Palghat P Vaidyanathan

List of Publications by Year
in descending order

318	12,130	71061	38368
papers	citations	41	95
		h-index	g-index

318	318	318	3257
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Convolutional Beamspace Using IIR Filters. , 2022, , .		0
2	Distributed Algorithms for Array Signal Processing. IEEE Transactions on Signal Processing, 2021, 69, 4607-4622.	3.2	14
3	Joint Vertex-Time Filtering on Graphs With Random Node-Asynchronous Updates. IEEE Access, 2021, 9, 122801-122818.	2.6	2
4	Sliding-Capon Based Convolutional Beamspace for Linear Arrays. , 2021, , .		1
5	Distributed Root-MUSIC Using Finite-Time Average Consensus. , 2021, , .		0
6	Unifying Random-Asynchronous Algorithms for Numerical Methods, Using Switching Systems Theory. , 2021, , .		0
7	Srinivasa Ramanujan and signal-processing problems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20180446.	1.6	4
8	IIR Filtering on Graphs With Random Node-Asynchronous Updates. IEEE Transactions on Signal Processing, 2020, 68, 3945-3960.	3.2	7
9	Node-Asynchronous Spectral Clustering On Directed Graphs. , 2020, , .		4
10	Convolutional Beamspace for Linear Arrays. IEEE Transactions on Signal Processing, 2020, 68, 5395-5410.	3.2	15
11	Random Node-Asynchronous Graph Computations: Novel Opportunities for Discrete-Time State-Space Recursions. IEEE Signal Processing Magazine, 2020, 37, 64-73.	4.6	5
12	Novel algorithms for analyzing the robustness of difference coarrays to sensor failures. Signal Processing, 2020, 171, 107517.	2.1	6
13	On the Zeros of Ramanujan Filters. IEEE Signal Processing Letters, 2020, 27, 735-739.	2.1	2
14	Convolutional Beamspace for Array Signal Processing. , 2020, , .		8
15	Convolutional Beamspace and Sparse Signal Recovery for Linear Arrays. , 2020, , .		1
16	Node-Asynchronous Implementation of Filter Banks on Graphs. , 2020, , .		0
17	Node-asynchronous Implementation of Rational Filters on Graphs. , 2019, , .		6
18	Composite Singer Arrays with Hole-free Coarrays and Enhanced Robustness. , 2019, , .		3

#	Article	IF	Citations
19	Robustness of Difference Coarrays of Sparse Arrays to Sensor Failuresâ€"Part II: Array Geometries. IEEE Transactions on Signal Processing, 2019, 67, 3227-3242.	3.2	27
20	Robustness of Difference Coarrays of Sparse Arrays to Sensor Failuresâ€"Part I: A Theory Motivated by Coarray MUSIC. IEEE Transactions on Signal Processing, 2019, 67, 3213-3226.	3.2	38
21	Random Node-Asynchronous Updates on Graphs. IEEE Transactions on Signal Processing, 2019, 67, 2794-2809.	3.2	13
22	Robust Digital Filter Structures: A Direct Approach. IEEE Circuits and Systems Magazine, 2019, 19, 14-32.	2.6	4
23	DSP-Inspired Deep Learning: A Case Study Using Ramanujan Subspaces. , 2019, , .		0
24	Randomized Asynchronous Recursions with a Sinusoidal Input. , 2019, , .		6
25	On ESPRIT with Multiple Coprime-Invariances. , 2019, , .		1
26	iMUSIC: A Family of MUSIC-Like Algorithms for Integer Period Estimation. IEEE Transactions on Signal Processing, 2019, 67, 367-382.	3.2	22
27	The random component-wise power method. , 2019, , .		5
28	Minimum Data Length for Integer Period Estimation. IEEE Transactions on Signal Processing, 2018, 66, 2733-2745.	3.2	11
29	Optimizing Minimum Redundancy Arrays for Robustness. , 2018, , .		16
30	Asynchronous Nonlinear Updates on Graphs. , 2018, , .		5
31	Absence Seizure Detection Using Ramanujan Filter Banks. , 2018, , .		8
32	ENERGY COMPACTION FILTERS ON GRAPHS. , 2018, , .		1
33	Robustness of Coarrays of Sparse Arrays to Sensor Failures. , 2018, , .		11
34	Comparison of Sparse Arrays From Viewpoint of Coarray Stability and Robustness. , 2018, , .		12
35	Minimal Non-Uniform Sampling For Multi-Dimensional Period Identification. , 2018, , .		1
36	CramÃ©râ€"Rao bounds for coprime and other sparse arrays, which find more sources than sensors. , 2017, 61, 43-61.		213

