

# Gilles Boulet

## List of Publications by Year in descending order

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Version: 2024-02-01

83  
papers

4,127  
citations

109137

35  
h-index

118652

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) – a community perspective. <i>Hydrological Sciences Journal</i> , 2019, 64, 1141-1158.	1.2	474
2	Evapotranspiration components determined by stable isotope, sap flow and eddy covariance techniques. <i>Agricultural and Forest Meteorology</i> , 2004, 125, 241-258.	1.9	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. <i>Agricultural Water Management</i> , 2006, 79, 1-27.	2.4	348
4	Analysis of evaporative fraction diurnal behaviour. <i>Agricultural and Forest Meteorology</i> , 2007, 143, 13-29.	1.9	233
5	A simple algorithm for yield estimates: Evaluation for semi-arid irrigated winter wheat monitored with green leaf area index. <i>Environmental Modelling and Software</i> , 2008, 23, 876-892.	1.9	148
6	Assimilation of Disaggregated Microwave Soil Moisture into a Hydrologic Model Using Coarse-Scale Meteorological Data. <i>Journal of Hydrometeorology</i> , 2006, 7, 1308-1322.	0.7	126
7	An integrated modelling and remote sensing approach for hydrological study in arid and semi-arid regions: the SUDMED Programme. <i>International Journal of Remote Sensing</i> , 2008, 29, 5161-5181.	1.3	109
8	Deriving daily evapotranspiration from remotely sensed instantaneous evaporative fraction over olive orchard in semi-arid Morocco. <i>Journal of Hydrology</i> , 2008, 354, 53-64.	2.3	103
9	Evaluation of the Snowmelt Runoff Model in the Moroccan High Atlas Mountains using two snow-cover estimates. <i>Hydrological Sciences Journal</i> , 2009, 54, 1094-1113.	1.2	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. <i>Agricultural Water Management</i> , 2010, 97, 1769-1778.	2.4	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. <i>Hydrology and Earth System Sciences</i> , 2014, 18, 1165-1188.	1.9	84
12	Stomatal control of transpiration: Examination of Monteith's Formulation of canopy resistance. <i>Water Resources Research</i> , 1998, 34, 2301-2308.	1.7	77
13	Reconstruction of temporal variations of evapotranspiration using instantaneous estimates at the time of satellite overpass. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 2995-3010.	1.9	76
14	Remote Sensing of Water Resources in Semi-Arid Mediterranean Areas: the joint international laboratory TREMA. <i>International Journal of Remote Sensing</i> , 2015, 36, 4879-4917.	1.3	74
15	The use of the scintillation technique for monitoring seasonal water consumption of olive orchards in a semi-arid region. <i>Agricultural Water Management</i> , 2007, 89, 173-184.	2.4	69
16	An image-based four-source surface energy balance model to estimate crop evapotranspiration from solar reflectance/thermal emission data (SEB-4S). <i>Agricultural and Forest Meteorology</i> , 2014, 184, 188-203.	1.9	68
17	Study of the mechanisms of evaporation under arid conditions using a detailed model of the soil-atmosphere continuum. Application to the EFEDA I experiment. <i>Journal of Hydrology</i> , 1997, 193, 114-141.	2.3	64
18	Soil moisture retrievals at L-band using a two-step inversion approach (COSMOS/NAFE'05 Experiment). <i>Remote Sensing of Environment</i> , 2009, 113, 1304-1312.	4.6	60

