

Michael Vorlaender

List of Publications by Year in descending order

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Version: 2024-02-01

106
papers

1,725
citations

331259

21
h-index

315357

38
g-index

113
all docs

113
docs citations

113
times ranked

939
citing authors

#	ARTICLE	IF	CITATIONS
1	Urban Sound Auralization and Visualization Frameworkâ€™ Case Study at IHTApark. Sustainability, 2022, 14, 2026.	1.6	5
2	Linking atmospheric and urban auralization models. Acta Acustica, 2022, 6, 28.	0.4	2
3	Directional sound field decay analysis in performance spaces. Building Acoustics, 2021, 28, 249-263.	1.1	5
4	Interactive real-time auralization of airborne sound insulation in buildings. Acta Acustica, 2021, 5, 19.	0.4	0
5	The image edge model. Acta Acustica, 2021, 5, 17.	0.4	7
6	Atmospheric Ray Tracing: An efficient, open-source framework for finding eigenrays in a stratified, moving medium. Acta Acustica, 2021, 5, 26.	0.4	6
7	Direction of arrival estimation of partial sound sources of vehicles with a two-microphone array. Acta Acustica, 2021, 5, 18.	0.4	0
8	The â€™Missing 6 dBâ€™ Revisited: Influence of Room Acoustics and Binaural Parameters on the Loudness Mismatch Between Headphones and Loudspeakers. Frontiers in Psychology, 2021, 12, 623670.	1.1	5
9	Multizone Sound Field Reproduction Based on Equivalent Source Method. Acoustics Australia, 2021, 49, 317-329.	1.4	5
10	A benchmark for room acoustical simulation. Concept and database. Applied Acoustics, 2021, 176, 107867.	1.7	13
11	Aircraft noiseâ€™ Auralization-based assessment of weather-dependent effects on loudness and sharpness. Journal of the Acoustical Society of America, 2021, 149, 3565-3575.	0.5	8
12	Multi-Detailed 3D Architectural Framework for Sound Perception Research in Virtual Reality. Frontiers in Built Environment, 2021, 7, .	1.2	5
13	A war of coefficients or a meaningless wrangle over practical unessentials?. Journal of the Acoustical Society of America, 2021, 150, R5-R6.	0.5	1
14	Cross-site investigation on head-related and headphone transfer functions: variabilities in relation to loudness balancing. Acta Acustica, 2021, 5, 58.	0.4	0
15	Auralization. RWTHedition, 2020, , .	0.6	35
16	3D Sound Reproduction. RWTHedition, 2020, , 297-321.	0.6	0
17	Simulation of Sound in Rooms. RWTHedition, 2020, , 171-224.	0.6	1
18	Filter Construction for Real-Time Processing. RWTHedition, 2020, , 277-295.	0.6	0

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19	Characterization of Sources. RWTHedition, 2020, , 119-133.	0.6	0
20	Sound Propagation. RWTHedition, 2020, , 31-49.	0.6	0
21	Evaluating the Influence of Phoneme-Dependent Dynamic Speaker Directivity of Embodied Conversational Agents' Speech. , 2020, , .		4
22	Audio-video virtual reality environments in building acoustics: An exemplary study reproducing performance results and subjective ratings of a laboratory listening experiment. Journal of the Acoustical Society of America, 2019, 146, EL310-EL316.	0.5	16
23	Simulation of a coupled room scenario based on geometrical acoustics simulation models. Proceedings of Meetings on Acoustics, 2019, , .	0.3	2
24	A round robin on room acoustical simulation and auralization. Journal of the Acoustical Society of America, 2019, 145, 2746-2760.	0.5	70
25	Flexible data structures for dynamic virtual auditory scenes. Virtual Reality, 2018, 22, 281-295.	4.1	6
26	Room Acoustics – Fundamentals and Computer Simulation. Springer Handbooks, 2018, , 197-215.	0.3	2
27	A demonstrator tool of web-based virtual reality for participatory evaluation of urban sound environment. Landscape and Urban Planning, 2018, 170, 276-282.	3.4	27
28	A Synthesis Model for a Moving Sound Source Based on Beamforming. Acta Acustica United With Acustica, 2018, 104, 351-362.	0.8	5
29	An Extended Binaural Real-Time Auralization System With an Interface to Research Hearing Aids for Experiments on Subjects With Hearing Loss. Trends in Hearing, 2018, 22, 233121651880087.	0.7	17
30	Comparative study of two geometrical acoustic simulation models. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2018, 40, 1.	0.8	4
31	Experimental investigations on sound energy propagation in acoustically coupled volumes using a high-spatial resolution scanning system. Journal of the Acoustical Society of America, 2018, 143, EL437-EL442.	0.5	3
32	How do shared-street design and traffic restriction improve urban soundscape and human experience? – An online survey with virtual reality. Building and Environment, 2018, 143, 318-328.	3.0	39
33	Digitale Signalverarbeitung in der Messtechnik. Fachwissen Technische Akustik, 2018, , 1-28.	0.7	0
34	Generation and analysis of an acoustic radiation pattern database for forty-one musical instruments. Journal of the Acoustical Society of America, 2017, 141, 1246-1256.	0.5	41
35	Sampling the sound field in auditoria using large natural-scale array measurements. Journal of the Acoustical Society of America, 2017, 141, EL300-EL306.	0.5	11
36	Performance of Spatial Windows in the Spatial Fourier Transform Technique for the Angle-Dependent Reflection Factor Measurement. Acta Acustica United With Acustica, 2017, 103, 349-353.	0.8	0

