

Yoann Altmann

List of Publications by Year in descending order

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Version: 2024-02-01

92
papers

2,290
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304743

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1338
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#	ARTICLE	IF	CITATIONS
1	Probabilistic Generative Model for Hyperspectral Unmixing Accounting for Endmember Variability. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-15.	6.3	7
2	Sparse Linear Spectral Unmixing of Hyperspectral Images Using Expectation-Propagation. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-13.	6.3	4
3	Patch-Based Image Restoration Using Expectation Propagation. SIAM Journal on Imaging Sciences, 2022, 15, 192-227.	2.2	4
4	Compressive hyperspectral imaging in the molecular fingerprint band. Optics Express, 2022, 30, 17340.	3.4	6
5	Deep Generative Model for Spatial Spectral Unmixing With Multiple Endmember Priors. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	6.3	7
6	Semi-Supervised Gaussian Mixture Variational Autoencoder for Pulse Shape Discrimination. , 2022, , .		2
7	Robust 3D Reconstruction of Dynamic Scenes From Single-Photon Lidar Using Beta-Divergences. IEEE Transactions on Image Processing, 2021, 30, 1716-1727.	9.8	11
8	Quantitative imaging and automated fuel pin identification for passive gamma emission tomography. Scientific Reports, 2021, 11, 2442.	3.3	9
9	Resource-efficient adaptive Bayesian tracking of magnetic fields with a quantum sensor. Journal of Physics Condensed Matter, 2021, 33, 195801.	1.8	4
10	Simultaneous multi-spectral, single-photon fluorescence imaging using a plasmonic colour filter array. Journal of Biophotonics, 2021, 14, e202000505.	2.3	4
11	Edge-Resolved Transient Imaging: Performance Analyses, Optimizations, and Simulations. , 2021, , .		1
12	Robust Linear Regression and Anomaly Detection in the Presence of Poisson Noise Using Expectation-Propagation. Lecture Notes in Mechanical Engineering, 2021, , 143-158.	0.4	0
13	Hypersphere Fitting From Noisy Data Using an EM Algorithm. IEEE Signal Processing Letters, 2021, 28, 314-318.	3.6	12
14	Single-photon lidar used in extreme imaging scenarios. , 2021, , .		1
15	Bayesian Activity Estimation and Uncertainty Quantification of Spent Nuclear Fuel Using Passive Gamma Emission Tomography. Journal of Imaging, 2021, 7, 212.	3.0	2
16	Compressive Spectroscopic Long-Wave Infrared Imaging. , 2021, , .		0
17	Robust Hypersphere Fitting from Noisy Data Using an EM Algorithm. , 2021, , .		1
18	Blind deconvolution of images corrupted by Gaussian noise using Expectation Propagation. , 2021, , .		0

#	ARTICLE	IF	CITATIONS
19	Bayesian 3D Reconstruction of Subsampled Multispectral Single-Photon Lidar Signals. IEEE Transactions on Computational Imaging, 2020, 6, 208-220.	4.4	19
20	Fast Online 3D Reconstruction of Dynamic Scenes From Individual Single-Photon Detection Events. IEEE Transactions on Image Processing, 2020, 29, 2666-2675.	9.8	19
21	High-speed particle detection and tracking in microfluidic devices using event-based sensing. Lab on A Chip, 2020, 20, 3024-3035.	6.0	14
22	Seeing around corners with edge-resolved transient imaging. Nature Communications, 2020, 11, 5929.	12.8	33
23	Expectation-propagation for weak radionuclide identification at radiation portal monitors. Scientific Reports, 2020, 10, 6811.	3.3	4
24	Expectation-Maximization Based Approach to 3D Reconstruction From Single-Waveform Multispectral Lidar Data. IEEE Transactions on Computational Imaging, 2020, 6, 1033-1043.	4.4	6
25	Advances in Single-Photon Lidar for Autonomous Vehicles: Working Principles, Challenges, and Recent Advances. IEEE Signal Processing Magazine, 2020, 37, 62-71.	5.6	66
26	Ultralow-light-level color image reconstruction using high-efficiency plasmonic metasurface mosaic filters. Optica, 2020, 7, 632.	9.3	28
27	Sparse Spectral Unmixing of Hyperspectral Images using Expectation-Propagation. , 2020, , .		1
28	Attenuation and Scattering Correction in Passive Gamma Emission Tomography Reconstruction. , 2020, , .		0
29	Bayesian bacterial detection using irregularly sampled optical endomicroscopy images. Medical Image Analysis, 2019, 57, 18-31.	11.6	5
30	Real-time 3D reconstruction from single-photon lidar data using plug-and-play point cloud denoisers. Nature Communications, 2019, 10, 4984.	12.8	123
31	A Hierarchical Bayesian Approach to Neutron Spectrum Unfolding With Organic Scintillators. IEEE Transactions on Nuclear Science, 2019, 66, 2265-2274.	2.0	13
32	Expectation-propagation Algorithms for Linear Regression with Poisson Noise: Application to Photon-limited Spectral Unmixing. , 2019, , .		6
33	A novel algorithm for the identification of dirac impulses from filtered noisy measurements. Signal Processing, 2019, 162, 268-281.	3.7	3
34	Bayesian 3D Reconstruction of Complex Scenes from Single-Photon Lidar Data. SIAM Journal on Imaging Sciences, 2019, 12, 521-550.	2.2	70
35	Characterising cross-coupling in coherent fibre bundles. , 2019, , .		2
36	On fast object detection using single-photon lidar data. , 2019, , .		5

