Valero Laparra

List of Publications by Year
in descending order

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72 papers	1,316 citations	430442 18 h-index	414034 32 g-index
73 all docs	73 docs citations	73 times ranked	1341 citing authors

#	Article	IF	Citations
1	A Survey on Gaussian Processes for Earth-Observation Data Analysis: A Comprehensive Investigation. IEEE Geoscience and Remote Sensing Magazine, 2016, 4, 58-78.	4.9	172
2	End-to-end optimization of nonlinear transform codes for perceptual quality. , 2016, , .		138
3	Perceptual image quality assessment using a normalized Laplacian pyramid. IS&T International Symposium on Electronic Imaging, 2016, 28, 1-6.	0.3	78
4	Divisive normalization image quality metric revisited. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 852.	0.8	76
5	Iterative Gaussianization: From ICA to Random Rotations. IEEE Transactions on Neural Networks, 2011, 22, 537-549.	4.8	72
6	Derivation of global vegetation biophysical parameters from EUMETSAT Polar System. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 139, 57-74.	4.9	68
7	Physics-aware Gaussian processes in remote sensing. Applied Soft Computing Journal, 2018, 68, 69-82.	4.1	67
8	Transferring deep learning models for cloud detection between Landsat-8 and Proba-V. ISPRS Journal of Photogrammetry and Remote Sensing, 2020, 160, 1-17.	4.9	47
9	Encoding Invariances in Remote Sensing Image Classification With SVM. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 981-985.	1.4	46
10	Perceptually optimized image rendering. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 1511.	0.8	45
11	Regression Wavelet Analysis for Lossless Coding of Remote-Sensing Data. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 5616-5627.	2.7	39
12	Psychophysically Tuned Divisive Normalization Approximately Factorizes the PDF of Natural Images. Neural Computation, 2010, 22, 3179-3206.	1.3	38
13	Nonlinearities and Adaptation of Color Vision from Sequential Principal Curves Analysis. Neural Computation, 2012, 24, 2751-2788.	1.3	36
14	Dimensionality Reduction via Regression in Hyperspectral Imagery. IEEE Journal on Selected Topics in Signal Processing, 2015, 9, 1026-1036.	7.3	36
15	Fair Kernel Learning. Lecture Notes in Computer Science, 2017, , 339-355.	1.0	26
16	PRINCIPAL POLYNOMIAL ANALYSIS. International Journal of Neural Systems, 2014, 24, 1440007.	3.2	24
17	A Review of Kernel Methods in Remote Sensing Data Analysis. , 2011, , 171-206.		22
18	Statistical retrieval of atmospheric profiles with deep convolutional neural networks. ISPRS Journal of Photogrammetry and Remote Sensing, 2019, 158, 231-240.	4.9	21

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19	Optimized Kernel Entropy Components. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 1466-1472.	7.2	19
20	Randomized kernels for large scale Earth observation applications. Remote Sensing of Environment, 2017, 202, 54-63.	4.6	18
21	Spatio-Chromatic Adaptation via Higher-Order Canonical Correlation Analysis of Natural Images. PLoS ONE, 2014, 9, e86481.	1.1	18
22	Visual aftereffects and sensory nonlinearities from a single statistical framework. Frontiers in Human Neuroscience, 2015, 9, 557.	1.0	16
23	Cross-Sensor Adversarial Domain Adaptation of Landsat-8 and Proba-V Images for Cloud Detection. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 747-761.	2.3	15
24	Combined dynamics of the 500â€“600Ânm leaf absorption and chlorophyll fluorescence changes in vivo: Evidence for the multifunctional energy quenching role of xanthophylls. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148351.	0.5	13
25	Kernel Anomalous Change Detection for Remote Sensing Imagery. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 7743-7755.	2.7	12
26	Accounting for Input Noise in Gaussian Process Parameter Retrieval. IEEE Geoscience and Remote Sensing Letters, 2020, 17, 391-395.	1.4	11
27	Statistical Atmospheric Parameter Retrieval Largely Benefits From Spatialâ€“Spectral Image Compression. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 2213-2224.	2.7	10
28	Perceptnet: A Human Visual System Inspired Neural Network For Estimating Perceptual Distance. , 2020, , .		9
29	HyperLabelMe : A Web Platform for Benchmarking Remote-Sensing Image Classifiers. IEEE Geoscience and Remote Sensing Magazine, 2017, 5, 79-85.	4.9	8
30	PCA Gaussianization for image processing. , 2009, , .		7
31	Large-scale random features for kernel regression. , 2015, , .		7
32	Spatial/spectral information trade-off in hyperspectral images. , 2015, , .		7
33	Improved Statistically Based Retrievals via Spatial-Spectral Data Compression for IASI Data. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 5651-5668.	2.7	7
34	Kernel methods and their derivatives: Concept and perspectives for the earth system sciences. PLoS ONE, 2020, 15, e0235885.	1.1	7
35	Nonlinear data description with Principal Polynomial Analysis. , 2012, , .		6
36	Kernel-based retrieval of atmospheric profiles from IASI data. , 2011, , .		5