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37	A High Resolution and Full-Spherical Head-Related Transfer Function Database for Different Head-Above-Torso Orientations. AES: Journal of the Audio Engineering Society, 2017, 65, 841-848.	0.8	43
38	Modelling of Urban Near-Road Atmospheric PM Concentrations Using an Artificial Neural Network Approach with Acoustic Data Input. Environments - MDPI, 2017, 4, 26.	1.5	8
39	In Situ Measurement of the Absorption Coefficient Based on a Time-Domain Subtraction Technique with a Particle Velocity Transducer. Acta Acustica United With Acustica, 2016, 102, 945-954.	0.8	3
40	Psychoacoustic analysis of noise and the application of earplugs in an ICU. European Journal of Anaesthesiology, 2016, 33, 14-21.	0.7	15
41	Acoustic centering of a baffled piston in the circular harmonics domain. Journal of the Acoustical Society of America, 2016, 139, 1372-1380.	0.5	0
42	Interactive simulation of aircraft noise in aural and visual virtual environments. Applied Acoustics, 2016, 101, 24-38.	1.7	20
43	Generation of a reference radiation pattern of string instruments using automatic excitation and acoustic centering. Journal of the Acoustical Society of America, 2015, 138, EL480-EL486.	0.5	3
44	Virtual Acoustics. Archives of Acoustics, 2015, 39, 307-318.	0.9	8
45	Influence of wall scattering on the early fine structures of measured room impulse responses. Journal of the Acoustical Society of America, 2015, 137, 1108-1116.	0.5	19
46	Impulsive Noise Detection in Sweep Measurements. Acta Acustica United With Acustica, 2015, 101, 723-730.	0.8	2
47	Virtual reality for architectural acoustics. Journal of Building Performance Simulation, 2015, 8, 15-25.	1.0	41
48	Uncertainty analysis of standardized measurements of random-incidence absorption and scattering coefficients. Journal of the Acoustical Society of America, 2015, 137, 63-74.	0.5	15
49	Acoustic centering of sources with high-order radiation patterns. Journal of the Acoustical Society of America, 2015, 137, 1947-1961.	0.5	15
50	Room Acoustical Parameters as Predictors of Room Acoustical Impression: What Do We Know and What Would We Like to Know?. Acoustics Australia, 2015, 43, 41-48.	1.4	11
51	Through the Hourglass: A Faithful Audiovisual Reconstruction of the Old Montreux Casino. Acoustics Australia, 2015, 43, 49-57.	1.4	5
52	Integrating Real-Time Room Acoustics Simulation into a CAD Modeling Software to Enhance the Architectural Design Process. Buildings, 2014, 4, 113-138.	1.4	20
53	Evaluation and improvement of a model to predict the measurement uncertainty due to the directivity of room acoustical sound sources. Proceedings of Meetings on Acoustics, 2014, , .	0.3	2
54	Effect of boundary diffusers in a reverberation chamber: Standardized diffuse field quantifiers. Journal of the Acoustical Society of America, 2014, 135, 1898-1906.	0.5	13