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37	Underwater depth imaging using time-correlated single-photon counting at video frame rates. , 2019, , .		1
38	Enhancing the recovery of a temporal sequence of images using joint deconvolution. Scientific Reports, 2018, 8, 5257.	3.3	3
39	Deconvolution and Restoration of Optical Endomicroscopy Images. IEEE Transactions on Computational Imaging, 2018, 4, 194-205.	4.4	13
40	Deconvolution of Irregularly Subsampled Images. , 2018, , .		1
41	ANOMALY DETECTION WITH HIGH RESOLUTION HYPERSPECTRAL OBSERVATIONS. , 2018, , .		0
42	Range Estimation from Single-Photon Lidar Data Using a Stochastic Em Approach. , 2018, , .		13
43	Spectral classification of sparse photon depth images. Optics Express, 2018, 26, 5514.	3.4	17
44	High-resolution depth profiling using a range-gated CMOS SPAD quanta image sensor. Optics Express, 2018, 26, 5541.	3.4	75
45	Three-Dimensional Imaging Under Extreme Conditions Using Single-Photon Counting. , 2018, , .		0
46	Quantum-inspired computational imaging. Science, 2018, 361, .	12.6	134
47	Multifractal Analysis of Multivariate Images Using Gamma Markov Random Field Priors. SIAM Journal on Imaging Sciences, 2018, 11, 1294-1316.	2.2	9
48	Wavelength-time coding for multispectral 3D imaging using single-photon LiDAR. Optics Express, 2018, 26, 30146.	3.4	25
49	Automated Detection of Uninformative Frames in Pulmonary Optical Endomicroscopy. IEEE Transactions on Biomedical Engineering, 2017, 64, 87-98.	4.2	17
50	A Bayesian Approach to Denoising of Single-Photon Binary Images. IEEE Transactions on Computational Imaging, 2017, 3, 460-471.	4.4	19
51	Observation of laser pulse propagation in optical fibers with a SPAD camera. Scientific Reports, 2017, 7, 43302.	3.3	14
52	Robust Spectral Unmixing of Sparse Multispectral Lidar Waveforms Using Gamma Markov Random Fields. IEEE Transactions on Computational Imaging, 2017, 3, 658-670.	4.4	30
53	Comparative study of sampling strategies for sparse photon multispectral lidar imaging: towards mosaic filter arrays. Journal of Optics (United Kingdom), 2017, 19, 094006.	2.2	23
54	Restoration of depth and intensity images using a graph laplacian regularization. , 2017, , .		2

