Xavier Briottet

List of Publications by Year
in descending order

137 papers	**3,173** citations	218677 **26** h-index	168389 **53** g-index
138 all docs	**138** docs citations	**138** times ranked	**3352** citing authors

#	Article	IF	Citations
1	A Simulation-Based Error Budget of the TES Method for the Design of the Spectral Configuration of the Micro-Bolometer-Based MISTIGRI Thermal Infrared Sensor. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-19.	6.3	3
2	Proxy Data of Surface Water Floods in Rural Areas: Application to the Evaluation of the IRIP Intense Runoff Mapping Method Based on Satellite Remote Sensing and Rainfall Radar. Water (Switzerland), 2022, 14, 393.	2.7	2
3	Individual Tree Crown Delineation Method Based on Multi-Criteria Graph Using Geometric and Spectral Information: Application to Several Temperate Forest Sites. Remote Sensing, 2022, 14, 1083.	4.0	4
4	Hyperspectral Pansharpening in the Reflective Domain with a Second Panchromatic Channel in the SWIR II Spectral Domain. Remote Sensing, 2022, 14, 113.	4.0	4
5	Impact of the number of dates and their sampling on a NDVI time series reconstruction methodology to monitor urban trees with VenÎ¼s satellite. International Journal of Applied Earth Observation and Geoinformation, 2021, 95, 102257.	2.8	6
6	Impact of Tree Crown Transmittance on Surface Reflectance Retrieval in the Shade for High Spatial Resolution Imaging Spectroscopy: A Simulation Analysis Based on Tree Modeling Scenarios. Remote Sensing, 2021, 13, 931.	4.0	3
7	Impact of Modeling Abstractions When Estimating Leaf Mass per Area and Equivalent Water Thickness over Sparse Forests Using a Hybrid Method. Remote Sensing, 2021, 13, 3235.	4.0	3
8	A repeatable change detection approach to map extreme storm-related damages caused by intense surface runoff based on optical and SAR remote sensing: Evidence from three case studies in the South of France. ISPRS Journal of Photogrammetry and Remote Sensing, 2021, 182, 153-175.	11.1	10
9	A New Material-Oriented TES for Land Surface Temperature and SUHI Retrieval in Urban Areas: Case Study over Madrid in the Framework of the Future TRISHNA Mission. Remote Sensing, 2021, 13, 5139.	4.0	2
10	Monitoring LAI, Chlorophylls, and Carotenoids Content of a Woodland Savanna Using Hyperspectral Imagery and 3D Radiative Transfer Modeling. Remote Sensing, 2020, 12, 28.	4.0	24
11	Joint Use of PROSAIL and DART for Fast LUT Building: Application to Gap Fraction and Leaf Biochemistry Estimations over Sparse Oak Stands. Remote Sensing, 2020, 12, 2925.	4.0	11
12	Using a Panchromatic Image to Improve Hyperspectral Unmixing. Remote Sensing, 2020, 12, 2834.	4.0	3
13	Mapping Benthic Habitats by Extending Non-Negative Matrix Factorization to Address the Water Column and Seabed Adjacency Effects. Remote Sensing, 2020, 12, 2072.	4.0	6
14	Applications in remote sensingâ€"anthropogenic activities. Data Handling in Science and Technology, 2020, 32, 411-452.	3.1	1
15	Spectral Unmixing for Thermal Infrared Multi-Spectral Airborne Imagery over Urban Environments: Day and Night Synergy. Remote Sensing, 2020, 12, 1871.	4.0	3
16	Montmorillonite Estimation in Clayâ€"Quartzâ€"Calcite Samples from Laboratory SWIR Imaging Spectroscopy: A Comparative Study of Spectral Preprocessings and Unmixing Methods. Remote Sensing, 2020, 12, 1723.	4.0	9
17	Phenological Dynamics Characterization of Alignment Trees with Sentinel-2 Imagery: A Vegetation Indices Time Series Reconstruction Methodology Adapted to Urban Areas. Remote Sensing, 2020, 12, 639.	4.0	20
18	Potentiel de l'imagerie optique satellitaire Ã haute rÃ©solution pour dÃ©tecter les dommages engendrÃ©s par des Ã©pisodes pluvieux extrÃªmes. Houille Blanche, 2020, 106, 66-74.	0.3	5

