Marc Arnela

List of Publications by Year
in descending order

25 papers	**341** citations	933447 **10** h-index	839539 **18** g-index
26 all docs	**26** docs citations	**26** times ranked	**160** citing authors

#	Article	IF	Citations
1	Controlling chaotic oscillations in a symmetric two-mass model of the vocal folds. Chaos, Solitons and Fractals, 2022, 159, 112188.	5.1	4
2	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
3	Tuned two-dimensional vocal tracts with piriform fossae for the finite element simulation of vowels. Journal of Sound and Vibration, 2022, 537, 117168.	3.9	1
4	Simulation of vowel–vowel utterances using a <scp>3D</scp> biomechanical–acoustic model. International Journal for Numerical Methods in Biomedical Engineering, 2021, 37, e3407.	2.1	6
5	Resonance tuning in vocal tract acoustics from modal perturbation analysis instead of nonlinear radiation pressure. Journal of Sound and Vibration, 2021, 493, 115826.	3.9	2
6	Characterization of an omnidirectional parametric loudspeaker with exponential sine sweeps. Applied Acoustics, 2021, 182, 108268.	3.3	4
7	Finite element generation of sibilants /s/ and /z/ using random distributions of Kirchhoff vortices. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3302.	2.1	8
8	MRI-Based Vocal Tract Representations for the Three-Dimensional Finite Element Synthesis of Diphthongs. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 2173-2182.	5.8	13
9	Glottal Source Contribution to Higher Order Modes in the Finite Element Synthesis of Vowels. Applied Sciences (Switzerland), 2019, 9, 4535.	2.5	6
10	Reconstruction of vocal tract geometries from biomechanical simulations. International Journal for Numerical Methods in Biomedical Engineering, 2019, 35, e3159.	2.1	5
11	Construction of an Omnidirectional Parametric Loudspeaker Consisting in a Spherical Distribution of Ultrasound Transducers. Sensors, 2018, 18, 4317.	3.8	15
12	Transfer matrices to characterize linear and quadratic acoustic black holes in duct terminations. Journal of Sound and Vibration, 2017, 395, 65-79.	3.9	75
13	Finite Element Synthesis of Diphthongs Using Tuned Two-Dimensional Vocal Tracts. IEEE/ACM Transactions on Audio Speech and Language Processing, 2017, 25, 2013-2023.	5.8	9
14	Influence of lips on the production of vowels based on finite element simulations and experiments. Journal of the Acoustical Society of America, 2016, 139, 2852-2859.	1.1	21
15	A Stabilized Finite Element Method for the Mixed Wave Equation in an ALE Framework With Application to Diphthong Production. Acta Acustica United With Acustica, 2016, 102, 94-106.	0.8	18
16	Influence of vocal tract geometry simplifications on the numerical simulation of vowel sounds. Journal of the Acoustical Society of America, 2016, 140, 1707-1718.	1.1	33
17	Effects of higher order propagation modes in vocal tract like geometries. Journal of the Acoustical Society of America, 2015, 137, 832-843.	1.1	38
18	Two-dimensional vocal tracts with three-dimensional behavior in the numerical generation of vowels. Journal of the Acoustical Society of America, 2014, 135, 369-379.	1.1	14

#	Article	IF	Citations
19	Finite element computation of elliptical vocal tract impedances using the two-microphone transfer function method. Journal of the Acoustical Society of America, 2013, 133, 4197-4209.	1.1	23
20	Effects of head geometry simplifications on acoustic radiation of vowel sounds based on time-domain finite-element simulations. Journal of the Acoustical Society of America, 2013, 134, 2946-2954.	1.1	28
21	Influence of tense, modal and lax phonation on the three-dimensional finite element synthesis of vowel [A]. , 0, , .		1
22	Using a Biomechanical Model and Articulatory Data for the Numerical Production of Vowels. , 0, , .		3
23	A Unified Numerical Simulation of Vowel Production That Comprises Phonation and the Emitted Sound. , 0, , .		2
24	Synthesis of VV Utterances from Muscle Activation to Sound with a 3D Model. , 0, , .		4
25	A Semi-Polar Grid Strategy for the Three-Dimensional Finite Element Simulation of Vowel-Vowel Sequences. , 0, , .		2