Peter Birkholz

List of Publications by Year
in descending order

49 papers	617 citations	840776 11 h-index	713466 21 g-index
51 all docs	51 docs citations	51 times ranked	315 citing authors

#	Article	IF	Citations
1	Cluster-Based Input Weight Initialization for Echo State Networks. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 7648-7659.	11.3	9
2	Evaluation of a Non-Personalized Optopalatographic Device for Prospective Use in Functional Post-Stroke Dysphagia Therapy. IEEE Transactions on Biomedical Engineering, 2022, 69, 356-365.	4.2	4
3	Articulatory Synthesis of Vocalized /r/ Allophones in German. IEEE/ACM Transactions on Audio Speech and Language Processing, 2022, 30, 879-889.	5.8	1
4	Monitoring of Partial Discharges in HVDC Power Cables. IEEE Electrical Insulation Magazine, 2022, 38, 7-18.	0.8	12
5	Velocity differences in laryngeal adduction and abduction gestures. Journal of the Acoustical Society of America, 2022, 151, 45-55.	1.1	1
6	Silent speech command word recognition using stepped frequency continuous wave radar. Scientific Reports, 2022, 12, 4192.	3.3	5
7	Estimating underlying articulatory targets of Thai vowels by using deep learning based on generating synthetic samples from a 3D vocal tract model and data augmentation. IEEE Access, 2022, , 1-1.	4.2	0
8	Carina â€" A Corpus of Aligned German Read Speech Including Annotations. , 2022, , .		0
9	PyRCN: A toolbox for exploration and application of Reservoir Computing Networks. Engineering Applications of Artificial Intelligence, 2022, 113, 104964.	8.1	7
10	Efficient 3D Acoustic Simulation of the Vocal Tract by Combining the Multimodal Method and Finite Elements. IEEE Access, 2022, 10, 69922-69938.	4.2	6
11	Feature Engineering and Stacked Echo State Networks for Musical Onset Detection. , 2021, , .		7
12	Effect of wavy trachea walls on the oscillation onset pressure of silicone vocal folds. Journal of the Acoustical Society of America, 2021, 149, 466-475.	1.1	4
13	Unsupervised Pretraining of Echo State Networks for Onset Detection. Lecture Notes in Computer Science, 2021, , 59-70.	1.3	3
14	Comparing fundamental frequency of German vowels produced by German native speakers and Mandarin Chinese learners. JASA Express Letters, 2021, 1, 075203.	1.1	0
15	Reservoir computing with biocompatible organic electrochemical networks for brain-inspired biosignal classification. Science Advances, 2021, 7, eabh0693.	10.3	72
16	Modelling microprosodic effects can lead to an audible improvement in articulatory synthesis. Journal of the Acoustical Society of America, 2021, 150, 1209-1217.	1.1	2
17	Effects of the piriform fossae, transvelar acoustic coupling, and laryngeal wall vibration on the naturalness of articulatory speech synthesis. Speech Communication, 2021, 132, 96-105.	2.8	5
18	Multipitch tracking in music signals using Echo State Networks. , 2021, , .		10

