Abderrahim Halimi

List of Publications by Year
in descending order

66 papers	1,930 citations	304743 22 h-index	454955 30 g-index
66 all docs	66 docs citations	66 times ranked	1016 citing authors

#	Article	IF	Citations
1	Nonlinear Unmixing of Hyperspectral Images Using a Generalized Bilinear Model. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4153-4162.	6.3	329
2	Single-photon three-dimensional imaging at up to 10 kilometers range. Optics Express, 2017, 25, 11919.	3.4	245
3	Supervised Nonlinear Spectral Unmixing Using a Postnonlinear Mixing Model for Hyperspectral Imagery. IEEE Transactions on Image Processing, 2012, 21, 3017-3025.	9.8	190
4	Three-dimensional single-photon imaging through obscurants. Optics Express, 2019, 27, 4590.	3.4	102
5	Object Depth Profile and Reflectivity Restoration From Sparse Single-Photon Data Acquired in Underwater Environments. IEEE Transactions on Computational Imaging, 2017, 3, 472-484.	4.4	78
6	High-resolution depth profiling using a range-gated CMOS SPAD quanta image sensor. Optics Express, 2018, 26, 5541.	3.4	75
7	Full Waveform LiDAR for Adverse Weather Conditions. IEEE Transactions on Vehicular Technology, 2020, 69, 7064-7077.	6.3	71
8	Hyperspectral Unmixing in Presence of Endmember Variability, Nonlinearity, or Mismodeling Effects. IEEE Transactions on Image Processing, 2016, 25, 4565-4579.	9.8	63
9	High-speed 3D sensing via hybrid-mode imaging and guided upsampling. Optica, 2020, 7, 1253.	9.3	58
10	Unsupervised Unmixing of Hyperspectral Images Accounting for Endmember Variability. IEEE Transactions on Image Processing, 2015, 24, 4904-4917.	9.8	53
11	Robust real-time 3D imaging of moving scenes through atmospheric obscurant using single-photon LiDAR. Scientific Reports, 2021, 11, 11236.	3.3	51
12	Fast Hyperspectral Unmixing in Presence of Nonlinearity or Mismodeling Effects. IEEE Transactions on Computational Imaging, 2017, 3, 146-159.	4.4	46
13	Long-range depth imaging using a single-photon detector array and non-local data fusion. Scientific Reports, 2019, 9, 8075.	3.3	46
14	3D LIDAR imaging using Ge-on-Si single–photon avalanche diode detectors. Optics Express, 2020, 28, 1330.	3.4	45
15	Unmixing hyperspectral images using the generalized bilinear model. , 2011, , .		44
16	Restoration of intensity and depth images constructed using sparse single-photon data. , 2016, , .		34
17	Parameter Estimation for Peaky Altimetric Waveforms. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 1568-1577.	6.3	32
18	A Semi-Analytical Model for Delay/Doppler Altimetry and Its Estimation Algorithm. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 4248-4258.	6.3	32

#	Article	IF	Citations
19	Robust Restoration of Sparse Multidimensional Single-Photon LiDAR Images. IEEE Transactions on Computational Imaging, 2020, 6, 138-152.	4.4	27
20	Learning Non-Local Spatial Correlations To Restore Sparse 3D Single-Photon Data. IEEE Transactions on Image Processing, 2020, 29, 3119-3131.	9.8	25
21	Robust super-resolution depth imaging via a multi-feature fusion deep network. Optics Express, 2021, 29, 11917.	3.4	24
22	Bayesian Estimation of Smooth Altimetric Parameters: Application to Conventional and Delay/Doppler Altimetry. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 2207-2219.	6.3	22
23	Correntropy Maximization via ADMM: Application to Robust Hyperspectral Unmixing. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 4944-4955.	6.3	22
24	Robust and Guided Bayesian Reconstruction of Single-Photon 3D Lidar Data: Application to Multispectral and Underwater Imaging. IEEE Transactions on Computational Imaging, 2021, 7, 961-974.	4.4	22
25	Supervised nonlinear spectral unmixing using a polynomial post nonlinear model for hyperspectral imagery. , 2011, , .		20
26	Estimating the Intrinsic Dimension of Hyperspectral Images Using a Noise-Whitened Eigengap Approach. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 3811-3821.	6.3	20
27	High-speed object detection with a single-photon time-of-flight image sensor. Optics Express, 2021, 29, 33184.	3.4	18
28	Including Antenna Mispointing in a Semi-Analytical Model for Delay/Doppler Altimetry. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 598-608.	6.3	15
29	Restoration of multilayered single-photon 3D Lidar images. , 2017, , .		12
30	Multivariate semi-blind deconvolution of fMRI time series. NeuroImage, 2021, 241, 118418.	4.2	12
31	Sparsity-based Blind Deconvolution of Neural Activation Signal in FMRI. , 2019, , .		11
32	Efficient Range Estimation and Material Quantification from Multispectral Lidar Waveforms. , 2016, , .		9
33	A Bayesian Based Deep Unrolling Algorithm for Single-Photon Lidar Systems. IEEE Journal on Selected Topics in Signal Processing, 2022, 16, 762-774.	10.8	9
34	Nonlinear unmixing of hyperspectral images using a generalized bilinear model. , 2011, , .		6
35	A post nonlinear mixing model for hyperspectral images unmixing. , 2011, , .		6
36	Depth imaging in highly scattering underwater environments using time-correlated single-photon counting. Proceedings of SPIE, 2016, , .	0.8	6