#	Article	IF	Citations
37	Hourglass Arrays and Other Novel 2-D Sparse Arrays With Reduced Mutual Coupling. IEEE Transactions on Signal Processing, 2017, 65, 3369-3383.	3.2	60
38	On the Role of the Bounded Lemma in the SDP Formulation of Atomic Norm Problems. IEEE Signal Processing Letters, 2017, 24, 972-976.	2.1	7
39	Efficient multiplier-less structures for Ramanujan filter banks. , 2017, , .		10
40	Uncertainty Principles and Sparse Eigenvectors of Graphs. IEEE Transactions on Signal Processing, 2017, 65, 5406-5420.	3.2	29
41	Correlation Subspaces: Generalizations and Connection to Difference Coarrays. IEEE Transactions on Signal Processing, 2017, 65, 5006-5020.	3.2	14
42	Extending Classical Multirate Signal Processing Theory to Graphsâ€"Part I: Fundamentals. IEEE Transactions on Signal Processing, 2017, 65, 409-422.	3.2	62
43	Extending Classical Multirate Signal Processing Theory to Graphsâ€"Part II: M-Channel Filter Banks. IEEE Transactions on Signal Processing, 2017, 65, 423-437.	3.2	65
44	MUSIC and Ramanujan: MUSIC-like algorithms for integer periods using nested-periodic-subspaces. , 2017, , .		2
45	Sparse eigenvectors of graphs. , 2017, , .		1
46	Minimum number of possibly non-contiguous samples to distinguish two periods. , 2017, , .		3
47	Maximally economic sparse arrays and cantor arrays. , 2017, , .		40
48	The role of difference coarrays in correlation subspaces. , 2017, , .		0
49	Time estimation for heat diffusion on graphs. , 2017, , .		4
50	High order super nested arrays. , 2016, , .		11
51	Two-dimensional sparse arrays with hole-free coarray and reduced mutual coupling. , 2016, , .		5
52	Detection of protein repeats using the Ramanujan Filter Bank. , 2016, , .		10
53	Coprime coarray interpolation for DOA estimation via nuclear norm minimization. , 2016, , .		107
54	Super Nested Arrays: Linear Sparse Arrays With Reduced Mutual Couplingâ€"Part I: Fundamentals. IEEE Transactions on Signal Processing, 2016, 64, 3997-4012.	3.2	441

#	Article	IF	Citations
55	Super Nested Arrays: Linear Sparse Arrays With Reduced Mutual Coupling—Part II: High-Order Extensions. IEEE Transactions on Signal Processing, 2016, 64, 4203-4217.	3.2	221
56	Graph filter banks with M-channels, maximal decimation, and perfect reconstruction. , 2016, , .		9
57	A Unified Theory of Union of Subspaces Representations for Period Estimation. IEEE Transactions on Signal Processing, 2016, 64, 5217-5231.	3.2	26
58	Super nested arrays: Sparse arrays with less mutual coupling than nested arrays. , 2016, , .		40
59	New Cramér-Rao bound expressions for coprime and other sparse arrays. , 2016, , .		5
60	Critical data length for period estimation. , 2016, , .		4
61	Detecting tandem repeats in DNA using Ramanujan Filter Bank. , 2016, , .		23
62	Linear systems on graphs. , 2016, , .		2
63	Minimal dictionaries for spanning periodic signals. , 2015, , .		5
64	Period estimation and tracking: Filter bank design using truth tables of logic. , 2015, , .		2
65	Arbitrarily Shaped Periods in Multidimensional Discrete Time Periodicity. IEEE Signal Processing Letters, 2015, 22, 1748-1751.	2.1	5
66	Fundamentals of multirate graph signal processing. , 2015, , .		8
67	Tensor MUSIC in multidimensional sparse arrays. , 2015, , .		19
68	Properties of Ramanujan filter banks. , 2015, , .		22
69	Pushing the Limits of Sparse Support Recovery Using Correlation Information. IEEE Transactions on Signal Processing, 2015, 63, 711-726.	3.2	160
70	Nested Periodic Matrices and Dictionaries: New Signal Representations for Period Estimation. IEEE Transactions on Signal Processing, 2015, 63, 3736-3750.	3.2	69
71	Remarks on the Spatial Smoothing Step in Coarray MUSIC. IEEE Signal Processing Letters, 2015, 22, 1438-1442.	2.1	393
72	Coprime DFT filter bank design: Theoretical bounds and guarantees. , 2015, , .		3

