Thomas HÃ©lie

List of Publications by Year
in descending order

		1040056	940533
29 papers	264 citations	9 h-index	16 g-index
29 all docs	29 docs citations	29 times ranked	133 citing authors

#	Article	IF	Citations
1	Unidimensional models of acoustic propagation in axisymmetric waveguides. Journal of the Acoustical Society of America, 2003, 114, 2633.	1.1	42
2	Volterra series for solving weakly non-linear partial differential equations: application to a dissipative Burgers' equation. International Journal of Control, 2004, 77, 1071-1082.	1.9	29
3	Computation of Convergence Bounds for Volterra Series of Linear-Analytic Single-Input Systems. IEEE Transactions on Automatic Control, 2011, 56, 2062-2072.	5.7	28
4	Passive Guaranteed Simulation of Analog Audio Circuits: A Port-Hamiltonian Approach. Applied Sciences (Switzerland), 2016, 6, 273.	2.5	27
5	Representations with poles and cuts for the time-domain simulation of fractional systems and irrational transfer functions. Signal Processing, 2006, 86, 2516-2528.	3.7	23
6	Sound synthesis of a nonlinear string using Volterra series. Journal of Sound and Vibration, 2008, 314, 275-306.	3.9	21
7	A class of damping models preserving eigenspaces for linear conservative port-Hamiltonian systems. European Journal of Control, 2013, 19, 486-494.	2.6	17
8	Passive simulation of the nonlinear port-Hamiltonian modeling of a Rhodes Piano. Journal of Sound and Vibration, 2017, 390, 289-309.	3.9	14
9	One-Dimensional Acoustic Models of Horns and Comparison with Measurements. Acta Acustica United With Acustica, 2013, 99, 960-974.	0.8	10
10	Introducing a Green–Volterra series formalism to solve weakly nonlinear boundary problems: Application to Kirchhoff's string. Journal of Sound and Vibration, 2014, 333, 2073-2086.	3.9	9
11	Digital Waveguide Modeling for Wind Instruments: Building a State–Space Representation Based on the Webster–Lokshin Model. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 843-854.	3.2	7
12	From a Model of Lossy Flared Pipes to a General Framework for Simulation of Waveguides. Acta Acustica United With Acustica, 2011, 97, 477-491.	0.8	5
13	Waveguide Modeling of Lossy Flared Acoustic Pipes: Derivation of a Kelly-Lochbaum Structure for Real-Time Simulations. , 2007, , .		4
14	Simulation of the weakly nonlinear propagation in a straight pipe: application to a real-time brassy audio effect. , 2008, , .		4
15	Computable convergence bounds of series expansions for infinite dimensional linear-analytic systems and application. Automatica, 2014, 50, 2334-2340.	5.0	4
16	A Webster-Lokshin Model for Waves with Viscothermal Losses and Impedance Boundary Conditions: Strong Solutions. , 2003, , 66-71.		4
17	Computation of convergence radius and error bounds of Volterra series for single input systems with a polynomial nonlinearity. , 2009, , .		3
18	Nonlinear damping models for linear conservative mechanical systems with preserved eigenspaces: a port-Hamiltonian formulation. IFAC-PapersOnLine, 2015, 48, 200-205.	0.9	3

#	ARTICLE	IF	CITATIONS
19	Asymptotic State Observers for a Simplified Brass Instrument Model. Acta Acustica United With Acustica, 2010, 96, 733-742.	0.8	2
20	Input/output reduced model of a damped nonlinear beam based on Volterra series and modal decomposition with convergence results. Nonlinear Dynamics, 2021, 105, 515-540.	5.2	2
21	ModÃ©lisation physique d'instruments de musique en systÃ¨mes dynamiques et inversion. Journal Europeen Des Systemes Automatises, 2003, 37, 1305-1310.	0.4	2
22	Convergence of series expansions for some infinite dimensional nonlinear systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 282-288.	0.4	1
23	Computation of convergence radius and error bounds of Volterra series for multiple input systems with an analytic nonlinearity in state. , 2010, , .		1
24	Simulation of the Ondes Martenot Ribbon-Controlled Oscillator Using Energy-Balanced Modeling of Nonlinear Time-Varying Electronic Components. AES: Journal of the Audio Engineering Society, 2019, 67, 961-971.	1.0	1
25	Simulation of an Ondes Martenot Circuit. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 2651-2660.	5.8	1
26	Active control of the axisymmetric vibration modes of a tom-tom drum. , 2019, , .		0
27	Correction of the Doppler distortion generated by a vibrating baffled piston. Acta Acustica, 2020, 4, 2.	1.0	0
28	From statistical physics to macroscopic port-Hamiltonian Systems: A roadmap. IFAC-PapersOnLine, 2021, 54, 70-75.	0.9	0
29	Identification of Nonlinear Circuits as Port-Hamiltonian Systems. , 2021, , .		0