Gilles Boulet

List of Publications by Year in descending order

83 papers	4,127 citations	109321 35 h-index	118850 62 g-index
97 all docs	97 docs citations	97 times ranked	4297 citing authors

#	Article	IF	Citations
1	Twenty-three unsolved problems in hydrology (UPH) â€“ a community perspective. Hydrological Sciences Journal, 2019, 64, 1141-1158.	2.6	474
2	Evapotranspiration components determined by stable isotope, sap flow and eddy covariance techniques. Agricultural and Forest Meteorology, 2004, 125, 241-258.	4.8	397
3	Monitoring wheat phenology and irrigation in Central Morocco: On the use of relationships between evapotranspiration, crops coefficients, leaf area index and remotely-sensed vegetation indices. Agricultural Water Management, 2006, 79, 1-27.	5.6	348
4	Analysis of evaporative fraction diurnal behaviour. Agricultural and Forest Meteorology, 2007, 143, 13-29.	4.8	233
5	A simple algorithm for yield estimates: Evaluation for semi-arid irrigated winter wheat monitored with green leaf area index. Environmental Modelling and Software, 2008, 23, 876-892.	4.5	148
6	Assimilation of Disaggregated Microwave Soil Moisture into a Hydrologic Model Using Coarse-Scale Meteorological Data. Journal of Hydrometeorology, 2006, 7, 1308-1322.	1.9	126
7	An integrated modelling and remote sensing approach for hydrological study in arid and semiâ€arid regions: the SUDMED Programme. International Journal of Remote Sensing, 2008, 29, 5161-5181.	2.9	109
8	Deriving daily evapotranspiration from remotely sensed instantaneous evaporative fraction over olive orchard in semi-arid Morocco. Journal of Hydrology, 2008, 354, 53-64.	5.4	103
9	Evaluation of the Snowmelt Runoff Model in the Moroccan High Atlas Mountains using two snow-cover estimates. Hydrological Sciences Journal, 2009, 54, 1094-1113.	2.6	98
10	Using the dual approach of FAO-56 for partitioning ET into soil and plant components for olive orchards in a semi-arid region. Agricultural Water Management, 2010, 97, 1769-1778.	5.6	94
11	Intercomparison of four remote-sensing-based energy balance methods to retrieve surface evapotranspiration and water stress of irrigated fields in semi-arid climate. Hydrology and Earth System Sciences, 2014, 18, 1165-1188.	4.9	84
12	Stomatal control of transpiration: Examination of Monteith's Formulation of canopy resistance. Water Resources Research, 1998, 34, 2301-2308.	4.2	77
13	Reconstruction of temporal variations of evapotranspiration using instantaneous estimates at the time of satellite overpass. Hydrology and Earth System Sciences, 2012, 16, 2995-3010.	4.9	76
14	Remote Sensing of Water Resources in Semi-Arid Mediterranean Areas: the joint international laboratory TREMA. International Journal of Remote Sensing, 2015, 36, 4879-4917.	2.9	74
15	The use of the scintillation technique for monitoring seasonal water consumption of olive orchards in a semi-arid region. Agricultural Water Management, 2007, 89, 173-184.	5.6	69
16	An image-based four-source surface energy balance model to estimate crop evapotranspiration from solar reflectance/thermal emission data (SEB-4S). Agricultural and Forest Meteorology, 2014, 184, 188-203.	4.8	68
17	Study of the mechanisms of evaporation under arid conditions using a detailed model of the soilâ€atmosphere continuum. Application to the EFEDA I experiment. Journal of Hydrology, 1997, 193, 114-141.	5.4	64
18	Soil moisture retrievals at L-band using a two-step inversion approach (COSMOS/NAFE'05 Experiment). Remote Sensing of Environment, 2009, 113, 1304-1312.	11.0	60