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19	Investigation of resonance strategies of high pitch singing sopranos using dynamic three-dimensional magnetic resonance imaging. Journal of the Acoustical Society of America, 2021, 150, 4191-4202.	1.1	8
20	An acoustic comparison of German tense and lax vowels produced by German native speakers and Mandarin Chinese learners. Journal of the Acoustical Society of America, 2020, 148, EL112-EL118.	1.1	3
21	Printable 3D vocal tract shapes from MRI data and their acoustic and aerodynamic properties. Scientific Data, 2020, 7, 255.	5.3	17
22	Prediction of Voicing and the F0 Contour from Electromagnetic Articulography Data for Articulation-to-Speech Synthesis. , 2020, , .		1
23	An experimental study of tongue body loops in V1-V2-V1 sequences. Journal of Phonetics, 2020, 80, 100965.	1.2	4
24	Cross-Speaker Silent-Speech Command Word Recognition Using Electro-Optical Stomatography. , 2020, , .		6
25	How the peak glottal area affects linear predictive coding-based formant estimates of vowels. Journal of the Acoustical Society of America, 2019, 146, 223-232.	1.1	13
26	How modeling entrance loss and flow separation in a two-mass model affects the oscillation and synthesis quality. Speech Communication, 2019, 110, 108-116.	2.8	3
27	Speaking Rate Changes Affect Phone Durations Differently for Neutral and Emotional Speech. , 2018, , .		0
28	Non-Invasive Silent Phoneme Recognition Using Microwave Signals. IEEE/ACM Transactions on Audio Speech and Language Processing, 2018, 26, 2404-2411.	5.8	13
29	Construction and Evaluation of a Parametric One-Dimensional Vocal Tract Model. IEEE/ACM Transactions on Audio Speech and Language Processing, 2018, 26, 1381-1392.	5.8	4
30	How to precisely measure the volume velocity transfer function of physical vocal tract models by external excitation. PLoS ONE, 2018, 13, e0193708.	2.5	16
31	From Kratzenstein to the Soviet Vocoder: Some Results of a Historic Research Project in Speech Technology. Lecture Notes in Computer Science, 2018, , 215-225.	1.3	0
32	Angle Correction in Optopalatographic Tongue Distance Measurements. IEEE Sensors Journal, 2017, 17, 459-468.	4.7	8
33	Relevance of the Implementation of Teeth in Three-Dimensional Vocal Tract Models. Journal of Speech, Language, and Hearing Research, 2017, 60, 2379-2393.	1.6	11
34	Do long-term tongue piercings affect speech quality?. Logopedics Phoniatrics Vocology, 2017, 42, 126-132.	1.0	2
35	Manipulation of the prosodic features of vocal tract length, nasality and articulatory precision using articulatory synthesis. Computer Speech and Language, 2017, 41, 116-127.	4.3	42
36	Seeing [u] aids vocal learning: Babbling and imitation of vowels using a 3D vocal tract model, reinforcement learning, and reservoir computing. , 2015, , .		14

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37	Articulation and vocal tract acoustics at soprano subject's high fundamental frequencies. Journal of the Acoustical Society of America, 2015, 137, 2586-2595.	1.1	27
38	The contribution of phonation type to the perception of vocal emotions in German: An articulatory synthesis study. Journal of the Acoustical Society of America, 2015, 137, 1503-1512.	1.1	22
39	Estimating vocal tract shapes of Thai vowels from contextual vowel variation. , 2014, , .		2
40	Identifying underlying articulatory targets of Thai vowels from acoustic data based on an analysis-by-synthesis approach. Eurasip Journal on Audio, Speech, and Music Processing, 2014, 2014, .	2.1	8
41	Tongue Contour Reconstruction from Optical and Electrical Palatography. IEEE Signal Processing Letters, 2014, 21, 658-662.	3.6	7
42	Modeling Consonant-Vowel Coarticulation for Articulatory Speech Synthesis. PLoS ONE, 2013, 8, e60603.	2.5	86
43	Model-Based Reproduction of Articulatory Trajectories for Consonantâ€"Vowel Sequences. IEEE Transactions on Audio Speech and Language Processing, 2011, 19, 1422-1433.	3.2	56
44	Simulation of Losses Due to Turbulence in the Time-Varying Vocal System. IEEE Transactions on Audio Speech and Language Processing, 2007, 15, 1218-1226.	3.2	42
45	Intrinsic velocity differences of lip and jaw movements: preliminary results. , 0, , .		5
46	Perceptual Optimization of an Enhanced Geometric Vocal Fold Model for Articulatory Speech Synthesis. , 0, , .		8
47	Influence of temporal discretization schemes on formant frequencies and bandwidths in time domain simulations of the vocal tract system. , 0, , .		25
48	Control of an articulatory speech synthesizer based on dynamic approximation of spatial articulatory targets. , 0, , .		12
49	Articulatory Copy Synthesis Based on a Genetic Algorithm. , 0, , .		3