#	Article	IF	Citations
73	Ramanujan filter banks for estimation and tracking of periodicities. , 2015, , .		28
74	Multidimensional Ramanujan-sum expansions on nonseparable lattices. , 2015, , .		7
75	Ramanujan-sum expansions for finite duration (FIR) sequences. , 2014, , .		14
76	The farey-dictionary for sparse representation of periodic signals. , 2014, , .		35
77	Ramanujan subspaces and digital signal processing. , 2014, , .		4
78	Dictionary approaches for identifying periodicities in data. , 2014, , .		8
79	Parameter identifiability in Sparse Bayesian Learning. , 2014, , .		10
80	Design of coprime DFT arrays and filter banks. , 2014, , .		4
81	Ramanujan Sums in the Context of Signal Processing—Part II: FIR Representations and Applications. IEEE Transactions on Signal Processing, 2014, 62, 4158-4172.	3.2	95
82	Ramanujan Sums in the Context of Signal Processing—Part I: Fundamentals. IEEE Transactions on Signal Processing, 2014, 62, 4145-4157.	3.2	162
83	A Grid-Less Approach to Underdetermined Direction of Arrival Estimation Via Low Rank Matrix Denoising. IEEE Signal Processing Letters, 2014, 21, 737-741.	2.1	90
84	Co-pilots in channel estimation. , 2013, , .		0
85	Analog filter banks for sampling: Discretization, polyphase form, and role in compressive sensing. , 2013, , .		2
86	Reflections on sampling-filters for compressive sensing and finite-innovations-rate models. , 2013, , .		0
87	Why does direct-MUSIC on sparse-arrays work?. , 2013, , .		28
88	MIMO Broadcast DFE Transceivers With QoS Constraints: Min-Power and Max-Rate Solutions. IEEE Transactions on Signal Processing, 2013, 61, 5550-5562.	3.2	4
89	Compressive sensing and filter-bank signal models. , 2012, , .		1
90	Nested Arrays in Two Dimensions, Part II: Application in Two Dimensional Array Processing. IEEE Transactions on Signal Processing, 2012, 60, 4706-4718.	3.2	123

#	Article	IF	Citations
91	MIMO broadcast DFE transceiver design with bit allocation under QoS constraints. , 2012, , .		2
92	Nested Arrays in Two Dimensions, Part I: Geometrical Considerations. IEEE Transactions on Signal Processing, 2012, 60, 4694-4705.	3.2	138
93	Joint MAX-SER-minimized DFE transceiver design with bit allocation for broadcast channels. , 2012, , .		2
94	Generalized Geometric Mean Decomposition and DFE Transceiver Designâ€"Part I: Design and Complexity. IEEE Transactions on Signal Processing, 2012, 60, 3112-3123.	3.2	10
95	On application of LASSO for sparse support recovery with imperfect correlation awareness. , 2012, , .		41
96	Multiple Level Nested Array: An Efficient Geometry for $2q$th Order Cumulant Based Array Processing. IEEE Transactions on Signal Processing, 2012, 60, 1253-1269.	3.2	222
97	Correlation-aware techniques for sparse support recovery. , 2012, , .		41
98	Direct-MUSIC on sparse arrays. , 2012, , .		42
99	Max-rate MIMO broadcast DFE transceiver design under power and SER constraints. , 2012, , .		0
100	Generalized Geometric Mean Decomposition and DFE Transceiver Designâ€"Part II: Performance Analysis. IEEE Transactions on Signal Processing, 2012, 60, 3124-3133.	3.2	7
101	Coprime sampling and the music algorithm. , 2011, , .		566
102	Theory of Sparse Coprime Sensing in Multiple Dimensions. IEEE Transactions on Signal Processing, 2011, 59, 3592-3608.	3.2	170
103	Generating New Commuting Coprime Matrix Pairs From Known Pairs. IEEE Signal Processing Letters, 2011, 18, 303-306.	2.1	0
104	Non uniform linear arrays for improved identifiability in cumulant based DOA Estimation. , 2011, , .		1
105	A General Approach to Coprime Pairs of Matrices, Based on Minors. IEEE Transactions on Signal Processing, 2011, 59, 3536-3548.	3.2	6
106	Nonuniform sparse array design for active sensing. , 2011, , .		16
107	Generalized geometric mean decomposition and DFE MMSE transceiver design for cyclic prefix systems. , 2011, , .		2
108	Sparse Sensing With Co-Prime Samplers and Arrays. IEEE Transactions on Signal Processing, 2011, 59, 573-586.	3.2	1,316

#	Article	IF	Citations
109	Coprimality of Certain Families of Integer Matrices. IEEE Transactions on Signal Processing, 2011, 59, 1481-1490.	3.2	9
110	Low complexity generalized geometric mean decomposition and DFE transceiver design. , 2011, , .		1
111	Coprime sampling for system stabilization with FIR multirate controllers. , 2011, , .		3
112	Two dimensional nested arrays on lattices. , 2011, , .		1
113	The role of GTD in optimizing biorthogonal filter banks. , 2011, , .		1
114	Adjugate pairs of sparse arrays for sampling two dimensional signals. , 2011, , .		1
115	Sparse coprime sensing with multidimensional lattice arrays. , 2011, , .		10
116	Block diagonal GMD for zero-padded mimo frequency selective channels with zero-forcing DFE. , 2010, , .		0
117	Beamforming using passive nested arrays of sensors. , 2010, , .		9
118	Efficient frequency invariant beamforming using virtual arrays. , 2010, , .		6
119	ZF-DFE transceiver for time-varying MIMO channels with channel-independent temporal precoder. , 2010, , .		4
120	ZF-DFE transceiver design for time-varying MIMO channels using space-time generalized triangular decomposition. , 2010, , .		2
121	Frequency dependent GTD coders. , 2010, , .		1
122	Sparse sensing with coprime arrays. , 2010, , .		39
123	A novel array structure for directions-of-arrival estimation with increased degrees of freedom. , 2010, , .		27
124	MIMO Transceiver Optimization With Linear Constraints on Transmitted Signal Covariance Components. IEEE Transactions on Signal Processing, 2010, 58, 458-462.	3.2	5
125	Nested Arrays: A Novel Approach to Array Processing With Enhanced Degrees of Freedom. IEEE Transactions on Signal Processing, 2010, 58, 4167-4181.	3.2	1,544
126	Zero-Forcing DFE Transceiver Design Over Slowly Time-Varying MIMO Channels Using ST-GTD. IEEE Transactions on Signal Processing, 2010, 58, 5779-5790.	3.2	6

