

# Peter Birkholz

## List of Publications by Year in descending order

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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	Modeling Consonant-Vowel Coarticulation for Articulatory Speech Synthesis. PLoS ONE, 2013, 8, e60603.	2.5	86
2	Reservoir computing with biocompatible organic electrochemical networks for brain-inspired biosignal classification. Science Advances, 2021, 7, eabh0693.	10.3	72
3	Model-Based Reproduction of Articulatory Trajectories for Consonant-Vowel Sequences. IEEE Transactions on Audio Speech and Language Processing, 2011, 19, 1422-1433.	3.2	56
4	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
5	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
6	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
7	Influence of temporal discretization schemes on formant frequencies and bandwidths in time domain simulations of the vocal tract system. , 0, , .		25
8	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
9	Printable 3D vocal tract shapes from MRI data and their acoustic and aerodynamic properties. Scientific Data, 2020, 7, 255.	5.3	17
10	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
11	Seeing [u] aids vocal learning: Babbling and imitation of vowels using a 3D vocal tract model, reinforcement learning, and reservoir computing. , 2015, , .		14
12	Non-Invasive Silent Phoneme Recognition Using Microwave Signals. IEEE/ACM Transactions on Audio Speech and Language Processing, 2018, 26, 2404-2411.	5.8	13
13	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
14	Control of an articulatory speech synthesizer based on dynamic approximation of spatial articulatory targets. , 0, , .		12
15	Monitoring of Partial Discharges in HVDC Power Cables. IEEE Electrical Insulation Magazine, 2022, 38, 7-18.	0.8	12
16	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
17	Multipitch tracking in music signals using Echo State Networks. , 2021, , .		10
18	Cluster-Based Input Weight Initialization for Echo State Networks. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 7648-7659.	11.3	9

#	ARTICLE	IF	CITATIONS
19	Identifying underlying articulatory targets of Thai vowels from acoustic data based on an analysis-by-synthesis approach. <i>Eurasip Journal on Audio, Speech, and Music Processing</i> , 2014, 2014, .	2.1	8
20	Angle Correction in Optopalatographic Tongue Distance Measurements. <i>IEEE Sensors Journal</i> , 2017, 17, 459-468.	4.7	8
21	Perceptual Optimization of an Enhanced Geometric Vocal Fold Model for Articulatory Speech Synthesis. , 0, , .		8
22	Investigation of resonance strategies of high pitch singing sopranos using dynamic three-dimensional magnetic resonance imaging. <i>Journal of the Acoustical Society of America</i> , 2021, 150, 4191-4202.	1.1	8
23	Tongue Contour Reconstruction from Optical and Electrical Palatography. <i>IEEE Signal Processing Letters</i> , 2014, 21, 658-662.	3.6	7
24	Feature Engineering and Stacked Echo State Networks for Musical Onset Detection. , 2021, , .		7
25	PyRCN: A toolbox for exploration and application of Reservoir Computing Networks. <i>Engineering Applications of Artificial Intelligence</i> , 2022, 113, 104964.	8.1	7
26	Cross-Speaker Silent-Speech Command Word Recognition Using Electro-Optical Stomatography. , 2020, , .		6
27	Efficient 3D Acoustic Simulation of the Vocal Tract by Combining the Multimodal Method and Finite Elements. <i>IEEE Access</i> , 2022, 10, 69922-69938.	4.2	6
28	Effects of the piriform fossae, transvelar acoustic coupling, and laryngeal wall vibration on the naturalness of articulatory speech synthesis. <i>Speech Communication</i> , 2021, 132, 96-105.	2.8	5
29	Intrinsic velocity differences of lip and jaw movements: preliminary results. , 0, , .		5
30	Silent speech command word recognition using stepped frequency continuous wave radar. <i>Scientific Reports</i> , 2022, 12, 4192.	3.3	5
31	Construction and Evaluation of a Parametric One-Dimensional Vocal Tract Model. <i>IEEE/ACM Transactions on Audio Speech and Language Processing</i> , 2018, 26, 1381-1392.	5.8	4
32	An experimental study of tongue body loops in V1-V2-V1 sequences. <i>Journal of Phonetics</i> , 2020, 80, 100965.	1.2	4
33	Effect of wavy trachea walls on the oscillation onset pressure of silicone vocal folds. <i>Journal of the Acoustical Society of America</i> , 2021, 149, 466-475.	1.1	4
34	Evaluation of a Non-Personalized Optopalatographic Device for Prospective Use in Functional Post-Stroke Dysphagia Therapy. <i>IEEE Transactions on Biomedical Engineering</i> , 2022, 69, 356-365.	4.2	4
35	How modeling entrance loss and flow separation in a two-mass model affects the oscillation and synthesis quality. <i>Speech Communication</i> , 2019, 110, 108-116.	2.8	3
36	An acoustic comparison of German tense and lax vowels produced by German native speakers and Mandarin Chinese learners. <i>Journal of the Acoustical Society of America</i> , 2020, 148, EL112-EL118.	1.1	3

#	ARTICLE	IF	CITATIONS
37	Unsupervised Pretraining of Echo State Networks for Onset Detection. Lecture Notes in Computer Science, 2021, , 59-70.	1.3	3
38	Articulatory Copy Synthesis Based on a Genetic Algorithm. , 0, , .		3
39	Estimating vocal tract shapes of Thai vowels from contextual vowel variation. , 2014, , .		2
40	Do long-term tongue piercings affect speech quality?. Logopedics Phoniatrics Vocology, 2017, 42, 126-132.	1.0	2
41	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
42	Prediction of Voicing and the F0 Contour from Electromagnetic Articulography Data for Articulation-to-Speech Synthesis. , 2020, , .		1
43	Articulatory Synthesis of Vocalized /r/ Allophones in German. IEEE/ACM Transactions on Audio Speech and Language Processing, 2022, 30, 879-889.	5.8	1
44	Velocity differences in laryngeal adduction and abduction gestures. Journal of the Acoustical Society of America, 2022, 151, 45-55.	1.1	1
45	Speaking Rate Changes Affect Phone Durations Differently for Neutral and Emotional Speech. , 2018, , .		0
46	Comparing fundamental frequency of German vowels produced by German native speakers and Mandarin Chinese learners. JASA Express Letters, 2021, 1, 075203.	1.1	0
47	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
48	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
49	Carina â€“ A Corpus of Aligned German Read Speech Including Annotations. , 2022, , .		0