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19	Multi-Resolution Study of Thermal Unmixing Techniques over Madrid Urban Area: Case Study of TRISHNA Mission. Remote Sensing, 2019, 11, 1251.	4.0	12
20	Night Thermal Unmixing for the Study of Microscale Surface Urban Heat Islands with TRISHNA-Like Data. Remote Sensing, 2019, 11, 1449.	4.0	8
21	Partial Linear NMF-Based Unmixing Methods for Detection and Area Estimation of Photovoltaic Panels in Urban Hyperspectral Remote Sensing Data. Remote Sensing, 2019, 11, 2164.	4.0	32
22	Land Surface Temperature Retrieval over Urban areas from simulated TRISHNA data. , 2019, , .		1
23	Revisiting Pseudo Invariant Calibration Sites (PICS) Over Sand Deserts for Vicarious Calibration of Optical Imagers at 20 km and 100 km Scales. Remote Sensing, 2019, 11, 1166.	4.0	28
24	Anthropogenic aerosol emissions mapping and characterization by imaging spectroscopy â€" application to a metallurgical industry and a petrochemical complex. International Journal of Remote Sensing, 2019, 40, 364-406.	2.9	7
25	Object-based fusion for urban tree species classification from hyperspectral, panchromatic and nDSM data. International Journal of Remote Sensing, 2019, 40, 5339-5365.	2.9	12
26	Identification of the London plane in urban alignment based on hyperspectral data and contextual information. , 2019, , .		0
27	A New Hyperspectral Unmixing Method Using Co-Registered Hyperspectral and Panchromatic Images. , 2019, , .		2
28	Relations Between Landsat Spectral Reflectances and Land Surface Emissivity Over Bare Soils. , 2019, , .		0
29	Validation of an empirical method for thin cirrus correction with Sentinel-2 data. , 2019, , .		2
30	Analysis and quantification of seabed adjacency effects in the subsurface upward radiance in shallow waters. Optics Express, 2019, 27, A319.	3.4	7
31	Comparison of two atmospheric correction methods for the classification of spaceborne urban hyperspectral data depending on the spatial resolution. International Journal of Remote Sensing, 2018, 39, 1593-1614.	2.9	7
32	Application and Extension of PCA Concepts to Blind Unmixing of Hyperspectral Data with Intra-class Variability. , 2018, , 225-252.		3
33	Sensitivity of clay content prediction to spectral configuration of VNIR/SWIR imaging data, from multispectral to hyperspectral scenarios. Remote Sensing of Environment, 2018, 204, 18-30.	11.0	61
34	Detection of individual trees in urban alignment from airborne data and contextual information: A marked point process approach. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 146, 197-210.	11.1	20
35	Detection And Area Estimation For Photovoltaic Panels In Urban Hyperspectral Remote Sensing Data By An Original Nmf-Based Unmixing Method. , 2018, , .		8
36	Inertia-Constrained Pixel-by-Pixel Nonnegative Matrix Factorisation: A Hyperspectral Unmixing Method Dealing with Intra-Class Variability. Remote Sensing, 2018, 10, 1706.	4.0	27

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37	ICARE-VEG: A 3D physics-based atmospheric correction method for tree shadows in urban areas. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 142, 311-327.	11.1	5
38	MARMIT: A multilayer radiative transfer model of soil reflectance to estimate surface soil moisture content in the solar domain (400–2500 nm). Remote Sensing of Environment, 2018, 217, 1-17.	11.0	64
39	Hierarchically exploring the width of spectral bands for urban material classification. , 2017, , .		2
40	Reassessment of the temperature-emissivity separation from multispectral thermal infrared data: Introducing the impact of vegetation canopy by simulating the cavity effect with the SAIL-Thermique model. Remote Sensing of Environment, 2017, 198, 160-172.	11.0	34
41	Using 3D information for atmospheric correction of airborne hyperspectral images of urban areas. , 2017, , .		1
42	Classification of peatland vegetation types using in situ hyperspectral measurements. , 2017, , .		4
43	Criteria Comparison for Classifying Peatland Vegetation Types Using In Situ Hyperspectral Measurements. Remote Sensing, 2017, 9, 748.	4.0	31
44	North Africa and Saudi Arabia Day/Night Sandstorm Survey (NASCube). Remote Sensing, 2017, 9, 896.	4.0	17
45	Background Radiance Estimation for Gas Plume Quantification for Airborne Hyperspectral Thermal Imaging. Journal of Spectroscopy, 2016, 2016, 1-17.	1.3	2
46	Corrigendum to "Background Radiance Estimation for Gas Plume Quantification for Airborne Hyperspectral Thermal Imaging" Journal of Spectroscopy, 2016, 2016, 1-4.	1.3	1
47	Radiometry in the Optical Domain. , 2016, , 1-56.		3
48	Optical Remote Sensing in Urban Environments. , 2016, , 1-62.		2
49	Characterization of Industrial Plumes. , 2016, , 97-146.		0
50	Comparison of simulated and experimental 3D laser images using a GmAPD array: application to long range detection. Proceedings of SPIE, 2016, , .	0.8	0
51	A sub km resolution global database of surface reflectance and emissivity based on 10-years of MODIS data. ISPRS Journal of Photogrammetry and Remote Sensing, 2016, 122, 222-235.	11.1	3
52	ICARE-HS: atmospheric correction of airborne hyperspectral urban images using 3D information. Proceedings of SPIE, 2016, , .	0.8	1
53	A linear-quadratic unsupervised hyperspectral unmixing method dealing with intra-class variability. , 2016, , .		4
54	A comparison of several feature selection scores applied to hyperspectral data. , 2015, , .		0