#	Article	IF	Citations
127	System Identification With Sparse Coprime Sensing. IEEE Signal Processing Letters, 2010, 17, 823-826.	2.1	18
128	Active beamforming with interpolated FIR filterin. , 2010, , .		3
129	Dithered GMD Transform Coding. IEEE Signal Processing Letters, 2010, 17, 457-460.	2.1	2
130	Frequency invariant MVDR beamforming without filters and implementation using MIMO radar. , 2009, , .		12
131	Generalized triangular transform coding. , 2009, , .		0
132	Optimization of transceivers with bit allocation to maximize bit rate for MIMO transmission. IEEE Transactions on Communications, 2009, 57, 3556-3560.	4.9	11
133	MIMO Radar Waveform Optimization With Prior Information of the Extended Target and Clutter. IEEE Transactions on Signal Processing, 2009, 57, 3533-3544.	3.2	240
134	Structural Alignment of RNAs Using Profile-csHMMs and Its Application to RNA homology Search: Overview and New Results. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2009, , .	0.1	0
135	Fast Structural Alignment of RNAs by Optimizing the Adjoining Order of Profile-csHMMs. IEEE Journal on Selected Topics in Signal Processing, 2008, 2, 400-411.	7.3	3
136	Comments on "Performance Analysis of a Deterministic Channel Estimator for Block Transmission Systems With Null Guard Intervals. IEEE Transactions on Signal Processing, 2008, 56, 1308-1309.	3.2	4
137	New Blind Block Synchronization for Transceivers Using Redundant Precoders. IEEE Transactions on Signal Processing, 2008, 56, 5987-6002.	3.2	3
138	Properties of the MIMO radar ambiguity function. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	21
139	MIMO Radar Space–Time Adaptive Processing Using Prolate Spheroidal Wave Functions. IEEE Transactions on Signal Processing, 2008, 56, 623-635.	3.2	305
140	MIMO Radar Ambiguity Properties and Optimization Using Frequency-Hopping Waveforms. IEEE Transactions on Signal Processing, 2008, 56, 5926-5936.	3.2	234
141	Compressed sensing in MIMO radar. , 2008, , .		67
142	Structural Alignment of RNAs Using Profile-csHMMs and Its Application to RNA Homology Search: Overview and New Results. IEEE Transactions on Automatic Control, 2008, 53, 10-25.	3.6	12
143	MIMO radar with broadband waveforms: Smearing filter banks and 2D virtual arrays. , 2008, , .		9
144	Blind block synchronization algorithms in cyclic prefix systems. , 2008, , .		1

#	ARTICLE	IF	CITATIONS
145	Eigenfunctions of the Fourier Transform. IETE Journal of Education Online, 2008, 49, 51-58.	0.7	7
146	Minimum redundancy MIMO radars. , 2008, , .		39
147	Per-antenna power constrained MIMO transceivers optimized for BER. , 2008, , .		0
148	Joint optimization of transceivers with fractionally spaced equalizers. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	2
149	Joint optimization of transceivers with decision feedback and bit loading. , 2008, , .		3
150	On the degree of MIMO systems. , 2007, , .		0
151	The Theory of Linear Prediction. Synthesis Lectures on Signal Processing, 2007, 2, 1-184.	0.3	36
152	Fast Search of Sequences with Complex Symbol Correlations using Profile Context-Sensitive HMMS and Pre-Screening Filters. , 2007, , .		6
153	Generalized Signal Richness Preservation Problem and Vandermonde-Form Preserving Matrices. IEEE Transactions on Signal Processing, 2007, 55, 2239-2250.	3.2	1
154	Some properties of IIR power-symmetric filters. , 2007, , .		5
155	On equalization of channels with ZP precoders. , 2007, , .		4
156	A Semi-Blind Pilot-Assisted Channel Estimation Algorithm in OFDM Systems. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	0
157	A Subspace Method for MIMO Radar Space-Time Adaptive Processing. , 2007, , .		24
158	Fast Structural Similarity Search of Noncoding RNAs Based on Matched Filtering of Stem Patterns. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	3
159	Precoded FIR and Redundant V-BLAST Systems for Frequency-Selective MIMO Channels. IEEE Transactions on Signal Processing, 2007, 55, 3390-3404.	3.2	16
160	A Simple Proof of the Alternation Theorem. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	0
161	Performance Analysis of Generalized Zero-Padded Blind Channel Estimation Algorithms. IEEE Signal Processing Letters, 2007, 14, 789-792.	2.1	5
162	MIMO Radar Ambiguity Optimization Using Frequency-Hopping Waveforms. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	3