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55	Simulation and Evaluation of Acoustic Environments. Building Acoustics, 2014, 21, 11-20.	1.1	2
56	Locally or Non-Locally Reacting Boundaries: Does it Make a Significant Acoustic Difference?. Building Acoustics, 2014, 21, 117-124.	1.1	1
57	In-situ Measurements of Surface Reflection Properties. Building Acoustics, 2014, 21, 167-174.	1.1	2
58	Application of the Mirror Source Method for Low Frequency Sound Prediction in Rectangular Rooms. Acta Acustica United With Acustica, 2014, 100, 306-319.	0.8	24
59	Comparison of Noise Compensation Methods for Room Acoustic Impulse Response Evaluations. Acta Acustica United With Acustica, 2014, 100, 320-327.	0.8	27
60	A Framework for the Calculation of Dynamic Crosstalk Cancellation Filters. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, 22, 1345-1354.	4.0	15
61	Combined wave and ray based room acoustic simulations of audio systems in car passenger compartments, Part I: Boundary and source data. Applied Acoustics, 2014, 76, 82-99.	1.7	20
62	Combined wave and ray based room acoustic simulations of audio systems in car passenger compartments, Part II: Comparison of simulations and measurements. Applied Acoustics, 2014, 76, 52-65.	1.7	17
63	Predicting the Interaction Between Structure-Borne Sound Sources and Receiver Structures from Independently Measured Quantities: Case Study of a Washing Machine on a Wooden Joist Floor. Acta Acustica United With Acustica, 2014, 100, 79-92.	0.8	3
64	Interactive Real-Time Simulation and Auralization for Modifiable Rooms. Building Acoustics, 2014, 21, 65-73.	1.1	12
65	Comparison of Hanging Panels and Boundary Diffusers in a Reverberation Chamber. Building Acoustics, 2014, 21, 145-152.	1.1	3
66	Sound Field Classification in Small Microphone Arrays Using Spatial Coherences. IEEE Transactions on Audio Speech and Language Processing, 2013, 21, 1891-1899.	3.8	8
67	Comparison of Strategies to Model Spatial Fluctuations of Room Acoustic Single Number Quantities. Building Acoustics, 2013, 20, 323-334.	1.1	0
68	On the <i>in situ</i> impedance measurement with <i>pu</i> -probes"Simulation of the measurement setup. Journal of the Acoustical Society of America, 2013, 134, 1082-1089.	0.5	13
69	Computer simulations in room acoustics: Concepts and uncertainties. Journal of the Acoustical Society of America, 2013, 133, 1203-1213.	0.5	123
70	Influence of "omnidirectional" loudspeaker directivity on measured room impulse responses. Journal of the Acoustical Society of America, 2013, 134, 3654-3662.	0.5	18
71	The influence of noise on monaural room acoustic parameters utilizing different evaluation methods. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
72	Inversion of a room acoustics model for the determination of acoustical surface properties in enclosed spaces. Proceedings of Meetings on Acoustics, 2013, , .	0.3	3