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19	Soil Clay Content Mapping Using a Time Series of Landsat TM Data in Semi-Arid Lands. Remote Sensing, 2015, 7, 6059-6078.	4.0	58
20	Estimation of surface sensible heat flux using dual angle observations of radiative surface temperature. Agricultural and Forest Meteorology, 2001, 108, 55-65.	4.8	56
21	Preface paper to the Semi-Arid Land-Surface-Atmosphere (SALSA) Program special issue. Agricultural and Forest Meteorology, 2000, 105, 3-20.	4.8	55
22	Monitoring water stress using time series of observed to unstressed surface temperature difference. Agricultural and Forest Meteorology, 2007, 146, 159-172.	4.8	54
23	A Software Tool for Atmospheric Correction and Surface Temperature Estimation of Landsat Infrared Thermal Data. Remote Sensing, 2016, 8, 696.	4.0	53
24	The MISTIGRI thermal infrared project: scientific objectives and mission specifications. International Journal of Remote Sensing, 2013, 34, 3437-3466.	2.9	52
25	The SPARSE model for the prediction of water stress and evapotranspiration components from thermal infra-red data and its evaluation over irrigated and rainfed wheat. Hydrology and Earth System Sciences, 2015, 19, 4653-4672.	4.9	52
26	Understanding hydrological processes with scarce data in a mountain environment. Hydrological Processes, 2008, 22, 1908-1921.	2.6	51
27	A simple water and energy balance model designed for regionalization and remote sensing data utilization. Agricultural and Forest Meteorology, 2000, 105, 117-132.	4.8	47
28	Citrus orchard evapotranspiration: Comparison between eddy covariance measurements and the FAO-56 approach estimates. Plant Biosystems, 2009, 143, 201-208.	1.6	46
29	An empirical expression to relate aerodynamic and surface temperatures for use within single-source energy balance models. Agricultural and Forest Meteorology, 2012, 161, 148-155.	4.8	45
30	A combined high and low spatial resolution approach for mapping snow covered areas in the Atlas mountains. International Journal of Remote Sensing, 2005, 26, 2755-2777.	2.9	42
31	Estimating evaporation in semi-arid areas facing data scarcity: Example of the El Haouareb dam (Merguellil catchment, Central Tunisia). Journal of Hydrology: Regional Studies, 2015, 3, 265-284.	2.4	42
32	Methods to aggregate turbulent fluxes over heterogeneous surfaces: application to SALSA data set in Mexico. Agricultural and Forest Meteorology, 2000, 105, 133-144.	4.8	39
33	Uncertainty assessment of surface net radiation derived from Landsat images. Remote Sensing of Environment, 2016, 175, 251-270.	11.0	39
34	Performance of the two-source energy budget (TSEB) model for the monitoring of evapotranspiration over irrigated annual crops in North Africa. Agricultural Water Management, 2017, 193, 71-88.	5.6	39
35	Long-term analysis of snow-covered area in the Moroccan High-Atlas through remote sensing. International Journal of Applied Earth Observation and Geoinformation, 2010, 12, S109-S115.	2.8	37
36	Monitoring Irrigation Consumption Using High Resolution NDVI Image Time Series: Calibration and Validation in the Kairouan Plain (Tunisia). Remote Sensing, 2015, 7, 13005-13028.	4.0	36