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55	A method based on nonnegative matrix factorization dealing with intra-class variability for unsupervised hyperspectral unmixing. , 2015, , .		2
56	Hyperspectral pansharpening based on unmixing techniques. , 2015, , .		1
57	Development and validation of a numerical tool for simulating the surface temperature field and the infrared radiance rendering in an urban scene. Quantitative InfraRed Thermography Journal, 2015, 12, 196-218.	4.2	2
58	A random forest class memberships based wrapper band selection criterion: Application to hyperspectral. , 2015, , .		6
59	Performance assessment of simulated 3D laser images using Geiger-mode avalanche photo-diode: tests on simple synthetic scenarios. Proceedings of SPIE, 2015, , .	0.8	1
60	A Physics-Based Unmixing Method to Estimate Subpixel Temperatures on Mixed Pixels. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 1894-1906.	6.3	27
61	Estimation of Soil Moisture Content from the Spectral Reflectance of Bare Soils in the 0.4â€“2.5 Âµm Domain. Sensors, 2015, 15, 3262-3281.	3.8	90
62	Improvement of Soil Moisture Retrieval from Hyperspectral VNIR-SWIR Data Using Clay Content Information: From Laboratory to Field Experiments. Remote Sensing, 2015, 7, 3184-3205.	4.0	29
63	Evaluating the sensitivity of clay content prediction to atmospheric effects and degradation of image spatial resolution using Hyperspectral VNIR/SWIR imagery. Remote Sensing of Environment, 2015, 164, 1-15.	11.0	57
64	Hyperspectral Pansharpening: A Review. IEEE Geoscience and Remote Sensing Magazine, 2015, 3, 27-46.	9.6	593
65	Use intermediate results of wrapper band selection methods: A first step toward the optimization of spectral configuration for land cover classifications. , 2014, , .		3
66	Solar panels reduce both global warming and urban heat island. Frontiers in Environmental Science, 2014, 2, .	3.3	137
67	A physics-based unmixing method for thermal hyperspectral images. , 2014, , .		1
68	An unmixing-based method for the analysis of thermal hyperspectral images. , 2014, , .		3
69	Simulating Space Lidar Waveforms From Smaller-Footprint Airborne Laser Scanner Data for Vegetation Observation. IEEE Geoscience and Remote Sensing Letters, 2014, 11, 534-538.	3.1	5
70	MosaÃ¯c active imaging: direct physical modeling and image reconstruction. Proceedings of SPIE, 2014, , .	0.8	0
71	Linear-Quadratic Blind Source Separation Using NMF to Unmix Urban Hyperspectral Images. IEEE Transactions on Signal Processing, 2014, 62, 1822-1833.	5.3	75
72	Linearâ€“Quadratic Mixing Model for Reflectances in Urban Environments. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 544-558.	6.3	101