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73	Signal processing for hemispherical measurement data. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
74	Prediction and measurement of the random-incidence scattering coefficient of periodic reflective rectangular diffuser profiles. Proceedings of Meetings on Acoustics, 2013, , .	0.3	2
75	Including directivity patterns in room acoustical measurements. Proceedings of Meetings on Acoustics, 2013, , .	0.3	5
76	Theoretic considerations on how the directivity of a sound source influences the measured impulse response. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
77	Effect of boundary diffusers in a reverberation chamber: Preliminary investigation. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
78	Simulation of non-locally reacting boundaries with a single domain boundary element method. Proceedings of Meetings on Acoustics, 2013, , .	0.3	3
79	Design of the new public address (PA) system for the cathedral of Mu'ntster, Germany. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
80	Virtual Room Acoustics. A NIME Reader Fifteen Years of New Interfaces for Musical Expression, 2013, , 219-242.	0.1	1
81	Calculation of Head-Related Transfer Functions for Arbitrary Field Points Using Spherical Harmonics Decomposition. Acta Acustica United With Acustica, 2012, 98, 72-82.	0.8	41
82	Interdisciplinary Auralization of Take-off and Landing Procedures for Subjective Assessment in Virtual Reality Environments. , 2012, , .		7
83	Synthesis of room impulse responses for arbitrary source directivities using spherical harmonic decomposition. , 2011, , .		2
84	Open Measurements of Edge Diffraction from a Noise Barrier Scale Model. Building Acoustics, 2011, 18, 47-57.	1.1	1
85	Influence of various uncertainty factors on the result of beamforming measurements. Noise Control Engineering Journal, 2011, 59, 302.	0.2	2
86	Switching in the cocktail party: Exploring intentional control of auditory selective attention.. Journal of Experimental Psychology: Human Perception and Performance, 2011, 37, 1140-1147.	0.7	89
87	Investigation Into the Importance of the Degrees of Freedom for the Characterisation of Structure-Borne Sound Sources: Case Study of a Washing Machine on a Wooden Floor. Acta Acustica United With Acustica, 2011, 97, 940-948.	0.8	1
88	Acoustic centering of sources measured by surrounding spherical microphone arrays. Journal of the Acoustical Society of America, 2011, 130, 2003-2015.	0.5	33
89	Sound Fields in Complex Listening Environments. Trends in Amplification, 2011, 15, 106-115.	2.4	4
90	Efficient Modelling of Absorbing Boundaries in Room Acoustic FE Simulations. Acta Acustica United With Acustica, 2010, 96, 1042-1050.	0.8	21

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91	Channel separation of crosstalk cancellation systems with mismatched and misaligned sound sources. <i>Journal of the Acoustical Society of America</i> , 2009, 126, 1796.	0.5	3
92	Relationship Between the Scattering Coefficients Determined with Coherent Averaging and with Directivity Correlation. <i>Acta Acustica United With Acustica</i> , 2009, 95, 669-677.	0.8	12
93	Anthropometric Parameters Influencing Head-Related Transfer Functions. <i>Acta Acustica United With Acustica</i> , 2009, 95, 331-342.	0.8	24
94	Auralization of spaces. <i>Physics Today</i> , 2009, 62, 35-40.	0.3	6
95	The impact of background speech varying in intelligibility: Effects on cognitive performance and perceived disturbance. <i>Ergonomics</i> , 2008, 51, 719-736.	1.1	87
96	Noise Radiation of Switched Reluctance Drives. , 2007, , .		5
97	Virtual Reality System with Integrated Sound Field Simulation and Reproduction. <i>Eurasip Journal on Advances in Signal Processing</i> , 2007, 2007, .	1.0	61
98	Evaluation of Eustachian tube function by sonotubometry: results and reliability of 8kHz signals in normal subjects. <i>European Archives of Oto-Rhino-Laryngology</i> , 2007, 264, 231-236.	0.8	22
99	About just noticeable differences for aspects of spatial impressions in concert halls. <i>Acoustical Science and Technology</i> , 2005, 26, 185-192.	0.3	10
100	Development of scattering surfaces for concert halls. <i>Applied Acoustics</i> , 2004, 65, 341-355.	1.7	33
101	ROOM ACOUSTICAL SIMULATION ALGORITHM BASED ON THE FREE PATH DISTRIBUTION. <i>Journal of Sound and Vibration</i> , 2000, 232, 129-137.	2.1	9
102	Definition and measurement of random-incidence scattering coefficients. <i>Applied Acoustics</i> , 2000, 60, 187-199.	1.7	94
103	Acoustic load on the ear caused by headphones. <i>Journal of the Acoustical Society of America</i> , 2000, 107, 2082-2088.	0.5	7
104	Recent Progress in Room Acoustical Computer Simulations. <i>Building Acoustics</i> , 1997, 4, 229-246.	1.1	4
105	Practical aspects of MLS measurements in building acoustics. <i>Applied Acoustics</i> , 1997, 52, 239-258.	1.7	50
106	Simulation of the transient and steady-state sound propagation in rooms using a new combined ray-tracing/image-source algorithm. <i>Journal of the Acoustical Society of America</i> , 1989, 86, 172-178.	0.5	195