

Ali Taylan Cemgil

List of Publications by Year in descending order

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128
papers

1,477
citations

516215

16
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395343

33
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132
all docs

132
docs citations

132
times ranked

1230
citing authors

#	ARTICLE	IF	CITATIONS
1	An indoor localization dataset and data collection framework with high precision position annotation. <i>Pervasive and Mobile Computing</i> , 2022, 81, 101554.	2.1	11
2	Adaptive Sequential Monte Carlo Filter for Indoor Positioning and Tracking With Bluetooth Low Energy Beacons. <i>IEEE Access</i> , 2021, 9, 37022-37038.	2.6	17
3	Bayesian Allocation Model: Marginal Likelihood-Based Model Selection for Count Tensors. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2021, 15, 560-573.	7.3	2
4	Forecasting intermittent and sparse time series: A unified probabilistic framework via deep renewal processes. <i>PLoS ONE</i> , 2021, 16, e0259764.	1.1	9
5	Parallelizing particle filters with butterfly interactions. <i>Scandinavian Journal of Statistics</i> , 2020, 47, 361-396.	0.9	5
6	Clustering Event Streams With Low Rank Hawkes Processes. <i>IEEE Signal Processing Letters</i> , 2020, 27, 1575-1579.	2.1	4
7	Data Sharing via Differentially Private Coupled Matrix Factorization. <i>ACM Transactions on Knowledge Discovery From Data</i> , 2020, 14, 1-27.	2.5	9
8	Audio Source Separation Using Variational Autoencoders and Weak Class Supervision. <i>IEEE Signal Processing Letters</i> , 2019, 26, 1349-1353.	2.1	16
9	Estimating Network Flow Length Distributions via Bayesian Nonnegative Tensor Factorization. <i>Wireless Communications and Mobile Computing</i> , 2019, 2019, 1-17.	0.8	1
10	Gaussian process and design of experiments for surrogate modeling of optical properties of fractal aggregates. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019, 239, 106643.	1.1	6
11	Discriminative tensor decomposition with large margin. , 2019, 95, 102584.		2
12	A framework for parallel second order incremental optimization algorithms for solving partially separable problems. <i>Computational Optimization and Applications</i> , 2019, 72, 675-705.	0.9	1
13	Efficient Bayesian Model Selection in PARAFAC via Stochastic Thermodynamic Integration. <i>IEEE Signal Processing Letters</i> , 2018, 25, 725-729.	2.1	2
14	A real-time SIP network simulation and monitoring system. <i>SoftwareX</i> , 2018, 8, 21-25.	1.2	1
15	Multiresolution alignment for multiple unsynchronized audio sequences using Sequential Monte Carlo samplers. <i>SoftwareX</i> , 2018, 8, 33-38.	1.2	0
16	Multitarget tracking performance metric: deficiency aware subpattern assignment. <i>IET Radar, Sonar and Navigation</i> , 2018, 12, 373-381.	0.9	4
17	Approximate Bayesian computation techniques for optical characterization of nanoparticle clusters. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2018, 35, 88.	0.8	7
18	Sum Conditioned Poisson Factorization. <i>Lecture Notes in Computer Science</i> , 2018, , 24-35.	1.0	2

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19	Parallelized Stochastic Gradient Markov Chain Monte Carlo algorithms for non-negative matrix factorization. , 2017, , .		1
20	Malicious users discrimination in organized attacks using structured sparsity. , 2017, , .		1
21	Distributed particle filtering under real-time constraints. , 2017, , .		0
22	Model-Based Localization and Tracking Using Bluetooth Low-Energy Beacons. Sensors, 2017, 17, 2484.	2.1	68
23	Change-point detection via switching Kalman filters. , 2017, , .		0
24	A probabilistic SIP network simulation system. , 2016, , .		0
25	Detection of (D)DOS attacks based on online change point analysis. , 2016, , .		3
26	Attack detection in VOIP networks using Bayesian multiple change-point models. , 2016, , .		2
27	A generalized Bayesian model for tracking long metrical cycles in acoustic music signals. , 2016, , .		5
28	Joint parameter and state estimation of the hemodynamic model by iterative extended Kalman smoother. Biomedical Signal Processing and Control, 2016, 24, 47-62.	3.5	7
29	Joint state and parameter estimation of the hemodynamic model by particle smoother expectation maximization method. Journal of Neural Engineering, 2016, 13, 046010.	1.8	3
30	Model based multiple musical sequence alignment using tempo extraction as preprocessing. , 2016, , .		0
31	The comparison of the performances of global nearest neighbor and probability hypothesis density filter for varying clutter rates. , 2016, , .		4
32	Text classification with coupled matrix factorization. , 2016, , .		0
33	A Network Monitoring System for High Speed Network Traffic. , 2016, , .		9
34	CLUSTERnGO: a user-defined modelling platform for two-stage clustering of time-series data. Bioinformatics, 2016, 32, 388-397.	1.8	7
35	Stochastic thermodynamic integration: Efficient Bayesian model selection via stochastic gradient MCMC. , 2016, , .		0
36	A practical introduction to butterfly and adaptive resampling in Sequential Monte Carlo. IFAC-PapersOnLine, 2015, 48, 787-792.	0.5	1