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55	Characterization and modelling of inter-core coupling in coherent fiber bundles. Optics Express, 2017, 25, 11932.	3.4	24
56	Fast tracking of hidden objects with single-pixel detectors. Electronics Letters, 2017, 53, 1005-1008.	1.0	12
57	Unsupervised restoration of subsampled images constructed from geometric and binomial data. , 2017, , .		0
58	Restoration of intensity and depth images constructed using sparse single-photon data. , 2016, , .		34
59	Joint spectral clustering and range estimation for 3D scene reconstruction using multispectral lidar waveforms. , 2016, , .		8
60	Linear and Nonlinear Unmixing in Hyperspectral Imaging. Data Handling in Science and Technology, 2016, 30, 185-224.	3.1	38
61	Target detection for depth imaging using sparse single-photon data. , 2016, , .		10
62	Robust Markov Random Field outlier detection and removal in subsampled images. , 2016, , .		2
63	Robust Unmixing Algorithms for Hyperspectral Imagery. , 2016, , .		3
64	Joint range estimation and spectral classification for 3D scene reconstruction using multispectral Lidar waveforms. , 2016, , .		6
65	Robust Bayesian target detection algorithm for depth imaging from sparse single-photon data. IEEE Transactions on Computational Imaging, 2016, , 1-1.	4.4	19
66	Efficient Range Estimation and Material Quantification from Multispectral Lidar Waveforms. , 2016, , .		9
67	Lidar Waveform-Based Analysis of Depth Images Constructed Using Sparse Single-Photon Data. IEEE Transactions on Image Processing, 2016, 25, 1935-1946.	9.8	110
68	Robust linear spectral unmixing using outlier detection. , 2015, , .		2
69	Linear spectral unmixing using collaborative sparse regression and correlated supports. , 2015, , .		0
70	Bayesian Nonlinear Hyperspectral Unmixing With Spatial Residual Component Analysis. IEEE Transactions on Computational Imaging, 2015, 1, 174-185.	4.4	28
71	Nonlinear spectral unmixing using residual component analysis and a Gamma Markov random field. , 2015, , .		0
72	Collaborative sparse regression using spatially correlated supports - Application to hyperspectral unmixing. IEEE Transactions on Image Processing, 2015, 24, 5800-5811.	9.8	32

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73	Robust Linear Spectral Unmixing Using Anomaly Detection. IEEE Transactions on Computational Imaging, 2015, 1, 74-85.	4.4	41
74	Spectral Unmixing of Multispectral Lidar Signals. IEEE Transactions on Signal Processing, 2015, 63, 5525-5534.	5.3	20
75	Residual component analysis of hyperspectral images for joint nonlinear unmixing and nonlinearity detection. , 2014, , .		2
76	Nonlinear spectral unmixing of hyperspectral images using residual component analysis. , 2014, , .		0
77	Residual Component Analysis of Hyperspectral Images – Application to Joint Nonlinear Unmixing and Nonlinearity Detection. IEEE Transactions on Image Processing, 2014, 23, 2148-2158.	9.8	84
78	Unsupervised Post-Nonlinear Unmixing of Hyperspectral Images Using a Hamiltonian Monte Carlo Algorithm. IEEE Transactions on Image Processing, 2014, 23, 2663-2675.	9.8	110
79	Sampling from a multivariate Gaussian distribution truncated on a simplex: A review. , 2014, , .		14
80	A Comparison of Nonlinear Mixing Models for Vegetated Areas Using Simulated and Real Hyperspectral Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1869-1878.	4.9	42
81	Nonlinear unmixing of vegetated areas: A model comparison based on simulated and real hyperspectral data. , 2014, , .		0
82	Nonlinearity Detection in Hyperspectral Images Using a Polynomial Post-Nonlinear Mixing Model. IEEE Transactions on Image Processing, 2013, 22, 1267-1276.	9.8	35
83	Nonlinear Spectral Unmixing of Hyperspectral Images Using Gaussian Processes. IEEE Transactions on Signal Processing, 2013, 61, 2442-2453.	5.3	91
84	Unsupervised nonlinear unmixing of hyperspectral images using Gaussian processes. , 2012, , .		3
85	Detecting nonlinear mixtures in hyperspectral images. , 2012, , .		3
86	Supervised Nonlinear Spectral Unmixing Using a Postnonlinear Mixing Model for Hyperspectral Imagery. IEEE Transactions on Image Processing, 2012, 21, 3017-3025.	9.8	190
87	Bilinear models for nonlinear unmixing of hyperspectral images. , 2011, , .		25
88	Nonlinear Unmixing of Hyperspectral Images Using a Generalized Bilinear Model. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4153-4162.	6.3	329
89	Nonlinear unmixing of hyperspectral images using a generalized bilinear model. , 2011, , .		6
90	A post nonlinear mixing model for hyperspectral images unmixing. , 2011, , .		6

#	ARTICLE	IF	CITATIONS
91	Supervised nonlinear spectral unmixing using a polynomial post nonlinear model for hyperspectral imagery. , 2011, , .		20
92	Unmixing hyperspectral images using the generalized bilinear model. , 2011, , .		44