#	Article	IF	Citations
163	New Algorithms for Blind Block Synchronization in Zero-Padding Systems. , 2007, , .		4
164	Quadratically Constrained Beamforming Robust Against Direction-of-Arrival Mismatch. IEEE Transactions on Signal Processing, 2007, 55, 4139-4150.	3.2	118
165	Subspace-Based Blind Channel Identification for Cyclic Prefix Systems Using Few Received Blocks. IEEE Transactions on Signal Processing, 2007, 55, 4979-4993.	3.2	47
166	Computational identification and analysis of noncoding RNAs - Unearthing the buried treasures in the genorne. IEEE Signal Processing Magazine, 2007, 24, 64-74.	4.6	20
167	Beamforming issues in modern MIMO Radars with Doppler. , 2006, , .		14
168	Modeling and identification of alternative folding in regulatory RNAs using context-sensitive HMMS. , 2006, , .		1
169	Vandermonde-form Preserving Matrices And The Generalized Signal Richness Preservation Problem. , 2006, , .		2
170	Iterative greedy algorithm for solving the FIR paraunitary approximation problem. IEEE Transactions on Signal Processing, 2006, 54, 146-160.	3.2	34
171	On the spectral factor ambiguity of FIR energy compaction filter Banks. IEEE Transactions on Signal Processing, 2006, 54, 380-385.	3.2	9
172	Theoretical issues on LTI systems that preserve signal richness. IEEE Transactions on Signal Processing, 2006, 54, 1104-1113.	3.2	3
173	Context-Sensitive Hidden Markov Models for Modeling Long-Range Dependencies in Symbol Sequences. IEEE Transactions on Signal Processing, 2006, 54, 4169-4184.	3.2	21
174	A Novel Beamformer Robust to Steering Vector Mismatch. , 2006, , .		2
175	Generalized Subspace-based Algorithms For Blind Channel Estimation In Cyclic Prefix Systems. , 2006, , .		2
176	An overview of the role of context-sensitive HMMS in the prediction of NCRNA genes. , 2005, , .		2
177	A multirate DSP model for estimation of discrete probability density functions. IEEE Transactions on Signal Processing, 2005, 53, 252-264.	3.2	9
178	Equalization with oversampling in multiuser CDMA systems. IEEE Transactions on Signal Processing, 2005, 53, 1837-1851.	3.2	5
179	The role of signal-processing concepts in genomics and proteomics. Journal of the Franklin Institute, 2004, 341, 111-135.	1.9	135
180	Genomics and proteomics: A signal processor's tour. IEEE Circuits and Systems Magazine, 2004, 4, 6-29.	2.6	41

#	Article	IF	Citations
181	A low-complexity eigenfilter design method for channel shortening equalizers for dmt systems. IEEE Transactions on Communications, 2003, 51, 1069-1072.	4.9	25
182	Fractional biorthogonal partners in channel equalization and signal interpolation. IEEE Transactions on Signal Processing, 2003, 51, 1928-1940.	3.2	11
183	Finite-channel chromatic derivative filter banks. IEEE Signal Processing Letters, 2003, 10, 15-17.	2.1	9
184	On the eigenfilter design method and its applications: A tutorial. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2003, 50, 497-517.	2.3	74
185	Discrete probability density estimation using multirate DSP models. , 2003, , .		1
186	On the least squares signal approximation model for overdecimated rational nonuniform filter banks and applications. , 2003, , .		1
187	Nonuniform Filter Banks: New Results and open Problems. Studies in Computational Mathematics, 2003, 10, 259-301.	0.2	7
188	Chromatic derivative filter banks. IEEE Signal Processing Letters, 2002, 9, 215-216.	2.1	16
189	Discrete multitone modulation with principal component filter banks. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2002, 49, 1397-1412.	0.1	19
190	Eigenfilter design of MIMO equalizers for channel shortening. , 2002, , .		10
191	Theory of fractionally spaced cyclic-prefix equalizers. , 2002, , .		17
192	Fractional biorthogonal partners in fractionally spaced equalizers. , 2002, , .		4
193	MIMO biorthogonal partners and applications. IEEE Transactions on Signal Processing, 2002, 50, 528-542.	3.2	19
194	Recent advances in digital halftoning and inverse halftoning methods. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2002, 49, 790-805.	0.1	76
195	Tree-structured method for LUT inverse halftoning and for image halftoning. IEEE Transactions on Image Processing, 2002, 11, 644-655.	6.0	30
196	Filter banks in digital communications. IEEE Circuits and Systems Magazine, 2001, 1, 4-25.	2.6	5
197	Filterbank optimization with convex objectives and the optimality of principal component forms. IEEE Transactions on Signal Processing, 2001, 49, 100-114.	3.2	53
198	Biorthogonal partners and applications. IEEE Transactions on Signal Processing, 2001, 49, 1013-1027.	3.2	43