#	ARTICLE	IF	CITATIONS
37	Section-level modeling of musical audio for linking performances to scores in Turkish makam music. , 2015, , .		0
38	Learning mixed divergences in coupled matrix and tensor factorization models. , 2015, , .		7
39	Dialogue enhancement using kernel additive modelling. , 2015, , .		0
40	DRENAJ: Distributed social media data collection system. , 2015, , .		1
41	Bayesian changepoint and time-varying parameter learning in regime switching volatility models. , 2015, 40, 198-212.		4
42	An application of deep learning for trade signal prediction in financial markets. , 2015, , .		9
43	Inferring Metrical Structure in Music Using Particle Filters. IEEE/ACM Transactions on Audio Speech and Language Processing, 2015, , 1-1.	4.0	7
44	Alpha-Stable Matrix Factorization. IEEE Signal Processing Letters, 2015, 22, 2289-2293.	2.1	27
45	A Probabilistic Model Based Approach For Aligning Multiple Audio Sequences. IEEE/ACM Transactions on Audio Speech and Language Processing, 2015, , 1-1.	4.0	3
46	Non-negative tensor factorization models for Bayesian audio processing. , 2015, 47, 178-191.		11
47	Link prediction in heterogeneous data via generalized coupled tensor factorization. Data Mining and Knowledge Discovery, 2015, 29, 203-236.	2.4	105
48	Extraction of Temporal Patterns in Multi-rate and Multi-modal Datasets. Lecture Notes in Computer Science, 2015, , 135-142.	1.0	1
49	Tempo tracking by using a parallel particle filter on the GPU. , 2014, , .		0
50	Comparison of sampling strategies for flow length estimation. , 2014, , .		0
51	Query ranking strategies in probabilistic expert systems. , 2014, , .		0
52	Analysis of effect of single-channel speech-music separation using NMF to automatic speech recognition. , 2014, , .		0
53	Political interest and tendency prediction from microblog data. , 2014, , .		6
54	Randomized Matrix Decompositions and Exemplar Selection in Large Dictionaries for Polyphonic Piano Transcription. Journal of New Music Research, 2014, 43, 255-265.	0.6	1

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55	Sequential Monte Carlo samplers for marginal likelihood computation in multiplicative exponential noise models. , 2014, , .		0
56	Bayesian Model Comparison With the g-Prior. IEEE Transactions on Signal Processing, 2014, 62, 225-238.	3.2	26
57	Probabilistic sequence clustering with spectral learning. , 2014, 29, 1-19.		10
58	A factorization based recommender system for online services. , 2013, , .		0
59	Single-Channel Speech-Music Separation for Robust ASR With Mixture Models. IEEE Transactions on Audio Speech and Language Processing, 2013, 21, 725-736.	3.8	18
60	SMC samplers for multiresolution audio sequence alignment. , 2013, , .		2
61	ID for data with multiple clusters. , 2013, , .		0
62	Sequential Monte Carlo samplers for model-based reinforcement learning. , 2013, , .		0
63	Optimal contraction order of multiple tensors. , 2013, , .		1
64	Generalized coupled symmetric tensor factorization for link prediction. , 2013, , .		3
65	Spectral learning of mixtures of Hidden Markov Models. , 2013, , .		0
66	Model based audio sequence alignment based on deterministic similarity methods. , 2013, , .		0
67	Low rank matrix completion via random sampling. , 2013, , .		0
68	Auxiliary Particle Filtering based Multiple Changepoint Detection in Volatility Models. , 2013, , .		1
69	Score guided audio restoration via generalised coupled tensor factorisation. , 2012, , .		13
70	Catalog-based single-channel speech-music separation for automatic speech recognition. , 2012, , .		2
71	Coupled tensor factorization models for polyphonic music transcription. , 2012, , .		0
72	SVD-based polyphonic music transcription. , 2012, , .		1

#	ARTICLE	IF	CITATIONS
73	An Online Expectation-Maximisation Algorithm for Nonnegative Matrix Factorisation Models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 494-499.	0.4	2
74	Probabilistic interpolative decomposition. , 2012, , .		1
75	Infinite mixture of piecewise linear sequences. , 2012, , .		0
76	Parallel generalized tensor multiplication. , 2012, , .		0
77	Multiple change point analysis in random graph series. , 2012, , .		0
78	Markov Chain Monte Carlo inference for probabilistic latent tensor factorization. , 2012, , .		4
79	Importance sampling for model-based reinforcement learning. , 2012, , .		0
80	Algorithms for probabilistic latent tensor factorization. Signal Processing, 2012, 92, 1853-1863.	2.1	50
81	Combined perception and control for timing in robotic music performances. Eurasip Journal on Audio, Speech, and Music Processing, 2012, 2012, .	1.3	0
82	Probabilistic Models for Real-time Acoustic Event Detection with Application to Pitch Tracking. Journal of New Music Research, 2011, 40, 175-185.	0.6	1
83	Probabilistic latent tensor factorization framework for audio modeling. , 2011, , .		6
84	DTW Based Clustering to Improve Hand Gesture Recognition. Lecture Notes in Computer Science, 2011, , 72-81.	1.0	18
85	Efficient Markov chain Monte Carlo inference in composite models with space alternating data augmentation. , 2011, , .		6
86	Real-Time Recognition of Percussive Sounds by a Model-Based Method. Eurasip Journal on Advances in Signal Processing, 2011, 2011, .	1.0	5
87	Bayesian Interpolation and Parameter Estimation in a Dynamic Sinusoidal Model. IEEE Transactions on Audio Speech and Language Processing, 2011, 19, 1986-1998.	3.8	14
88	Model based audio sequence alignment. , 2011, , .		0
89	Model based multiple audio sequence alignment. , 2011, , .		5
90	A novel adaptive filter algorithm for tracking of chaotic time series. , 2011, , .		3