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37	Wheat yield estimation using remote sensing and the STICS model in the semiarid Yaqui valley, Mexico. Agronomy for Sustainable Development, 2004, 24, 295-304.	0.8	35
38	Agrometerological study of semiâ€arid areas: an experiment for analysing the potential of time series of FORMOSATâ€2 images (Tensiftâ€Marrakech plain). International Journal of Remote Sensing, 2008, 29, 5291-5299.	2.9	34
39	Estimation of the dynamics and yields of cereals in a semi-arid area using remote sensing and the SAFY growth model. International Journal of Remote Sensing, 2014, 35, 1004-1028.	2.9	33
40	A methodology to test the pertinence of remote-sensing data assimilation into vegetation models for water and energy exchange at the land surface. Agronomy for Sustainable Development, 2004, 24, 197-204.	0.8	30
41	Origin of recharge and salinity and their role on management issues of a large alluvial aquifer system in the semi-arid Haouz plain, Morocco. Environmental Earth Sciences, 2015, 73, 6195-6212.	2.7	28
42	An assessment of effective land surface parameterisation in regional-scale water balance studies. Journal of Hydrology, 1999, 217, 225-238.	5.4	27
43	The SudMed Program and the Joint International Laboratory TREMA: A Decade of Water Transfer Study in the Soil-plant-atmosphere System over Irrigated Crops in Semi-arid Area. Procedia Environmental Sciences, 2013, 19, 524-533.	1.4	27
44	EVASPA (EVapotranspiration Assessment from SPAce) Tool: An overview. Procedia Environmental Sciences, 2013, 19, 303-310.	1.4	26
45	Evaluation of a simple approach for crop evapotranspiration partitioning and analysis of the water budget distribution for several crop species. Agricultural and Forest Meteorology, 2013, 177, 46-56.	4.8	25
46	Assessment of actual evapotranspiration over a semiarid heterogeneous land surface by means of coupled low-resolution remote sensing data with an energy balance model: comparison to extra-large aperture scintillometer measurements. Hydrology and Earth System Sciences, 2018, 22, 2187-2209.	4.9	23
47	The role of aerodynamic resistance in thermal remote sensing-based evapotranspiration models. Remote Sensing of Environment, 2021, 264, 112602.	11.0	22
48	Spatial distribution of the air temperature in mountainous areas using satellite thermal infra-red data. Comptes Rendus - Geoscience, 2011, 343, 32-42.	1.2	21
49	Mosaic versus dual source approaches for modelling the surface energy balance of a semi-arid land. Hydrology and Earth System Sciences, 1999, 3, 247-258.	4.9	20
50	Energy fluxes and melt rate of a seasonal snow cover in the Moroccan High Atlas. Hydrological Sciences Journal, 0, , 1-13.	2.6	18
51	Deriving catchment-scale water and energy balance parameters using data assimilation based on extended Kalman filtering. Hydrological Sciences Journal, 2002, 47, 449-467.	2.6	17
52	Evaluation of the SPARSE Dual-Source Model for Predicting Water Stress and Evapotranspiration from Thermal Infrared Data over Multiple Crops and Climates. Remote Sensing, 2018, 10, 1806.	4.0	16
53	Evaluation of Multiple Methods for the Production of Continuous Evapotranspiration Estimates from TIR Remote Sensing. Remote Sensing, 2021, 13, 1086.	4.0	15
54	An evapotranspiration model driven by remote sensing data for assessing groundwater resource in karst watershed. Science of the Total Environment, 2021, 781, 146706.	8.0	15

