

# Christian Jutten

## List of Publications by Year in descending order

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Version: 2024-02-01

93  
papers

7,506  
citations

159585

30  
h-index

66911

78  
g-index

95  
all docs

95  
docs citations

95  
times ranked

5506  
citing authors

#	ARTICLE	IF	CITATIONS
1	Blind separation of sources, part I: An adaptive algorithm based on neuromimetic architecture. Signal Processing, 1991, 24, 1-10.	3.7	2,129
2	Multimodal Data Fusion: An Overview of Methods, Challenges, and Prospects. Proceedings of the IEEE, 2015, 103, 1449-1477.	21.3	638
3	Multiclass Brain-Computer Interface Classification by Riemannian Geometry. IEEE Transactions on Biomedical Engineering, 2012, 59, 920-928.	4.2	520
4	A Nonlinear Bayesian Filtering Framework for ECG Denoising. IEEE Transactions on Biomedical Engineering, 2007, 54, 2172-2185.	4.2	398
5	Blind separation of sources, part II: Problems statement. Signal Processing, 1991, 24, 11-20.	3.7	336
6	Hyperspectral Image Classification With Independent Component Discriminant Analysis. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4865-4876.	6.3	325
7	Classification of covariance matrices using a Riemannian-based kernel for BCI applications. Neurocomputing, 2013, 112, 172-178.	5.9	305
8	Neural networks in geophysical applications. Geophysics, 2000, 65, 1032-1047.	2.6	281
9	Blind source separation for convolutive mixtures. Signal Processing, 1995, 45, 209-229.	3.7	229
10	Transfer Learning: A Riemannian Geometry Framework With Applications to Brain-Computer Interfaces. IEEE Transactions on Biomedical Engineering, 2018, 65, 1107-1116.	4.2	222
11	Blind Hyperspectral Unmixing Using an Extended Linear Mixing Model to Address Spectral Variability. IEEE Transactions on Image Processing, 2016, 25, 3890-3905.	9.8	167
12	Multichannel Electrocardiogram Decomposition Using Periodic Component Analysis. IEEE Transactions on Biomedical Engineering, 2008, 55, 1935-1940.	4.2	157
13	Riemannian Procrustes Analysis: Transfer Learning for Brain-Computer Interfaces. IEEE Transactions on Biomedical Engineering, 2019, 66, 2390-2401.	4.2	128
14	ADVANCES IN BLIND SOURCE SEPARATION (BSS) AND INDEPENDENT COMPONENT ANALYSIS (ICA) FOR NONLINEAR MIXTURES. International Journal of Neural Systems, 2004, 14, 267-292.	5.2	118
15	On the blind source separation of human electroencephalogram by approximate joint diagonalization of second order statistics. Clinical Neurophysiology, 2008, 119, 2677-2686.	1.5	111
16	Spectral Variability in Hyperspectral Data Unmixing: A comprehensive review. IEEE Geoscience and Remote Sensing Magazine, 2021, 9, 223-270.	9.6	92
17	Touch increases autonomic coupling between romantic partners. Frontiers in Behavioral Neuroscience, 2014, 8, 95.	2.0	84
18	An Iterative Bayesian Algorithm for Sparse Component Analysis in Presence of Noise. IEEE Transactions on Signal Processing, 2009, 57, 4378-4390.	5.3	74

#	ARTICLE	IF	CITATIONS
19	Dictionary Learning for Sparse Representation: A Novel Approach. IEEE Signal Processing Letters, 2013, 20, 1195-1198.	3.6	72
20	Three easy ways for separating nonlinear mixtures?. Signal Processing, 2004, 84, 217-229.	3.7	70
21	Hyperspectral Image Unmixing With Endmember Bundles and Group Sparsity Inducing Mixed Norms. IEEE Transactions on Image Processing, 2019, 28, 3435-3450.	9.8	68
22	A general approach for mutual information minimization and its application to blind source separation. Signal Processing, 2005, 85, 975-995.	3.7	52
23	Dynamical Spectral Unmixing of Multitemporal Hyperspectral Images. IEEE Transactions on Image Processing, 2016, 25, 3219-3232.	9.8	52
24	Estimating the mixing matrix in Sparse Component Analysis (SCA) based on partial k-dimensional subspace clustering. Neurocomputing, 2008, 71, 2330-2343.	5.9	51
25	Log-Rayleigh Distribution: A Simple and Efficient Statistical Representation of Log-Spectral Coefficients. IEEE Transactions on Audio Speech and Language Processing, 2007, 15, 796-802.	3.2	45
26	A Bayesian Nonlinear Source Separation Method for Smart Ion-Selective Electrode Arrays. IEEE Sensors Journal, 2009, 9, 1763-1771.	4.7	44
27	Visual voice activity detection as a help for speech source separation from convolutive mixtures. Speech Communication, 2007, 49, 667-677.	2.8	35
28	Developing an audio-visual speech source separation algorithm. Speech Communication, 2004, 44, 113-125.	2.8	32
29	ECG segmentation and fiducial point extraction using multi hidden Markov model. Computers in Biology and Medicine, 2016, 79, 21-29.	7.0	32
30	A study of lip movements during spontaneous dialog and its application to voice activity detection. Journal of the Acoustical Society of America, 2009, 125, 1184-1196.	1.1	31
31	On the Stable Recovery of the Sparsest Overcomplete Representations in Presence of Noise. IEEE Transactions on Signal Processing, 2010, 58, 5396-5400.	5.3	31
32	Non-local mind from the perspective of social cognition. Frontiers in Human Neuroscience, 2013, 7, 107.	2.0	31
33	ECG denoising and fiducial point extraction using an extended Kalman filtering framework with linear and nonlinear phase observations. Physiological Measurement, 2016, 37, 203-226.	2.1	28
34	Sparse ICA via cluster-wise PCA. Neurocomputing, 2006, 69, 1458-1466.	5.9	26
35	Spectral Variability Aware Blind Hyperspectral Image Unmixing Based on Convex Geometry. IEEE Transactions on Image Processing, 2020, 29, 4568-4582.	9.8	24
36	ISFET source separation: Foundations and techniques. Sensors and Actuators B: Chemical, 2006, 113, 222-233.	7.8	23