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37	Fast Adaptive Scene Sampling for Single-Photon 3D Lidar Images. , 2019, , .		6
38	Unmixing multitemporal hyperspectral images accounting for endmember variability. , 2015, , .		5
39	Nonlinear regression using smooth Bayesian estimation. , 2015, , .		5
40	A new Bayesian unmixing algorithm for hyperspectral images mitigating endmember variability. , 2015, , .		5
41	Denoising Smooth Signals Using a Bayesian Approach: Application to Altimetry. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 1278-1289.	4.9	5
42	Fast Task-Based Adaptive Sampling for 3D Single-Photon Multispectral Lidar Data. IEEE Transactions on Computational Imaging, 2022, 8, 174-187.	4.4	5
43	A new model for peaky altimetric waveforms. , 2011, , .		3
44	Robust Unmixing Algorithms for Hyperspectral Imagery. , 2016, , .		3
45	Fast Surface Detection Using Single-Photon Detection Events. , 2020, , .		3
46	Restoration of depth and intensity images using a graph laplacian regularization. , 2017, , .		2
47	Underwater Three-Dimensional Imaging using Single-Photon Detection. , 2017, , .		2
48	A generalized semi-analytical model for delay/Doppler altimetry. , 2014, , .		1
49	Restoration of Multilayered Single-Photon 3D Lidar Images. , 2018, , .		1
50	Non-Local Restoration Of Sparse 3d Single-Photon Data. , 2019, , .		1
51	Single-photon lidar used in extreme imaging scenarios. , 2021, , .		1
52	Comparative assessment of different active imaging technologies for imaging through obscurants. , 2018, , .		1
53	Ge-on-Si Single Photon Avalanche Diode Detectors for LIDAR in the Short Wave Infrared. , 2020, , .		1
54	Hyperspectral unmixing accounting for spatial correlations and endmember variability. , 2015, , .		0

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55	Filtering smooth altimetric signals using a Bayesian algorithm. , 2016, , .		0
56	ADMM for maximum correntropy criterion. , 2016, , .		0
57	Robust hyperspectral unmixing accounting for residual components. , 2016, , .		0
58	Nonlinear hyperspectral unmixing accounting for spatial illumination variability. , 2016, , .		0
59	Fast hyperspectral unmixing in presence of sparse multiple scattering nonlinearities. , 2017, , .		0
60	Three-Dimensional Imaging Under Extreme Conditions Using Single-Photon Counting. , 2018, , .		0
61	Joint Reconstruction of Multitemporal or Multispectral Single-Photon 3D LiDAR Images. , 2019, , .		0
62	fMRI BOLD signal decomposition using a multivariate low-rank model. , 2019, , .		0
63	Fast Classification and Depth Estimation for Multispectral Single-Photon LiDAR Data. , 2021, , .		0
64	Depth imaging through obscurants using time-correlated single-photon counting. , 2018, , .		0
65	Robust and Guided Super-resolution for Single-Photon Depth Imaging via a Deep Network. , 2021, , .		0
66	Robust Bayesian Reconstruction of Multispectral Single-Photon 3D Lidar Data with Non-Uniform Background. , 2022, , .		0