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55	FAO-56 Dual Model Combined with Multi-Sensor Remote Sensing for Regional Evapotranspiration Estimations. Remote Sensing, 2014, 6, 5387-5406.	4.0	14
56	Evapotranspiration partition using the multiple energy balance version of the ISBA-A-g_s land surface model over two irrigated crops in a semi-arid Mediterranean region (Marrakech, Morocco). Hydrology and Earth System Sciences, 2020, 24, 3789-3814.	4.9	10
57	Utility of Copernicus-Based Inputs for Actual Evapotranspiration Modeling in Support of Sustainable Water Use in Agriculture. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 11466-11484.	4.9	10
58	Measurement and prediction of soil moisture in a medium-sized catchment. Hydrological Sciences Journal, 1998, 43, 597-610.	2.6	9
59	Evaluation of a two-stage evaporation approximation for contrasting vegetation cover. Water Resources Research, 2004, 40, .	4.2	9
60	An evaporation test based on Thermal Infra Red remote-sensing to select appropriate soil hydraulic properties. Journal of Hydrology, 2009, 376, 589-598.	5.4	9
61	Ability of a soilâ€“vegetationâ€“atmosphere transfer model and a two-source energy balance model to predict evapotranspiration for several crops and climate conditions. Hydrology and Earth System Sciences, 2019, 23, 5033-5058.	4.9	8
62	Analysis of Multispectral Drought Indices in Central Tunisia. Remote Sensing, 2022, 14, 1813.	4.0	8
63	Evapotranspiration and evaporation/transpiration partitioning with dual source energy balance models in agricultural lands. Proceedings of the International Association of Hydrological Sciences, 0, 380, 17-22.	1.0	7
64	Assessment of an extended SPARSE model for estimating evapotranspiration from directional thermal infrared data. Agricultural and Forest Meteorology, 2022, 317, 108882.	4.8	7
65	Snow hydrology in the Moroccan Atlas Mountains. Journal of Hydrology: Regional Studies, 2022, 42, 101101.	2.4	7
66	Evaluation and Aggregation Properties of Thermal Infra-Red-Based Evapotranspiration Algorithms from 100 m to the km Scale over a Semi-Arid Irrigated Agricultural Area. Remote Sensing, 2017, 9, 1178.	4.0	5
67	Effects of high spatial and temporal resolution Earth observations on simulated hydrometeorological variables in a cropland (southwestern France). Hydrology and Earth System Sciences, 2017, 21, 5693-5708.	4.9	5
68	Evapotranspiration in the Mediterranean region. , 2020, , 23-49.		5
69	Energy Balance of Continental Surfaces and the Use of Surface Temperature. , 2016, , 323-361.		4
70	Sentinel-1 and Sentinel-2 Data for Soil Moisture and Irrigation Mapping Over Semi-Arid Region. , 2019, , .		3
71	Evapotranspiration estimates in a traditional irrigated area in semi-arid Mediterranean. Comparison of four remote sensing-based models. Agricultural Water Management, 2022, 270, 107728.	5.6	3
72	Data Assimilation for the Monitoring of Continental Surfaces. , 2014, , 283-319.		2

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73	Ensemble Machine Learning Outperforms Empirical Equations for the Ground Heat Flux Estimation with Remote Sensing Data. Remote Sensing, 2022, 14, 1788.	4.0	2
74	Regional sub-daily stochastic weather generator based on reanalyses for surface water stress estimation in central Tunisia. Environmental Modelling and Software, 2022, 155, 105448.	4.5	2
75	Estimation of catchment-scale water-balance with a soil-vegetation-atmosphere transfer model. Environmental Modelling and Software, 1997, 12, 323-328.	4.5	1
76	Data assimilation of surface soil moisture, temperature, and evapotranspiration estimates in a SVAT model over irrigated areas in semi-arid regions: whatâ€™s best to constraint evapotranspiration predictions?. , 2013, , .		1
77	Monitoring Evapotranspiration with Remote Sensing Data and Ground Data Using Ensemble Model Averaging. , 2018, , .		1
78	EVAPOTRANSPIRATION AND EVAPORATION/TRANSPIRATION RETRIEVAL USING DUAL-SOURCE SURFACE ENERGY BALANCE MODELS INTEGRATING VIS/NIR/TIR DATA WITH SATELLITE SURFACE SOIL MOISTURE INFORMATION. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-3/W6, 9-12.	0.2	1
79	A remote sensing data fusion method for continuous daily evapotranspiration mapping at kilometric scale in Sahelian areas. Journal of Hydrology, 2022, 607, 127504.	5.4	1
80	Integrated modelling of the water cycle in semi arid watersheds based on ground and satellite data: the SudMed project. Proceedings of SPIE, 2010, , .	0.8	0
81	Using a time series of Landsat TM data for digital mapping to fill information gaps in topsoil texture central Tunisia. , 2014, , .		0
82	Monitoring irrigation volumes using high-resolution NDVI image time series: calibration and validation in the Kairouan plain (Tunisia). , 2015, , .		0
83	The photochemical Reflectance Index (PRI) and the vegetation temperature as indicators of water stress and transpiration in Mediterranean olive grove. , 2020, , .		0