#	ARTICLE	IF	CITATIONS
91	Annealed SMC Samplers for Nonparametric Bayesian Mixture Models. IEEE Signal Processing Letters, 2011, 18, 3-6.	2.1	12
92	Gain estimation approaches in catalog-based single-channel speech-music separation. , 2011, , .		3
93	Generative Spectrogram Factorization Models for Polyphonic Piano Transcription. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 519-527.	3.8	10
94	Gamma Markov Random Fields for Audio Source Modeling. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 589-601.	3.8	46
95	A Bayesian Deconvolution Approach for Receiver Function Analysis. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 4151-4163.	2.7	15
96	Bayesian Inference for Nonnegative Matrix Factor Deconvolution Models. , 2010, , .		4
97	Annealed SMC Samplers for Dirichlet Process Mixture Models. , 2010, , .		5
98	Graphical Models for Time-Series. IEEE Signal Processing Magazine, 2010, , .	4.6	39
99	Probabilistic Latent Tensor Factorization. Lecture Notes in Computer Science, 2010, , 346-353.	1.0	7
100	Variational Nonnegative Matrix Factorisation. , 2009, , .		17
101	Gamma Markov Random fields for audio source modelling. , 2009, , .		0
102	A hybrid method for deconvolution of Bernoulli-Gaussian processes. , 2009, , .		3
103	Bayesian Inference for Nonnegative Matrix Factorisation Models. Computational Intelligence and Neuroscience, 2009, 2009, 1-17.	1.1	217
104	Approximate Bayesian methods for kernel-based object tracking. Computer Vision and Image Understanding, 2009, 113, 743-749.	3.0	25
105	Automated quantification of cellular traffic in living cells. Journal of Neuroscience Methods, 2009, 178, 378-384.	1.3	11
106	Unsupervised single-channel source separation using bayesian NMF. , 2009, , .		17
107	Mixtures of Gamma Priors for Non-negative Matrix Factorization Based Speech Separation. Lecture Notes in Computer Science, 2009, , 646-653.	1.0	19
108	Bayesian hierarchical models and inference for musical audio processing. , 2008, , .		1

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109	Bayesian extensions to non-negative matrix factorisation for audio signal modelling. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	72
110	Sequential Inference of Rhythmic Structure in Musical Audio. , 2007, , .		11
111	Bayesian methods for multimedia signal processing. , 2007, , .		1
112	Prior Structures for Time-Frequency Energy Distributions. , 2007, , .		18
113	Strategies for Sequential Inference in Factorial Switching State Space Models. , 2007, , .		2
114	Generative Model for Human Motion Recognition. Proc Int Symp Image Signal Process Anal, 2007, , .	0.0	0
115	Multi-Object Tracking of Sinusoidal Components in Audio with the Gaussian Mixture Probability Hypothesis Density Filter. , 2007, , .		5
116	Variational and stochastic inference for Bayesian source separation. , 2007, 17, 891-913.		53
117	Conjugate Gamma Markov Random Fields for Modelling Nonstationary Sources. , 2007, , 697-705.		24
118	A generative model for music transcription. IEEE Transactions on Audio Speech and Language Processing, 2006, 14, 679-694.	3.8	81
119	Sequential Inference for Factorial Changepoint Models. , 2006, , .		2
120	Online multicamera tracking with a switching state-space model. , 2004, , .		5
121	Rhythm Quantization for Transcription. Computer Music Journal, 2000, 24, 60-76.	0.3	45
122	On tempo tracking: Tempogram Representation and Kalman filtering. Journal of New Music Research, 2000, 29, 259-273.	0.6	85
123	Generative model based polyphonic music transcription. , 0, , .		16
124	A Hybrid Graphical Model for Robust Feature Extraction from Video. , 0, , .		6
125	Efficient variational inference for the dynamic harmonic model. , 0, , .		3
126	Inference and estimation in probabilistic time series models. , 0, , 1-31.		2

#	ARTICLE	IF	CITATIONS
127	Catalog-based single-channel speech-music separation. , 0, , .		4
128	Effect of speech priors in single-channel speech-music separation for ASR. , 0, , .		0