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19	Soil Clay Content Mapping Using a Time Series of Landsat TM Data in Semi-Arid Lands. <i>Remote Sensing</i> , 2015, 7, 6059-6078.	1.8	58
20	Estimation of surface sensible heat flux using dual angle observations of radiative surface temperature. <i>Agricultural and Forest Meteorology</i> , 2001, 108, 55-65.	1.9	56
21	Preface paper to the Semi-Arid Land-Surface-Atmosphere (SALSA) Program special issue. <i>Agricultural and Forest Meteorology</i> , 2000, 105, 3-20.	1.9	55
22	Monitoring water stress using time series of observed to unstressed surface temperature difference. <i>Agricultural and Forest Meteorology</i> , 2007, 146, 159-172.	1.9	54
23	A Software Tool for Atmospheric Correction and Surface Temperature Estimation of Landsat Infrared Thermal Data. <i>Remote Sensing</i> , 2016, 8, 696.	1.8	53
24	The MISTIGRI thermal infrared project: scientific objectives and mission specifications. <i>International Journal of Remote Sensing</i> , 2013, 34, 3437-3466.	1.3	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. <i>Hydrology and Earth System Sciences</i> , 2015, 19, 4653-4672.	1.9	52
26	Understanding hydrological processes with scarce data in a mountain environment. <i>Hydrological Processes</i> , 2008, 22, 1908-1921.	1.1	51
27	A simple water and energy balance model designed for regionalization and remote sensing data utilization. <i>Agricultural and Forest Meteorology</i> , 2000, 105, 117-132.	1.9	47
28	Citrus orchard evapotranspiration: Comparison between eddy covariance measurements and the FAO-56 approach estimates. <i>Plant Biosystems</i> , 2009, 143, 201-208.	0.8	46
29	An empirical expression to relate aerodynamic and surface temperatures for use within single-source energy balance models. <i>Agricultural and Forest Meteorology</i> , 2012, 161, 148-155.	1.9	45
30	A combined high and low spatial resolution approach for mapping snow covered areas in the Atlas mountains. <i>International Journal of Remote Sensing</i> , 2005, 26, 2755-2777.	1.3	42
31	Estimating evaporation in semi-arid areas facing data scarcity: Example of the El Haouareb dam (Merguellil catchment, Central Tunisia). <i>Journal of Hydrology: Regional Studies</i> , 2015, 3, 265-284.	1.0	42
32	Methods to aggregate turbulent fluxes over heterogeneous surfaces: application to SALSA data set in Mexico. <i>Agricultural and Forest Meteorology</i> , 2000, 105, 133-144.	1.9	39
33	Uncertainty assessment of surface net radiation derived from Landsat images. <i>Remote Sensing of Environment</i> , 2016, 175, 251-270.	4.6	39
34	Performance of the two-source energy budget (TSEB) model for the monitoring of evapotranspiration over irrigated annual crops in North Africa. <i>Agricultural Water Management</i> , 2017, 193, 71-88.	2.4	39
35	Long-term analysis of snow-covered area in the Moroccan High-Atlas through remote sensing. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2010, 12, S109-S115.	1.4	37
36	Monitoring Irrigation Consumption Using High Resolution NDVI Image Time Series: Calibration and Validation in the Kairouan Plain (Tunisia). <i>Remote Sensing</i> , 2015, 7, 13005-13028.	1.8	36

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37	Wheat yield estimation using remote sensing and the STICS model in the semiarid Yaqui valley, Mexico. <i>Agronomy for Sustainable Development</i> , 2004, 24, 295-304.	0.8	35
38	Agrometeorological study of semi-arid areas: an experiment for analysing the potential of time series of FORMOSAT-2 images (Tensift-Marrakech plain). <i>International Journal of Remote Sensing</i> , 2008, 29, 5291-5299.	1.3	34
39	Estimation of the dynamics and yields of cereals in a semi-arid area using remote sensing and the SAFY growth model. <i>International Journal of Remote Sensing</i> , 2014, 35, 1004-1028.	1.3	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. <i>Agronomy for Sustainable Development</i> , 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. <i>Environmental Earth Sciences</i> , 2015, 73, 6195-6212.	1.3	28
42	An assessment of effective land surface parameterisation in regional-scale water balance studies. <i>Journal of Hydrology</i> , 1999, 217, 225-238.	2.3	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. <i>Procedia Environmental Sciences</i> , 2013, 19, 524-533.	1.3	27
44	EVASPA (EVapotranspiration Assessment from SPACe) Tool: An overview. <i>Procedia Environmental Sciences</i> , 2013, 19, 303-310.	1.3	26
45	Evaluation of a simple approach for crop evapotranspiration partitioning and analysis of the water budget distribution for several crop species. <i>Agricultural and Forest Meteorology</i> , 2013, 177, 46-56.	1.9	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. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 2187-2209.	1.9	23
47	The role of aerodynamic resistance in thermal remote sensing-based evapotranspiration models. <i>Remote Sensing of Environment</i> , 2021, 264, 112602.	4.6	22
48	Spatial distribution of the air temperature in mountainous areas using satellite thermal infra-red data. <i>Comptes Rendus - Geoscience</i> , 2011, 343, 32-42.	0.4	21
49	Mosaic versus dual source approaches for modelling the surface energy balance of a semi-arid land. <i>Hydrology and Earth System Sciences</i> , 1999, 3, 247-258.	1.9	20
50	Energy fluxes and melt rate of a seasonal snow cover in the Moroccan High Atlas. <i>Hydrological Sciences Journal</i> , 0, , 1-13.	1.2	18
51	Deriving catchment-scale water and energy balance parameters using data assimilation based on extended Kalman filtering. <i>Hydrological Sciences Journal</i> , 2002, 47, 449-467.	1.2	17
52	Evaluation of the SPARSE Dual-Source Model for Predicting Water Stress and Evapotranspiration from Thermal Infrared Data over Multiple Crops and Climates. <i>Remote Sensing</i> , 2018, 10, 1806.	1.8	16
53	Evaluation of Multiple Methods for the Production of Continuous Evapotranspiration Estimates from TIR Remote Sensing. <i>Remote Sensing</i> , 2021, 13, 1086.	1.8	15
54	An evapotranspiration model driven by remote sensing data for assessing groundwater resource in karst watershed. <i>Science of the Total Environment</i> , 2021, 781, 146706.	3.9	15

