Martin Bouchard

List of Publications by Year
in descending order

66 papers	910 citations	567281 15 h-index	501196 28 g-index
66 all docs	66 docs citations	66 times ranked	490 citing authors

#	Article	IF	Citations
1	Biometric Classification of Frequency Following Responses to English Vowels. , 2022, , .		2
2	Direction of Arrival Estimation of Moving Sound Sources using Deep Learning. , 2022, , .		1
3	Beamformer-based Multi-source Acoustic DOA Detection System for Hearing Aids. , 2022, , .		0
4	Cloud Processing of Bed Pressure Sensor Data to Detect Sleep Apnea Events. , 2020, , .		5
5	Machine Learning-Based Automatic Detection of Central Sleep Apnea Events From a Pressure Sensitive Mat. IEEE Access, 2020, 8, 173428-173439.	4.2	21
6	Open Set Audio Recognition for Multi-Class Classification With Rejection. IEEE Access, 2020, 8, 146523-146534.	4.2	4
7	Unobtrusive Screening of Central Sleep Apnea From Pressure Sensors Measurements: A Patient-Specific Longitudinal Study. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 3282-3296.	4.7	10
8	A Robust Target Linearly Constrained Minimum Variance Beamformer With Spatial Cues Preservation for Binaural Hearing Aids. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 1549-1563.	5.8	10
9	Beamforming Designs Robust to Propagation Model Estimation Errors for Binaural Hearing Aids. IEEE Access, 2019, 7, 114837-114850.	4.2	5
10	Robust Minimum Variance Distortionless Response Beamformer based on Target Activity Detection in Binaural Hearing Aid Applications. , 2019, , .		3
11	ADAPTIVE DIFFERENTIAL MICROPHONE ARRAY WITH DISTORTIONLESS RESPONSE AT ARBITRARY DIRECTIONS FOR HEARING AID APPLICATIONS. , 2018, , .		2
12	Acoustic environment classification using discrete hartley transform features. , 2017, , .		7
13	Performance evaluation of mixtures of PLDA and conventional PLDA for a small-set speaker verification system. , 2017, , .		0
14	Binaural beamforming with spatial cues preservation for hearing aids in real-life complex acoustic environments. , 2017, , .		3
15	Perceptually motivated binaural beamforming with cues preservation for hearing aids. , 2016, , .		5
16	Short-time multichannel noise correlation matrix estimators for acoustic signals. , 2014, , .		0
17	Musical-noise-free blind speech extraction integrating microphone array and iterative spectral subtraction. Signal Processing, 2014, 102, 226-239.	3.7	16
18	Design of multichannel frequency domain statistical-based enhancement systems preserving spatial cues via spectral distances minimization. Signal Processing, 2013, 93, 321-325.	3.7	10

#	Article	IF	Citations
19	Toward musical-noise-free blind speech extraction: Concept and its applications. , 2013, , .		0
20	A novel application of ARMA modelling to audio coding. , 2013, , .		0
21	Graph theory for the discovery of non-parametric audio objects. , 2012, , .		0
22	Integration of auditory masks into a Locally Competitive Algorithm for sparse representations of audio signals. , 2012, , .		0
23	All-Pole Modeling of Discrete Spectral Powers: A Unified Approach. IEEE Transactions on Audio Speech and Language Processing, 2012, 20, 705-708.	3.2	6
24	Instantaneous Binaural Target PSD Estimation for Hearing Aid Noise Reduction in Complex Acoustic Environments. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 1141-1154.	4.7	38
25	Beamforming for directional sources: Additional estimator and evaluation of performance under different acoustic scenarios. Journal of the Acoustical Society of America, 2011, 129, 2042-2051.	1.1	2
26	Real-world particle filtering-based speech enhancement. , 2010, , .		1
27	Bandwidth extension for speech enhancement. , 2010, , .		7
28	A fast convergence two-step procedure for AR modeling of power spectral densities. , 2010, , .		1
29	Beamforming with microphone arrays for directional sources. Journal of the Acoustical Society of America, 2009, 125, 2098-2104.	1.1	22
30	Improved Noise Power Spectrum Density Estimation for Binaural Hearing Aids Operating in a Diffuse Noise Field Environment. IEEE Transactions on Audio Speech and Language Processing, 2009, 17, 521-533.	3.2	43
31	Speech Enhancement Based on Nonlinear Models Using Particle Filters. IEEE Transactions on Neural Networks, 2009, 20, 1923-1937.	4.2	8
32	Directional sources and beamforming. Proceedings of Meetings on Acoustics, 2009, , .	0.3	1
33	Low-cost modifications of Rao-Blackwellized particle filters for improved speech denoising. Signal Processing, 2008, 88, 2678-2692.	3.7	10
34	Feature Enhancement for Noisy Speech Recognition With a Time-Variant Linear Predictive HMM Structure. IEEE Transactions on Audio Speech and Language Processing, 2008, 16, 891-899.	3.2	5
35	Improved colored noise handling in Kalman Filter-based speech enhancement algorithms. Canadian Conference on Electrical and Computer Engineering, 2008, , .	0.0	9
36	Reduced-complexity proportionate nlms employing block-based selective coefficient updates. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	2

