Hans-Andrea Loeliger

List of Publications by Year
in descending order

50 papers	660 citations

1307594

7 h-index

1199594

12 g-index

50 all docs	50 docs citations	50 times ranked	431 citing authors

#	Article	IF	Citations
1	The Factor Graph Approach to Model-Based Signal Processing. Proceedings of the IEEE, 2007, 95, 1295-1322.	21.3	391
2	On sparsity by NUV-EM, Gaussian message passing, and Kalman smoothing. , 2016, , .		30
3	Computation of Information Rates by Particle Methods. IEEE Transactions on Information Theory, 2008, 54, 406-409.	2.4	27
4	On the Static Resolution of Digitally Corrected Analog-to-Digital and Digital-to-Analog Converters With Low-Precision Components. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2007, 54, 229-237.	0.1	19
5	Factor Graphs for Quantum Probabilities. IEEE Transactions on Information Theory, 2017, , 1-1.	2.4	17
6	On irreducible polynomial remainder codes. , 2011, , .		10
7	Monte Carlo Algorithms for the Partition Function and Information Rates of Two-Dimensional Channels. IEEE Transactions on Information Theory, 2013, 59, 495-503.	2.4	10
8	Partition function of the Ising model via factor graph duality. , 2013, , .		10
9	Outlier-insensitive Kalman smoothing and marginal message passing. , 2016, , .		9
10	Factor Graphs with NUV Priors and Iteratively Reweighted Descent for Sparse Least Squares and More. , 2018, , .		9
11	Windowed State-Space Filters for Signal Detection and Separation. IEEE Transactions on Signal Processing, 2018, 66, 3768-3783.	5.3	9
12	Localizing, forgetting, and likelihood filtering in state-space models. , 2009, , .		8
13	Model-Based Separation, Detection, and Classification of Eye Movements. IEEE Transactions on Biomedical Engineering, 2020, 67, 588-600.	4.2	8
14	Simultaneous Partial Inverses and Decoding Interleaved Reed–Solomon Codes. IEEE Transactions on Information Theory, 2018, 64, 7511-7528.	2.4	7
15	Estimating the partition function of 2-D fields and the capacity of constrained noiseless 2-D channels using tree-based Gibbs sampling. , 2009, , .		6
16	Local statistical models from deterministic state space models, likelihood filtering, and local typicality. , 2014, , .		6
17	Simulation-based estimation of the partition function and the information rate of two-dimensional models. , 2008, , .		5
18	Estimation of sensor input signals that are neither bandlimited nor sparse. , 2014, , .		5

#	Article	IF	Citations
19	Gesture recognition from magnetic field measurements using a bank of linear state space models and local likelihood filtering. , 2015, , .		5
20	Partial Inverses mod $m(x)$ and Reverse Berlekamp–Massey Decoding. IEEE Transactions on Information Theory, 2016, 62, 6737-6756.	2.4	5
21	Tomographic reconstruction using a new voxel-domain prior and Gaussian message passing. , 2016, , .		5
22	Analog-to-digital conversion using unstable filters. , 2011, , .		4
23	Reverse Berlekamp-Massey decoding. , 2013, , .		4
24	An algorithm for simultaneous partial inverses. , 2014, , .		4
25	Multi-sensor estimation and detection of phase-locked sinusoids. , 2011, , .		3
26	Control-based analog-to-digital conversion without sampling and quantization. , 2015, , .		3
27	Decoding of interleaved Reed-Solomon codes via simultaneous partial inverses. , 2015, , .		3
28	Inferring depolarization of cells from 3D-electrode measurements using a bank of linear state space models. , 2016, , .		3
29	New square-root and diagonalized Kalman smoothers. , 2016, , .		3
30	Color image segmentation using iterative edge cutting, NUV-EM, and Gaussian message passing. , 2017, , .		3
31	Estimation of Neural Inputs and Detection of Saccades and Smooth Pursuit Eye Movements by Sparse Bayesian Learning. , 2018, 2018, 2619-2622.		3
32	Quantum Measurement as Marginalization and Nested Quantum Systems. IEEE Transactions on Information Theory, 2020, 66, 3485-3499.	2.4	3
33	Real-Time Interaural Time Delay Estimation via Onset Detection. , 2021, , .		3
34	On sequential analog-to-digital conversion with low-precision components. , 2008, , .		2
35	Multitree decoding and multitree-aided LDPC decoding. , 2010, , .		2
36	Unsupervised feature extraction, signal labeling, and blind signal separation in a state space world. , 2017, , .		2

#	Article	IF	Citations
37	Autonomous state space models for recursive signal estimation beyond least squares. , 2017, , .		2
38	Multi-Image Blind Deblurring Using a Smoothed NUV Prior and Iteratively Reweighted Coordinate Descent. , 2020, , .		2
39	Signal Analysis Using Local Polynomial Approximations. , 2021, , .		2
40	Control-Bounded Analog-to-Digital Conversion. Circuits, Systems, and Signal Processing, 2022, 41, 1223-1254.	2.0	2
41	Continuous-time matched filtering and decoding without synchronization. , 2009, , .		1
42	Self-synchronizing signal parsing with spiking feature-detection filters. , 2014, , .		1
43	A Multi-Resolution Approach to Complexity Reduction in Tomographic Reconstruction. , 2018, , .		1
44	Estimation of the Cardiac Field in the Esophagus Using a Multipolar Esophageal Catheter. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 791-800.	4.0	1
45	Context by Proxy. , 2019, , .		1
46	Online Memorization of Random Firing Sequences by a Recurrent Neural Network. , 2020, , .		1
47	Estimating the information rate of noisy two-dimensional constrained channels. , 2010, , .		0
48	Signal processing with factor graphs: Beamforming and Hilbert transform. , 2013, , .		0
49	Exact Discrete-time Realizations of the Gammatone Filter. , 2019, , .		0
50	Smoothed-NUV Priors for Imaging. IEEE Transactions on Image Processing, 2022, 31, 4663-4678.	9.8	0