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55	FAO-56 Dual Model Combined with Multi-Sensor Remote Sensing for Regional Evapotranspiration Estimations. <i>Remote Sensing</i> , 2014, 6, 5387-5406.	1.8	14
56	Evapotranspiration partition using the multiple energy balance version of the ISBA-A-g&lt;sub&gt;s&lt;/sub&gt; land surface model over two irrigated crops in a semi-arid Mediterranean region (Marrakech, Morocco). <i>Hydrology and Earth System Sciences</i> , 2020, 24, 3789-3814.	1.9	10
57	Utility of Copernicus-Based Inputs for Actual Evapotranspiration Modeling in Support of Sustainable Water Use in Agriculture. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2021, 14, 11466-11484.	2.3	10
58	Measurement and prediction of soil moisture in a medium-sized catchment. <i>Hydrological Sciences Journal</i> , 1998, 43, 597-610.	1.2	9
59	Evaluation of a two-stage evaporation approximation for contrasting vegetation cover. <i>Water Resources Research</i> , 2004, 40, .	1.7	9
60	An evaporation test based on Thermal Infra Red remote-sensing to select appropriate soil hydraulic properties. <i>Journal of Hydrology</i> , 2009, 376, 589-598.	2.3	9
61	Ability of a soil-vegetation-atmosphere transfer model and a two-source energy balance model to predict evapotranspiration for several crops and climate conditions. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 5033-5058.	1.9	8
62	Analysis of Multispectral Drought Indices in Central Tunisia. <i>Remote Sensing</i> , 2022, 14, 1813.	1.8	8
63	Evapotranspiration and evaporation/transpiration partitioning with dual source energy balance models in agricultural lands. <i>Proceedings of the International Association of Hydrological Sciences</i> , 0, 380, 17-22.	1.0	7
64	Assessment of an extended SPARSE model for estimating evapotranspiration from directional thermal infrared data. <i>Agricultural and Forest Meteorology</i> , 2022, 317, 108882.	1.9	7
65	Snow hydrology in the Moroccan Atlas Mountains. <i>Journal of Hydrology: Regional Studies</i> , 2022, 42, 101101.	1.0	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. <i>Remote Sensing</i> , 2017, 9, 1178.	1.8	5
67	Effects of high spatial and temporal resolution Earth observations on simulated hydrometeorological variables in a cropland (southwestern France). <i>Hydrology and Earth System Sciences</i> , 2017, 21, 5693-5708.	1.9	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. <i>Agricultural Water Management</i> , 2022, 270, 107728.	2.4	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. <i>Remote Sensing</i> , 2022, 14, 1788.	1.8	2
74	Regional sub-daily stochastic weather generator based on reanalyses for surface water stress estimation in central Tunisia. <i>Environmental Modelling and Software</i> , 2022, 155, 105448.	1.9	2
75	Estimation of catchment-scale water-balance with a soil-vegetation-atmosphere transfer model. <i>Environmental Modelling and Software</i> , 1997, 12, 323-328.	1.9	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/TRANSPARATION RETRIEVAL USING DUAL-SOURCE SURFACE ENERGY BALANCE MODELS INTEGRATING VIS/NIR/TIR DATA WITH SATELLITE SURFACE SOIL MOISTURE INFORMATION. <i>International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives</i> , 0, XLII-3/W6, 9-12.	0.2	1
79	A remote sensing data fusion method for continuous daily evapotranspiration mapping at kilometeric scale in Sahelian areas. <i>Journal of Hydrology</i> , 2022, 607, 127504.	2.3	1
80	Integrated modelling of the water cycle in semi arid watersheds based on ground and satellite data: the SudMed project. <i>Proceedings of SPIE</i> , 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