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37	Joint Independent Subspace Analysis Using Second-Order Statistics. IEEE Transactions on Signal Processing, 2016, 64, 4891-4904.	5.3	23
38	Blind source separation of underdetermined mixtures of event-related sources. Signal Processing, 2014, 101, 52-64.	3.7	22
39	Blind source separation and feature extraction in concurrent control charts pattern recognition: Novel analyses and a comparison of different methods. Computers and Industrial Engineering, 2016, 92, 105-114.	6.3	22
40	Parametric approach to blind deconvolution of nonlinear channels. Neurocomputing, 2002, 48, 339-355.	5.9	20
41	Blind Compensation of Nonlinear Distortions: Application to Source Separation of Post-Nonlinear Mixtures. IEEE Transactions on Signal Processing, 2012, 60, 5832-5844.	5.3	20
42	Delve into Multiple Sclerosis (MS) lesion exploration: A modified attention U-Net for MS lesion segmentation in Brain MRI. Computers in Biology and Medicine, 2022, 145, 105402.	7.0	20
43	Spectral Unmixing: A Derivation of the Extended Linear Mixing Model From the Hapke Model. IEEE Geoscience and Remote Sensing Letters, 2020, 17, 1866-1870.	3.1	19
44	Application of Blind Source Separation Methods to Ion-Selective Electrode Arrays in Flow-Injection Analysis. IEEE Sensors Journal, 2014, 14, 2228-2229.	4.7	18
45	Blind Source Separation in Nonlinear Mixtures: Separability and a Basic Algorithm. IEEE Transactions on Signal Processing, 2017, 65, 4339-4352.	5.3	17
46	Criteria based on mutual information minimization for blind source separation in post nonlinear mixtures. Signal Processing, 2005, 85, 965-974.	3.7	15
47	ECG fiducial point extraction using switching Kalman filter. Computer Methods and Programs in Biomedicine, 2018, 157, 129-136.	4.7	15
48	A second-order statistics method for blind source separation in post-nonlinear mixtures. Signal Processing, 2019, 155, 63-72.	3.7	14
49	Relationships Between Nonlinear and Space-Variant Linear Models in Hyperspectral Image Unmixing. IEEE Signal Processing Letters, 2017, 24, 1567-1571.	3.6	12
50	Temporally Nonstationary Component Analysis; Application to Noninvasive Fetal Electrocardiogram Extraction. IEEE Transactions on Biomedical Engineering, 2020, 67, 1377-1386.	4.2	12
51	Band-Stop Smoothing Filter Design. IEEE Transactions on Signal Processing, 2021, 69, 1797-1810.	5.3	12
52	A Dataset for the Design of Smart Ion-Selective Electrode Arrays for Quantitative Analysis. IEEE Sensors Journal, 2010, 10, 1891-1892.	4.7	10
53	Hyperspectral Local Intrinsic Dimensionality. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 4063-4078.	6.3	10
54	Multimodal Soft Nonnegative Matrix Co-Factorization for Convolutional Source Separation. IEEE Transactions on Signal Processing, 2017, 65, 3179-3190.	5.3	10