#	Article	IF	Citations
199	Look-up table (LUT) method for inverse halftoning. IEEE Transactions on Image Processing, 2001, 10, 1566-1578.	6.0	112
200	On the general form of FIR MIMO biorthogonal partners. , 2001, , .		5
201	A Review of the Theory and Applications of Optimal Subband and Transform Coders. Applied and Computational Harmonic Analysis, 2001, 10, 254-289.	1.1	14
202	The role of filter banks in sinusoidal frequency estimation. Journal of the Franklin Institute, 2001, 338, 517-547.	1.9	19
203	Results on principal component filter banks: colored noise suppression and existence issues. IEEE Transactions on Information Theory, 2001, 47, 1003-1020.	1.5	12
204	Least squares signal approximation using multirate systems: multichannel nonuniform case. , 2001, , .		6
205	Generalized kurtosis and applications in blind equalization of MIMO channels. , 2001, , .		6
206	Efficient implementation of all-digital interpolation. IEEE Transactions on Image Processing, 2001, 10, 1639-1646.	6.0	49
207	Optimized halftoning using dot diffusion and methods for inverse halftoning. IEEE Transactions on Image Processing, 2000, 9, 691-709.	6.0	97
208	Bifrequency and bispectrum maps: a new look at multirate systems with stochastic inputs. IEEE Transactions on Signal Processing, 2000, 48, 723-736.	3.2	36
209	A state space approach to the design of globally optimal FIR energy compaction filters. IEEE Transactions on Signal Processing, 2000, 48, 2822-2838.	3.2	52
210	A mathematical description of the dot diffusion algorithm in image halftoning with application in inverse halftoning. , 1999, , .		5
211	New results and open problems on nonuniform filter-banks. , 1999, , .		37
212	Homogeneous time-invariant systems. IEEE Signal Processing Letters, 1999, 6, 76-77.	2.1	4
213	Oversampling PCM techniques and optimum noise shapers for quantizing a class of nonbandlimited signals. IEEE Transactions on Signal Processing, 1999, 47, 389-407.	3.2	8
214	Cyclic LTI systems in digital signal processing. IEEE Transactions on Signal Processing, 1999, 47, 433-447.	3.2	27
215	A Kaiser window approach for the design of prototype filters of cosine modulated filterbanks. IEEE Signal Processing Letters, 1998, 5, 132-134.	2.1	152
216	Structures for anticausal inverses and application in multirate filter banks. IEEE Transactions on Signal Processing, 1998, 46, 507-514.	3.2	7

#	Article	IF	Citations
217	Theory and design of optimum FIR compaction filters. IEEE Transactions on Signal Processing, 1998, 46, 903-919.	3.2	75
218	Theory of optimal orthonormal subband coders. IEEE Transactions on Signal Processing, 1998, 46, 1528-1543.	3.2	145
219	Results on optimal biorthogonal filter banks. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 1998, 45, 932-947.	2.3	39
220	Periodically nonuniform sampling of bandpass signals. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 1998, 45, 340-351.	2.3	142
221	On the minimum phase property of prediction-error polynomials. IEEE Signal Processing Letters, 1997, 4, 126-127.	2.1	6
222	Statistically optimum pre- and postfiltering in quantization. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 1997, 44, 1015-1031.	2.3	19
223	Generalized sampling theorems in multiresolution subspaces. IEEE Transactions on Signal Processing, 1997, 45, 583-599.	3.2	74
224	Paraunitary filter banks over finite fields. IEEE Transactions on Signal Processing, 1997, 45, 1443-1457.	3.2	29
225	Factorability of lossless time-varying filters and filter banks. IEEE Transactions on Signal Processing, 1997, 45, 1971-1986.	3.2	7
226	On optimal analysis/synthesis filters for coding gain maximization. IEEE Transactions on Signal Processing, 1996, 44, 1276-1279.	3.2	24
227	Theory and design of two-parallelogram filter banks. IEEE Transactions on Signal Processing, 1996, 44, 2688-2706.	3.2	21
228	On the study of four-parallelogram filter banks. IEEE Transactions on Signal Processing, 1996, 44, 2707-2717.	3.2	3
229	Time-varying filters and filter banks: some basic principles. IEEE Transactions on Signal Processing, 1996, 44, 2971-2987.	3.2	37
230	Theory and design of two-dimensional filter Banks: A review. Multidimensional Systems and Signal Processing, 1996, 7, 263-330.	1.7	52
231	Results on lattice vector quantization with dithering. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 1996, 43, 811-826.	2.3	18
232	A new class of two-channel biorthogonal filter banks and wavelet bases. IEEE Transactions on Signal Processing, 1995, 43, 649-665.	3.2	339
233	One- and two-level filter-bank convolvers. IEEE Transactions on Signal Processing, 1995, 43, 116-133.	3.2	3
234	Role of anticausal inverses in multirate filter-banks .I. System-theoretic fundamentals. IEEE Transactions on Signal Processing, 1995, 43, 1090-1102.	3.2	81