#	Article	IF	Citations
37	Beamformer performance limits in monaural and binaural hearing aid applications. Canadian Conference on Electrical and Computer Engineering, 2008, , .	0.0	3
38	Quality Assessment of Speech Enhanced using Particle Filters. , 2007, , .		9
39	An Exact Relaxed Fast Affine Projection Algorithm for Multichannel Active Noise Control. , 2007, , .		1
40	Pseudo-Affine Projection Algorithms for Multichannel Active Noise Control. IEEE Transactions on Audio Speech and Language Processing, 2007, 15, 1044-1052.	3.2	42
41	Noisy Speech Feature Estimation on the Aurora2 Database using a Switching Linear Dynamic Model. Journal of Multimedia, 2007, 2, .	0.3	7
42	A Classical Adaptive Filtering Blind Signal Separation. , 2006, , .		0
43	Rao-Blackwellised Particle Filters: Examples of Applications. , 2006, , .		10
44	Linear Dynamic Models With Mixture of Experts Architecture for Recognition of Speech Under Additive Noise Conditions. IEEE Signal Processing Letters, 2006, 13, 573-576.	3.6	2
45	Improvement of the convergence speed and the tracking ability of the fast Newton type adaptive filtering (FNTF) algorithm. Signal Processing, 2006, 86, 1704-1719.	3.7	14
46	An RLS-Iterative Inversion Approach for Blind Signal Separation. , 2006, , .		0
47	Performance of an Orthogonal Diversity Combining Detector for Spread-Spectrum Signals. , 2006, , .		0
48	A Wideband Crosstalk Canceller for xDSL Using Common-Mode Information. IEEE Transactions on Communications, 2005, 53, 238-242.	7.8	15
49	The Gauss-Seidel fast affine projection algorithm for multichannel active noise control and sound reproduction systems. International Journal of Adaptive Control and Signal Processing, 2005, 19, 107-123.	4.1	23
50	Online State–Space Modeling Using Recurrent Multilayer Perceptrons with Unscented Kalman Filter. Neural Processing Letters, 2005, 22, 69-84.	3.2	14
51	A multi-criteria model for robust foreground extraction. , 2005, , .		4
52	Decision Feedback Recurrent Neural Equalization With Fast Convergence Rate. IEEE Transactions on Neural Networks, 2005, 16, 699-708.	4.2	34
53	Receiver-based packet loss concealment for pulse code modulation (PCM G.711) coder. Signal Processing, 2004, 84, 663-667.	3.7	7
54	Computational load reduction of fast convergence algorithms for multichannel active noise control. Signal Processing, 2003, 83, 121-134.	3.7	21

#	Article	IF	Citations
55	Multichannel affine and fast affine projection algorithms for active noise control and acoustic equalization systems. IEEE Transactions on Speech and Audio Processing, 2003, 11, 54-60.	1.5	97
56	Multichannel fast affine projection algorithm for active noise Control. , 2002, , .		2
57	Numerically stable fast convergence least-squares algorithms for multichannel active sound cancellation systems and sound deconvolution systems. Signal Processing, 2002, 82, 721-736.	3.7	19
58	New recursive-least-squares algorithms for nonlinear active control of sound and vibration using neural networks. IEEE Transactions on Neural Networks, 2001, 12, 135-147.	4.2	46
59	Inverse structure for active noise control and combined active noise control/sound reproduction systems. IEEE Transactions on Speech and Audio Processing, 2001, 9, 141-151.	1.5	20
60	Faster Convergence and Improved Performance in Least-Squares Training of Neural Networks for Active Sound Cancellation. Lecture Notes in Computer Science, 2001, , 583-592.	1.3	1
61	Actuators positioning for multichannel active control system in circular ducts. Applied Acoustics, 2000, 59, 323-335.	3.3	2
62	Multichannel recursive-least-square algorithms and fast-transversal-filter algorithms for active noise control and sound reproduction systems. IEEE Transactions on Speech and Audio Processing, 2000, 8, 606-618.	1.5	118
63	Active noise control in large circular duct using an error sensors plane. Applied Acoustics, 1999, 57, 357-374.	3.3	6
64	Improved training of neural networks for the nonlinear active control of sound and vibration. IEEE Transactions on Neural Networks, 1999, 10, 391-401.	4.2	124
65	A transform domain optimization to increase the convergence speed of the multichannel filteredâ€x leastâ€meanâ€square algorithm. Journal of the Acoustical Society of America, 1996, 100, 3203-3214.	1.1	10
66	A Parametric Autoregressive Model for the Extraction of Electric Network Frequency Fluctuations in Audio Forensic Authentication. , 0, , .		0