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73	Analysis of the Performance of the TES Algorithm Over Urban Areas. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 6989-6998.	6.3	16
74	Adapting cities to climate change: A systemic modelling approach. Urban Climate, 2014, 10, 407-429.	5.7	154
75	A non-linear optimal estimator for plume concentration retrieval, using airborne hyperspectral measurement. , 2014, , .		1
76	Characterization of hyperspectral images prior to unmixing, based on eigendecompositions and sum-to-one condition. , 2014, , .		1
77	Identify important spectrum bands for classification using importances of wrapper selection applied to hyperspectral data. , 2014, , .		3
78	Hyperspectral reconnaissance in urban environment. , 2013, , .		5
79	Shadow detection in very high spatial resolution aerial images: A comparative study. ISPRS Journal of Photogrammetry and Remote Sensing, 2013, 80, 21-38.	11.1	159
80	Remote sensing of aerosols in urban areas from very high spatial resolution images: application of the OSIS code to multispectral PELICAN airborne data. International Journal of Remote Sensing, 2013, 34, 919-937.	2.9	7
81	The MISTIGRI thermal infrared project: scientific objectives and mission specifications. International Journal of Remote Sensing, 2013, 34, 3437-3466.	2.9	52
82	Efficient Empirical Reflectance Retrieval in Urban Environments. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 1596-1601.	4.9	8
83	Material reflectance retrieval in urban tree shadows with physics-based empirical atmospheric correction. , 2013, , .		2
84	Simultaneous retrieval of CO_2 and aerosols in a plume from hyperspectral imagery: application to the characterization of forest fire smoke using AVIRIS data. International Journal of Remote Sensing, 2013, 34, 6837-6864.	2.9	10
85	Influence of soil moisture content on spectral reflectance of bare soils in the 0.4â€"14 Î¼m domain. International Journal of Remote Sensing, 2013, 34, 2268-2285.	2.9	44
86	HYPXIM: A second generation high spatial resolution hyperspectral satellite for dual applications. , 2013, , .		7
87	The comparability of aggregated emissivity and temperature of heterogeneous pixel to conventional tes methods. , 2013, , .		0
88	SYSIPHE, airborne hyperspectral system: Focus on the SIELETERS thermal hyperspectral imaging instrument. , 2013, , .		0
89	Detection in urban scenario using combined airborne imaging sensors. Proceedings of SPIE, 2012, , .	0.8	3
90	Physic based aggregation model for the unmixing of temperature and optical properties in the infrared domain. , 2012, , .		2

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91	Performance analysis of unsupervised unmixing models for thermal hyepsrpectral. , 2012, , .		2
92	HYPXIM: A new hyperspectral sensor combining science/defence applications. , 2011, , .		10
93	A nonlinear unmixing method in the infrared domain. Applied Optics, 2011, 50, 3666.	2.1	7
94	OSIS: remote sensing code for estimating aerosol optical properties in urban areas from very high spatial resolution images. Applied Optics, 2011, 50, 5408.	2.1	2
95	AMARTIS v2: 3D Radiative Transfer Code in the [0.4; 2.5 µm] Spectral Domain Dedicated to Urban Areas. Remote Sensing, 2011, 3, 1914-1942.	4.0	12
96	Influence of Water Content on Spectral Reflectance of Leaves in the 3–15- $\mu\mbox{m}$ Domain. IEEE Geoscience and Remote Sensing Letters, 2011, 8, 143-147.	3.1	78
97	Aggregation process of optical properties and temperature over heterogeneous surfaces in infrared domain. Applied Optics, 2010, 49, 4655.	2.1	9
98	Construction of a Global Database of Surface Reflectance and Emissivity at a Sub km Resolution. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2010, 6, 195-200.	0.4	2
99	Modelling of aggregation and disaggregation of optical properties and surface temperatures over urban area in infrared domain. , 2009, , .		0
100	Retrieval of microphysical and optical properties in aerosol plumes with hyperspectral imagery: L-APOM method. Remote Sensing of Environment, 2009, 113, 781-793.	11.0	15
101	Remote sensing of aerosols in urban areas: sun/shadow retrieval procedure from airborne very high spatial resolution images. , 2009, , .		2
102	Soil moisture impact on lab measured reflectance of bare soils in the optical domain [0.4&#x2013;15 &#x03BC;M]. , 2009, , .		4
103	Monitoring land surface processes with thermal infrared data: Calibration of SVAT parameters based on the optimisation of diurnal surface temperature cycling features. Remote Sensing of Environment, 2008, 112, 872-887.	11.0	29
104	The Canopy and Aerosol Particles Interactions in TOulouse Urban Layer (CAPITOUL) experiment. Meteorology and Atmospheric Physics, 2008, 102, 135-157.	2.0	124
105	ICARE: A physically-based model to correct atmospheric and geometric effects from high spatial and spectral remote sensing images over 3D urban areas. Meteorology and Atmospheric Physics, 2008, 102, 209-222.	2.0	29
106	Remote sensing of aerosol plumes: a semianalytical model. Applied Optics, 2008, 47, 1851.	2.1	12
107	Thermal infrared radiance simulation with aggregation modeling (TITAN): an infrared radiative transfer model for heterogeneous three-dimensional surface--application over urban areas. Applied Optics, 2008, 47, 5799.	2.1	24
108	Aerosols in urban areas: optical properties and impact on the signal incident to an airborne high-spatial resolution camera. , 2008, , .		4

