Konrad Kowalczyk

List of Publications by Year
in descending order

47 papers	766 citations	933447 10 h-index	839539 18 g-index
49 all docs	49 docs citations	49 times ranked	603 citing authors

#	Article	IF	Citations
1	Parametric Spatial Sound Processing: A flexible and efficient solution to sound scene acquisition, modification, and reproduction. IEEE Signal Processing Magazine, 2015, 32, 31-42.	5.6	176
2	Room Acoustics Simulation Using 3-D Compact Explicit FDTD Schemes. IEEE Transactions on Audio Speech and Language Processing, 2011, 19, 34-46.	3.2	106
3	Audio Replay Attack Detection Using High-Frequency Features. , 0, , .		94
4	Localization of distinct reflections in rooms using spherical microphone array eigenbeam processing. Journal of the Acoustical Society of America, 2012, 131, 2828-2840.	1.1	66
5	Formulation of Locally Reacting Surfaces in FDTD/K-DWM Modelling of Acoustic Spaces. Acta Acustica United With Acustica, 2008, 94, 891-906.	0.8	35
6	Blind System Identification Using Sparse Learning for TDOA Estimation of Room Reflections. IEEE Signal Processing Letters, 2013, 20, 653-656.	3.6	34
7	Passive Joint Localization and Synchronization of Distributed Microphone Arrays. IEEE Signal Processing Letters, 2019, 26, 292-296.	3.6	26
8	Wideband and Isotropic Room Acoustics Simulation Using 2-D Interpolated FDTD Schemes. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 78-89.	3.2	22
9	Binaural Reproduction of Finite Difference Simulations Using Spherical Array Processing. IEEE/ACM Transactions on Audio Speech and Language Processing, 2015, 23, 2125-2135.	5.8	22
10	Room geometry inference based on spherical microphone array eigenbeam processing. Journal of the Acoustical Society of America, 2013, 134, 2773-2789.	1.1	20
11	Joint DOA and TDOA estimation for 3D localization of reflective surfaces using eigenbeam MVDR and spherical microphone arrays. , 2011, , .		19
12	Comparison of Convolution Types in CNN-based Feature Extraction for Sound Source Localization. , 2021, , .		15
13	Estimation of Acoustic Reflection Coefficients Through Pseudospectrum Matching. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, 22, 125-137.	5.8	11
14	An overview of machine learning and other data-based methods for spatial audio capture, processing, and reproduction. Eurasip Journal on Audio, Speech, and Music Processing, 2022, 2022, .	2.1	10
15	Mixing time prediction using spherical microphone arrays. Journal of the Acoustical Society of America, 2015, 137, EL206-EL212.	1.1	9
16	A Phase Grating Approach to Modeling Surface Diffusion in FDTD Room Acoustics Simulations. IEEE Transactions on Audio Speech and Language Processing, 2011, 19, 528-537.	3.2	8
17	On 2D localization of reflectors using robust beamforming techniques. , 2011, , .		8
18	A comparison of nonstaggered compact FDTD schemes for the 3D wave equation. , 2010, , .		7

#	Article	IF	Citations
19	Sound acquisition in noisy and reverberant environments using virtual microphones. , 2013, , .		7
20	Feature Overview for Joint Modeling of Sound Event Detection and Localization Using a Microphone Array. , 2021, , .		7
21	Split Bregman Approach to Linear Prediction Based Dereverberation With Enforced Speech Sparsity. IEEE Signal Processing Letters, 2021, 28, 942-946.	3.6	7
22	Residual noise control using a parametric multichannel Wiener filter. , 2015, , .		6
23	On Parameter Adaptation in Softmax-Based Cross-Entropy Loss for Improved Convergence Speed and Accuracy in DNN-Based Speaker Recognition. , 0, , .		6
24	Raking early reflection signals for late reverberation and noise reduction. Journal of the Acoustical Society of America, 2019, 145, EL257-EL263.	1.1	5
25	An acoustical zoom based on informed spatial filtering. , 2014, , .		4
26	Extended Kalman filter with probabilistic data association for multiple non-concurrent speaker localization in reverberant environments. , 2014, , .		4
27	On the extraction of early reflection signals for automatic speech recognition. , 2017, , .		4
28	Spine2Net: SpineNet with Res2Net and Time-Squeeze-and-Excitation Blocks for Speaker Recognition. , 0, , .		4
29	Data Diversity for Improving DNN-based Localization of Concurrent Sound Events. , 2021, , .		3
30	On-Line Simulation of 2D Resonators with Reduced Dispersion Error using Compact Implicit Finite Difference Methods. , 2007, , .		2
31	Self-Localization of Distributed Microphone Arrays Using Directional Statistics with DoA Estimation Reliability. , 2019, , .		2
32	Exploiting Rays in Blind Localization of Distributed Sensor Arrays. , 2020, , .		2
33	Incorporation of Localization Information for Sound Source Separation in Spherical Harmonic Domain. , 2021, , .		2
34	Wishart Localization Prior On Spatial Covariance Matrix In Ambisonic Source Separation Using Non-Negative Tensor Factorization. , 2022, , .		2
35	Virtual room acoustics using finite difference methods. How to model and analyse frequency-dependent boundaries?. , 2008, , .		1
36	The SCENIC Project: Environment-aware Sound Sensing and Rendering. Procedia Computer Science, 2011, 7, 150-152.	2.0	1

#	Article	IF	Citations
37	Spatial perception of virtual X-Y recordings. , 2014, , .		1
38	Multichannel Wiener Filter with Early Reflection Raking for Automatic Speech Recognition in Presence of Reverberation. , 2019, , .		1
39	Maximum a Posteriori Estimator for Convolutive Sound Source Separation with Sub-Source Based NTF Model and the Localization Probabilistic Prior on the Mixing Matrix. , 2021, , .		1
40	Combating Reverberation in NTF-Based Speech Separation Using a Sub-Source Weighted Multichannel Wiener Filter and Linear Prediction. , 0, , .		1
41	Sparse Linear Prediction-based Dereverberation for Signal Enhancement in Distant Speaker Verification. , 2021, , .		1
42	Data-based spatial audio processing. Eurasip Journal on Audio, Speech, and Music Processing, 2022, 2022, .	2.1	1
43	Finite difference time domain modeling of phase grating diffusion. , 2010, , .		0
44	Embedded system for acquisition and enhancement of audio signals. , 2016, , .		0
45	Speaker Recognition from Distance Using X-Vectors with Reverberation-Robust Features. , 2019, , .		0
46	Distributed Multiarray Noise Reduction With Online Estimation Of Masks And Spatial Filters. , 2020, , .		0
47	Convolutional Weighted Minimum Mean Square Error Filter for Joint Source Separation and Dereverberation. , 2022, , .		0