#	Article	IF	Citations
235	Role of anticausal inverses in multirate filter-banks .II. The FIR case, factorizations, and biorthogonal lapped transforms. IEEE Transactions on Signal Processing, 1995, 43, 1103-1115.	3.2	56
236	Linear phase cosine modulated maximally decimated filter banks with perfect reconstruction. IEEE Transactions on Signal Processing, 1995, 43, 2525-2539.	3.2	86
237	Vector space framework for unification of one- and multidimensional filter bank theory. IEEE Transactions on Signal Processing, 1994, 42, 2006-2021.	3.2	18
238	New results on multidimensional Chinese remainder theorem. IEEE Signal Processing Letters, 1994, 1, 176-178.	2.1	5
239	The role of integer matrices in multidimensional multirate systems. IEEE Transactions on Signal Processing, 1993, 41, 1035-1047.	3.2	46
240	Multidimensional multirate filters and filter banks derived from one-dimensional filters. IEEE Transactions on Signal Processing, 1993, 41, 1749-1765.	3.2	69
241	Orthonormal and biorthonormal filter banks as convolvers, and convolutional coding gain. IEEE Transactions on Signal Processing, 1993, 41, 2110-2130.	3.2	44
242	A Spectral Factorization Approach to Pseudo-QMF Design. IEEE Transactions on Signal Processing, 1993, 41, 82.	3.2	47
243	Effects of Multirate Systems on the Statistical Properties of Random Signals. IEEE Transactions on Signal Processing, 1993, 41, 131.	3.2	129
244	On coefficient-quantization and computational roundoff effects in lossless multirate filter banks. IEEE Transactions on Signal Processing, 1991, 39, 1006-1008.	3.2	18
245	On arbitrary-level IIR and FIR filters. IEEE Transactions on Circuits and Systems, 1990, 37, 280-284.	0.9	3
246	On the design and realization of a class of uniform single rate FIR DFT filter banks. Circuits, Systems, and Signal Processing, 1990, 9, 99-121.	1.2	0
247	Theory and design of perfect reconstruction transmultiplexers and their relation to perfect reconstruction QMF banks. , 1989, , .		4
248	FIR and IIR techniques for bandlimited extrapolation of sequences. , 1989, , .		0
249	Classical sampling theorems in the context of multirate and polyphase digital filter bank structures. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1988, 36, 1480-1495.	2.0	49
250	Compression of Two-Dimensional Band-Limited Signals Using Sub-Sampling Theorems. IETE Journal of Research, 1988, 34, 416-422.	1.8	2
251	Bounded Complex and Lossless Bounded Complex Transfer Functions and their Applications. IETE Journal of Research, 1988, 34, 375-382.	1.8	0
252	A unified structural interpretation of some well-known stability-test procedures for linear systems. Proceedings of the IEEE, 1987, 75, 478-497.	16.4	49

#	Article	IF	Citations
253	On predicting a band-limited signal based on past sample values. Proceedings of the IEEE, 1987, 75, 1125-1127.	16.4	22
254	Synthesis of arbitrary digital transfer functions using allpass-based structures derived via LBR two-pair extraction procedure. Circuits, Systems, and Signal Processing, 1986, 5, 343-370.	1.2	7
255	Low passband sensitivity digital filters: A generalized viewpoint and synthesis procedures. Proceedings of the IEEE, 1984, 72, 404-423.	16.4	123
256	Optimum low cost two channel IIR orthonormal filter bank. , 0, , .		8
257	Fast and robust blind-equalization based on cyclic prefix. , 0, , .		9
258	The best basis problem, compaction problem and PCFB design problems [filter banks]. , 0, , .		3
259	A New Breakthrough In Linear-system Theory: Kharitonov's Result. , 0, , .		4
260	ERROR VARIANCE ANALYSIS OF FLOATING POINT DOT PRODUCT COMPUTATIONS. , 0, , .		1
261	EFFICIENT ADAPTIVE IDENTIFICATION AND EQUALIZATION OF BAND~LIMITED CHANNELS USING MULTIRATE/MULTISTA. , 0, , .		1
262	A spectral factorization approach to pseudo-QMF design. , 0, , .		9
263	Application of DFT filter banks and cosine modulated filter banks in filtering. , 0, , .		10
264	New sampling theorems for MRA subspaces. , 0, , .		1
265	Periodically nonuniform sampling of a new class of bandpass signals. , 0, , .		8
266	Dithering in lattice quantization. , 0, , .		0
267	Two-dimensional four-parallelogram filter banks. , 0, , .		0
268	New results on paraunitary filter banks over finite fields. , 0, , .		1
269	Optimum pre- and postfilters for quantization. , 0, , .		0
270	Two-dimensional linear phase cosine modulated filter banks. , 0, , .		3