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109	TITAN: a new infrared radiative transfer model for the study of heterogeneous 3D surface. Proceedings of SPIE, 2008, , .	0.8	1
110	Radiative modeling and characterization of aerosol plumes in hyperspectral imagery. , 2007, , .		1
111	Sensor radiance physical model for rugged heterogeneous surfaces in the 3-14 Î¼m region.. Optics Express, 2006, 14, 2130.	3.4	7
112	Hyperspectral remote sensing of biomass burning aerosol plumes: sensitivity to optical properties modeling. , 2006, , .		1
113	Direct and inverse radiative transfer solutions for visible and near-infrared hyperspectral imagery. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 1552-1562.	6.3	68
114	Simulation Study of View Angle Effects on Thermal Infrared Measurements Over Heterogeneous Surfaces. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 664-672.	6.3	15
115	Phenomenological Analysis of Simulated Signals Observed Over Shaded Areas in an Urban Scene. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 434-442.	6.3	7
116	Assimilation method to derive spectral ground reflectance of desert sites from satellite datasets. Remote Sensing of Environment, 2003, 87, 359-370.	11.0	14
117	Traceable radiometry underpinning terrestrial- and helio-studies (TRUTHS). Advances in Space Research, 2003, 32, 2253-2261.	2.6	33
118	Traceable radiometry underpinning terrestrial- and helio-studies (TRUTHS). , 2003, , .		5
119	Directional effect on change of spatial scale over heterogeneous surface in thermal infrared remote sensing. , 2002, , .		2
120	Combined field [3 to 5 Î¼ m] and [8 to 14 Î¼ m] infrared imaging: approaches to extracting target's bidirectional reflectivity and emissivity. , 2002, 4538, 1.		0
121	Impact of contextual information integration on pixel fusion. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 1997-2010.	6.3	8
122	Intercalibration of optical satellites â€" a case study with MOMS and SPOT. Aerospace Science and Technology, 2001, 5, 305-315.	4.8	7
123	Calibration of SPOT4 HRVIR and Vegetation cameras over Rayleigh scattering. , 2000, 4135, 302.		15
124	Radiative transfer solution for rugged and heterogeneous scene observations. Applied Optics, 2000, 39, 6830.	2.1	23
125	Results of POLDER in-flight calibration. IEEE Transactions on Geoscience and Remote Sensing, 1999, 37, 1550-1566.	6.3	127
126	Monte Carlo approach for solving the radiative transfer equation over mountainous and heterogeneous areas. Applied Optics, 1999, 38, 7419.	2.1	26

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127	<title>Comparison of measured and modeled BRDF of natural targets</title>. , 1999, , .		13
128	<title>SPOT4: first in-flight absolute calibration results</title>. , 1998, , .		2
129	<title>Presentation of a new BRDF measurement device</title>. , 1998, , .		14
130	<title>Evaluation of the different irradiance components on a rugged terrain</title>. , 1998, 3494, 41.		1
131	<title>POLDER multiangular calibration using desert sites: method and performances</title>. , 1997, 3221, 141.		3
132	SPOT calibration of blue and green channels using Rayleigh scattering over clear oceans. , 1997, , .		3
133	<title>Vegetation calibration of blue and red channels using Rayleigh scattering over open oceans</title>. , 1997, , .		3
134	Selection and characterization of Saharan and Arabian desert sites for the calibration of optical satellite sensors. Remote Sensing of Environment, 1996, 58, 101-114.	11.0	269
135	Characterization of desert areas with Meteosat-4 data for the calibration of optical satellite sensors. , 1993, , .		3
136	<title>On-board calibration device for a wide field-of-view instrument</title>. , 1991, , .		0
137	Spectral Optimization of Airborne Multispectral Camera for Land Cover Classification: Automatic Feature Selection and Spectral Band Clustering. , 0, , .		0