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37	Lossless coding of hyperspectral images with principal polynomial analysis. , 2014, , .		5
38	Probabilistic cross-validation estimators for Gaussian process regression. , 2017, , .		5
39	PCA Gaussianization for one-class remote sensing image classification. Proceedings of SPIE, 2009, , .	0.8	4
40	Estimating biophysical variable dependences with kernels. , 2010, , .		4
41	Principal polynomial analysis for remote sensing data processing. , 2011, , .		4
42	Nonlinear statistical retrieval of surface emissivity from IASI data. , 2017, , .		4
43	Optimizing Kernel Ridge Regression for Remote Sensing Problems. , 2018, , .		4
44	Domain Adaptation of Landsat-8 and Proba-V Data Using Generative Adversarial Networks for Cloud Detection. , 2019, , .		4
45	Gaussianizing the Earth: Multidimensional information measures for Earth data analysis. IEEE Geoscience and Remote Sensing Magazine, 2021, 9, 191-208.	4.9	4
46	Complex-Valued Independent Component Analysis of Natural Images. Lecture Notes in Computer Science, 2011, , 213-220.	1.0	4
47	Recovering wavelet relations using SVM for image denoising. , 2008, , .		3
48	Including invariances in SVM remote sensing image classification. , 2012, , .		3
49	Dimensionality reduction via regression on hyperspectral infrared sounding data. , 2014, , .		3
50	Physics-Aware Gaussian Processes for Earth Observation. Lecture Notes in Computer Science, 2017, , 205-217.	1.0	3
51	Unsupervised Anomaly and Change Detection With Multivariate Gaussianization. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-10.	2.7	3
52	Adaptive kernel ridge regression for image denoising. , 2010, , .		2
53	Spatial noise-aware temperature retrieval from infrared sounder data. , 2017, , .		2
54	Efficient Kernel Cook's Distance for Remote Sensing Anomalous Change Detection. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 5480-5488.	2.3	2

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55	Inference over radiative transfer models using variational and expectation maximization methods. Machine Learning, 0, , 1.	3.4	2
56	Kernel Structural SIMIlarity on hyperspectral images. , 2013, , .		1
57	Disentangling Derivatives, Uncertainty and Error in Gaussian Process Models. , 2018, , .		1
58	Predicting perceptual distortion sensitivity with gain control models of LGN. Journal of Vision, 2017, 17, 776.	0.1	1
59	Enforcing perceptual consistency on Generative Adversarial Networks by using the Normalised Laplacian Pyramid Distance. Proceedings of the Northern Lights Deep Learning Workshop, 0, 1, 6.	0.0	1
60	Visual discrimination and adaptation using non-linear unsupervised learning. Proceedings of SPIE, 2013, , .	0.8	0
61	Chromatic induction and contrast masking: similar models, different goals?. , 2013, , .		0
62	Learning Structures in Earth Observation Data with Gaussian Processes. Lecture Notes in Computer Science, 2016, , 78-94.	1.0	0
63	Generation of Global Vegetation Products from Eumetsat AVHRR/METOP Satellites. , 2018, , .		0
64	Transfer Learning with Convolutional Networks for Atmospheric Parameter Retrieval. , 2018, , .		0
65	Consistent Regression of Biophysical Parameters with Kernel Methods. , 2018, , .		0
66	Statistical biophysical parameter retrieval and emulation with Gaussian processes. Data Handling in Science and Technology, 2020, 32, 333-368.	3.1	0
67	Visual Cortex Performs a Sort of Non-linear ICA. Lecture Notes in Computer Science, 2010, , 17-25.	1.0	0
68	Kernel methods and their derivatives: Concept and perspectives for the earth system sciences. , 2020, 15, e0235885.		0
69	Kernel methods and their derivatives: Concept and perspectives for the earth system sciences. , 2020, 15, e0235885.		0
70	Kernel methods and their derivatives: Concept and perspectives for the earth system sciences. , 2020, 15, e0235885.		0
71	Kernel methods and their derivatives: Concept and perspectives for the earth system sciences. , 2020, 15, e0235885.		0
72	Kernel methods and their derivatives: Concept and perspectives for the earth system sciences. , 2020, 15, e0235885.		0