#	Article	IF	Citations
271	Theory of optimal orthonormal filter banks. , 0, , .		30
272	On the study of lossless time-varying filter banks. , 0, , .		1
273	Analytical method for 2-channel optimum FIR orthonormal filter banks. , 0, , .		2
274	Theory of cyclic filter banks. , 0, , .		28
275	Optimum quantization of a class of non-bandlimited signals. , 0, , .		1
276	Image halftoning and inverse halftoning for optimized dot diffusion. , 0, , .		3
277	The role of the discrete-time Kalman-Yakubovitch-Popov lemma in designing statistically optimum FIR orthonormal filter banks. , 0, , .		7
278	The design of optimum filters for quantizing a class of non-bandlimited signals. , 0, , .		1
279	On existence of FIR principal component filter banks. , 0, , .		22
280	Optimal nonuniform orthonormal filter banks for subband coding and signal representation. , 0, , .		2
281	Globally optimal FIR filters with applications in source and channel coding. , 0, , .		3
282	Globally optimal two channel FIR orthonormal filter banks adapted to the input signal statistics. , 0, , .		15
283	Optimized orthonormal transforms for SNR improvement by subband processing. , 0, , .		2
284	On optimization of filter banks with denoising applications. , 0, , .		14
285	Principal component filter banks: existence issues, and application to modulated filter banks. , 0, , .		1
286	Optimality of principal component filter banks for discrete multitone communication systems. , 0, , .		12
287	Look up table (LUT) inverse halftoning. , 0, , .		8
288	Look up table (LUT) method for image halftoning. , 0, , .		5

#	Article	IF	Citations
289	Discrete multitone communication with principal component filter banks. , 0, , .		8
290	On optimal transforms for subband domain suppression of colored noise. , 0, , .		0
291	On sampling theorems for non bandlimited signals. , 0, , .		11
292	Optimal histogram modification with MSE metric. , 0, , .		2
293	On power allocation for generalized cyclic-prefix based channel-equalizers. , 0, , .		3
294	A new eigenfilter based method for optimal design of channel shortening equalizers. , 0, , .		4
295	Noise optimized eigenfilter design of time-domain equalizers for DMT systems. , 0, , .		11
296	The role of biorthogonal partners in sampling theory for non bandlimited signals: a review. , 0, , .		0
297	Discrete probability density estimation using multirate DSP models. , 0, , .		4
298	On the least squares signal approximation model for overdecimated rational nonuniform filter banks and applications. , 0, , .		1
299	iterative eigenfilter method for designing optimum overdecimated orthonormal FIR compaction filter banks. , 0, , .		0
300	Adaptive filter-bank tree for power spectrum estimation. , 0, , .		0
301	Improvements in equalization of multiuser CDMA systems: oversampling and nonuniqueness. , 0, , .		0
302	Improved estimation of discrete probability density functions using multirate models. , 0, , .		5
303	Identification of CPG islands using a bank of IIR lowpass filters. , 0, , .		4
304	A frequency domain approach for blind identification with filter bank precoders. , 0, , .		3
305	Iterative algorithm for the design of optimal FIR analysis/synthesis filters for overdecimated filter banks. , 0, , .		0
306	Iterative gradient technique for the design of least squares optimal FIR magnitude squared Nyquist filters. , 0, , .		1

#	Article	IF	Citations
307	Discrete pdf estimation in the presence of noise. , 0, , .		2
308	Identification and location of hot spots in proteins using the short-time discrete fourier transform. , 0, , .		18
309	Transmultiplexers as precoders in modern digital communication: a tutorial review. , 0, , .		28
310	Wavelet-based denoising by customized thresholding. , 0, , .		25
311	Necessary and Sufficient Conditions for LTI Systems to Preserve Signal Richness. , 0, , .		2
312	Optimal Alignment Algorithm for Context-Sensitive Hidden Markov Models. , 0, , .		3
313	Staying Rich: LTI Systems Which Preserve Signal Richness. , 0, , .		2
314	Extensions of the Signal Richness Preservation Problem in LTI Systems. , 0, , .		0
315	IIR Ultra-Wideband Pulse Shaper Design. , 0, , .		0
316	Profile Context-Sensitive HMMs for Probabilistic Modeling of Sequences With Complex Correlations. , 0, , .		8
317	A generalized deterministic algorithm for blind channel identification with filter bank precoders. , 0, , .		6
318	MIMO Radar Spacetime Adaptive Processing and Signal Design. , 0, , 235-281.		12