132-140.	2.3	9
66	Comment on "Using numerical modelling to evaluate the capillary fringe groundwater ridging hypothesis of streamflow generation" by H. L. Cloke, et al. [J. Hydrol. 316 (2006) 141&162]. Journal of Hydrology, 2006, 329, 724-729.	2.3	4
67	Comment on "Evaluation of the impact of groundwater irrigation on streamflow in Nebraska" by Fujian Wen and Xunhong Chen. Journal of Hydrology, 2006, 331, 605.	2.3	0
68	Hybrid, Markov Chain-Based Model for Daily Streamflow Generation at Multiple Catchment Sites. Journal of Hydrologic Engineering - ASCE, 2006, 11, 245-256.	0.8	29
69	Regional Estimation of Total Recharge to Ground Water in Nebraska. Ground Water, 2005, 43, 63-69.	0.7	39
70	Flow routing with unknown rating curves using a state-space reservoir-cascade-type formulation. Journal of Hydrology, 2005, 311, 219-229.	2.3	8
71	Accounting for Stream&Aquifer Interactions in the State-Space Discretization of the Kalinin&Milyukov&Nash Cascade for Streamflow Forecasting. Journal of Hydrologic Engineering - ASCE, 2004, 9, 135-143.	0.8	7
72	Heuristic Continuous Base Flow Separation. Journal of Hydrologic Engineering - ASCE, 2004, 9, 311-318.	0.8	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.	2.3	15
74	Comment on "A reappraisal of the Kalman filtering technique, as applied in river flow forecasting" by Ashan, M., O'Connor, K.M., 1994. Journal of Hydrology 161, 197-226. Journal of Hydrology, 2004, 285, 286-289.	2.3	4
75	Regional Estimation of Base Recharge to Ground Water Using Water Balance and a Base-Flow Index. Ground Water, 2003, 41, 504-513.	0.7	67
76	Sensitivity analysis of aquifer parameter estimations based on the Laplace equation with linearized boundary conditions. Water Resources Research, 2003, 39, .	1.7	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.	0.8	15
78	Sensitivity of Watershed Runoff under Humid Conditions to Potential Climate Variations. Journal of Environmental Engineering, ASCE, 2002, 128, 635-642.	0.7	5
79	Vegetation Indices to Aid Areal Evapotranspiration Estimations. Journal of Hydrologic Engineering - ASCE, 2002, 7, 368-372.	0.8	17
80	Comment on "The hydrology and hydrometeorology of extreme floods in the Great Plains of Eastern Nebraska" by Y. Zhang, J.A. Smith and M.L. Baeck. Advances in Water Resources, 2002, 25, 701-702.	1.7	1
81	Sudden drawdown and drainage of a horizontal aquifer. Water Resources Research, 2001, 37, 2097-2101.	1.7	64
82	On Bouchet's complementary hypothesis. Journal of Hydrology, 2001, 246, 155-158.	2.3	42
83	Modeled Areal Evaporation Trends over the Conterminous United States. Journal of Irrigation and Drainage Engineering - ASCE, 2001, 127, 196-200.	0.6	28
84	Evapotranspiration Intensifies over the Conterminous United States. Journal of Water Resources Planning and Management - ASCE, 2001, 127, 354-362.	1.3	51
85	Identifying Cause of Declining Flows in the Republican River. Journal of Water Resources Planning and Management - ASCE, 2001, 127, 244-253.	1.3	34
86	Can a vegetation index derived from remote sensing be indicative of areal transpiration?. Ecological Modelling, 2000, 127, 65-79.	1.2	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.	1.7	29
88	A geomorphology-based semi-distributed watershed model. Advances in Water Resources, 1999, 23, 177-187.	1.7	28
89	DEFINING WATERSHED-SCALE EVAPORATION USING A NORMALIZED DIFFERENCE VEGETATION INDEX. Journal of the American Water Resources Association, 1999, 35, 1245-1255.	1.0	7
90	On the Use of Semi-Logarithmic Plots for Baseflow Separation. Ground Water, 1999, 37, 660-662.	0.7	20

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91	Baseflow separation based on analytical solutions of the Boussinesq equation. Journal of Hydrology, 1998, 204, 251-260.	2.3	100
92	NDVI relationship to monthly evaporation. Geophysical Research Letters, 1998, 25, 1753-1756.	1.5	38
93	Recession flow analysis for aquifer parameter determination. Water Resources Research, 1998, 34, 1851-1857.	1.7	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.	1.2	25
95	Why can the weighting parameter of the Muskingum channel routing method be negative?. Journal of Hydrology, 1992, 138, 145-151.	2.3	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