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55	Dimensionality Transcending: A Method for Merging BCI Datasets With Different Dimensionalities. IEEE Transactions on Biomedical Engineering, 2021, 68, 673-684.	4.2	10
56	Forward-backward filtering and penalized least-Squares optimization: A Unified framework. Signal Processing, 2021, 178, 107796.	3.7	10
57	Hyperspectral unmixing with material variability using social sparsity. , 2016, , .		9
58	Joint Independent Subspace Analysis: Uniqueness and Identifiability. IEEE Transactions on Signal Processing, 2019, 67, 684-699.	5.3	8
59	On the Cram�r-Rao Bound for Estimating the Mixing Matrix in Noisy Sparse Component Analysis. IEEE Signal Processing Letters, 2008, 15, 609-612.	3.6	7
60	Reference-Based Source Separation Method For Identification of Brain Regions Involved in a Reference State From Intracerebral EEG. IEEE Transactions on Biomedical Engineering, 2013, 60, 1983-1992.	4.2	7
61	A robust ellipse fitting algorithm based on sparsity of outliers. , 2017, , .		7
62	Joint Independent Subspace Analysis: Quasi-Newton Algorithm. Lecture Notes in Computer Science, 2015, , 111-118.	1.3	7
63	On the Error of Estimating the Sparsest Solution of Underdetermined Linear Systems. IEEE Transactions on Information Theory, 2011, 57, 7840-7855.	2.4	6
64	Multivariate Time-Series Analysis Via Manifold Learning. , 2018, , .		6
65	Improved smoothness priors using bilinear transform. Signal Processing, 2020, 169, 107381.	3.7	6
66	Variability of the endmembers in spectral unmixing. Data Handling in Science and Technology, 2020, , 167-203.	3.1	6
67	ISI sparse channel estimation based on SLO and its application in ML sequence-by-sequence equalization. Signal Processing, 2012, 92, 1875-1885.	3.7	5
68	3-D Interface for the P300 Speller BCI. IEEE Transactions on Human-Machine Systems, 2020, 50, 604-612.	3.5	5
69	Robust Sensor Placement for Signal Extraction. IEEE Transactions on Signal Processing, 2021, 69, 4513-4528.	5.3	5
70	Stability study for source separation in convolutive mixtures of two sources. Signal Processing, 1997, 62, 163-171.	3.7	4
71	Quasi-optimal EASI algorithm based on the Score Function Difference (SFD). Neurocomputing, 2006, 69, 1415-1424.	5.9	4
72	Joint analysis of multiple datasets by cross-cumulant tensor (block) diagonalization. , 2016, , .		4

#	ARTICLE	IF	CITATIONS
73	An alternative proof for the identifiability of independent vector analysis using second order statistics. , 2016, , .		4
74	Informationâ€“Estimation Relationship in Mismatched Gaussian Channels. IEEE Signal Processing Letters, 2017, 24, 688-692.	3.6	4
75	Optimal Sensor Placement for Signal Extraction. , 2019, , .		4
76	Capacity and Limits of Multimodal Remote Sensing: Theoretical Aspects and Automatic Information Theory-Based Image Selection. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 5598-5618.	6.3	4
77	Geometric Multimodal Learning Based on Local Signal Expansion for Joint Diagonalization. IEEE Transactions on Signal Processing, 2021, 69, 1271-1286.	5.3	4
78	CorrIndex: A permutation invariant performance index. Signal Processing, 2022, 195, 108457.	3.7	4
79	A New Link Between Joint Blind Source Separation Using Second Order Statistics and the Canonical Polyadic Decomposition. Lecture Notes in Computer Science, 2018, , 171-180.	1.3	3
80	General conditions of stability in blind source separation models and score function selection. Neurocomputing, 2004, 62, 65-78.	5.9	2
81	Correction to â€œDynamical Spectral Unmixing of Multitemporal Hyperspectral Imagesâ€“[Jul 16 3219-3232]. IEEE Transactions on Image Processing, 2016, 25, 4443-4443.	9.8	2
82	Joint Independent Subspace Analysis by Coupled Block Decomposition: Non-Identifiable Cases. , 2018, , .		1
83	Schur's Lemma for Coupled Reducibility and Coupled Normality. SIAM Journal on Matrix Analysis and Applications, 2019, 40, 998-1021.	1.4	1
84	Gradient-Based Algorithm with Spatial Regularization for Optimal Sensor Placement. , 2020, , .		1
85	Introducing SPM's New Team of Area Editors: Part 1 [From the Editor]. IEEE Signal Processing Magazine, 2021, 38, 3-5.	5.6	1
86	On Enhanced Ensemble Learning for Multimodal Remote Sensing Data Analysis by Capacity Optimization. , 2021, , .		1
87	Affects and Emotions in <i>IEEE Signal Processing Magazine</i> [From the Editor]. IEEE Signal Processing Magazine, 2021, 38, 3-4.	5.6	1
88	Introducing SPM's New Team of Area Editors: Part 2 [From the Editor]. IEEE Signal Processing Magazine, 2021, 38, 3-5.	5.6	0
89	A Hypothesis Testing Approach to Nonstationary Source Separation. , 2021, , .		0
90	Advances in Science Must Benefit All Humanity [From the Editor]. IEEE Signal Processing Magazine, 2021, 38, 3-11.	5.6	0

#	ARTICLE	IF	CITATIONS
91	Think Outside the Box! [From the Editor]. IEEE Signal Processing Magazine, 2021, 38, 3-3,5.	5.6	0
92	Sélection de capteurs pour interfaces cerveau-ordinateur de type P300. Traitement Du Signal, 2010, 27, 515-540.	1.3	0
93	Ethical Dilemmas in the Sciences [From the Editor]. IEEE Signal Processing Magazine, 2022, 39, 3-4.	5.6	0