Takao Tsuchiya

List of Publications by Year
in descending order

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59	368	759233 12	888059 17
papers	citations	h-index	g-index

60	60	60	60
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical Simulation of Acoustic Imaging Using a Combination of Finite Difference Time Domain and Boundary Integral Equation Methods. Japanese Journal of Applied Physics, 2009, 48, 07GN02.	1.5	30
2	Performances of Various Types of Constrained Interpolation Profile Method for Two-Dimensional Numerical Acoustic Simulation. Japanese Journal of Applied Physics, 2008, 47, 3962-3963.	1.5	28
3	Numerical Simulation of Nonlinear Sound Wave Propagation Using Constrained Interpolation Profile Method: One-Dimensional Case. Japanese Journal of Applied Physics, 2008, 47, 3952-3958.	1.5	23
4	Two-Dimensional Simulation of Nonlinear Acoustic Wave Propagation Using Constrained Interpolation Profile Method. Japanese Journal of Applied Physics, 2009, 48, 07GN01.	1.5	22
5	Digital Equivalent Circuits for Acoustic Field Based on Discrete Huygens' Modeling. Japanese Journal of Applied Physics, 2005, 44, 4297-4300.	1.5	18
6	Numerical Simulation of Sound Wave Propagation with Sound Absorption Using Digital Huygens' Model. Japanese Journal of Applied Physics, 2007, 46, 4809-4812.	1.5	17
7	Examination on Fast Algorithms of Compact Finite Difference Calculation for Finite Difference Time Domain Acoustic Wave Simulation. Japanese Journal of Applied Physics, 2011, 50, 07HC12.	1.5	14
8	A Hardware-Oriented Finite-Difference Time-Domain Algorithm for Sound Field Rendering. Japanese Journal of Applied Physics, 2013, 52, 07HC03.	1.5	14
9	A real-time sound rendering system based on the finite-difference time-domain algorithm. Japanese Journal of Applied Physics, 2014, 53, 07KC14.	1.5	14
10	Reflective boundary condition with arbitrary boundary shape for compact-explicit finite-difference time-domain method. Japanese Journal of Applied Physics, 2015, 54, 07HC02.	1.5	14
11	An Improvement of Absorbing Boundary Condition Based on Algorithm of Constrained Interpolation Profile Method for Finite-Difference Time-Domain Acoustic Simulation. Japanese Journal of Applied Physics, 2010, 49, 07HC09.	1.5	13
12	Three-Dimensional Sound Field Rendering with Digital Boundary Condition using Graphics Processing Unit. Japanese Journal of Applied Physics, 2010, 49, 07HC10.	1.5	12
13	Three-Dimensional Sound Field Analysis Using Compact Explicit-Finite Difference Time Domain Method with Graphics Processing Unit Cluster System. Japanese Journal of Applied Physics, 2013, 52, 07HC11.	1.5	12
14	Equivalent circuit representation of a vibrating structure with piezoelectric transducers and the stability consideration in the active damping control. Smart Materials and Structures, 2001, 10, 389-394.	3.5	11
15	Examination of Sub-Grid Technique for Simulation of Sound Wave Propagation Using Constrained Interpolation Profile Method with Method of Characteristics. Japanese Journal of Applied Physics, 2011, 50, 07HC20.	1.5	9
16	Numerical analysis of linear wave propagation in the atmosphere with temperature gradient for Mach cutoff reproduction. Japanese Journal of Applied Physics, 2019, 58, SGGB01.	1.5	9
17	Moving sound source with an arbitrary trajectory in the two-dimensional finite-difference time-domain method. Japanese Journal of Applied Physics, 2021, 60, SDDB02.	1.5	9
18	A simulation study on nonlinear sound propagation by finite element approach.. Journal of the Acoustical Society of Japan (E), 1992, 13, 223-230.	0.1	8

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19	A real-time sound field renderer based on digital Huygens' model. Journal of Sound and Vibration, 2011, 330, 4302-4312.	3.9	7
20	Two-dimensional finite difference-time domain simulation of moving sound source and receiver. Acoustical Science and Technology, 2022, 43, 57-65.	0.5	7
21	Recent techniques on sound field simulation. Japanese Journal of Applied Physics, 2022, 61, SG0801.	1.5	6
22	Consideration of an absorbing boundary condition based on CIP method for finite-difference time-domain acoustic field analysis. Acoustical Science and Technology, 2009, 30, 132-135.	0.5	5
23	Three-dimensional compact explicit-finite difference time domain scheme with density variation. Japanese Journal of Applied Physics, 2018, 57, 07LC01.	1.5	5
24	Three-dimensional finite difference-time domain simulation of moving sound source and receiver. Japanese Journal of Applied Physics, 2022, 61, SG1036.	1.5	5
25	Numerical examination of effects of discretization spacing on accuracy of sound field reproduction. Acoustical Science and Technology, 2015, 36, 362-365.	0.5	4
26	A Real-Time Sound Field Rendering Processor. Applied Sciences (Switzerland), 2018, 8, 35.	2.5	4
27	Examination on Fast Algorithms of Compact Finite Difference Calculation for Finite Difference Time Domain Acoustic Wave Simulation. Japanese Journal of Applied Physics, 2011, 50, 07HC12.	1.5	4
28	A FPGA implementation of the two-dimensional Digital Huygens' Model. , 2010, , .		3
29	Virtual Auditory Display on a Smartphone for High-Resolution Acoustic Space by Remote Rendering. , 2015, , .		3
30	Effects of spatial aliasing in sound field reproduction: Reproducibility of binaural signals. Acoustical Science and Technology, 2017, 38, 147-153.	0.5	3
31	Sound Field Simulation and Sound Field Rendering. Ieice Ess Fundamentals Review, 2017, 10, 206-218.	0.1	3
32	Design of a FPGA-based Timing Sharing Architecture for Sound Rendering Applications. , 2012, , .		2
33	Subjective Evaluation of High-Definition Virtual Sound Field Using a 157-Channel Surrounding Loudspeaker Array. , 2013, , .		2
34	Large-scale sound field rendering with graphics processing unit cluster for three-dimensional audio with loudspeaker array. Proceedings of Meetings on Acoustics, 2013, , .	0.3	2
35	Numerical simulation of sound wave propagation using multimoment method of characteristics with general Hermite interpolation. Acoustical Science and Technology, 2015, 36, 265-267.	0.5	2
36	Implementation of normal incidence absorption coefficient for boundary condition of digital Huygens' model. Acoustical Science and Technology, 2008, 29, 326-328.	0.5	2

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37	Two-Dimensional Numerical Analysis of Nonlinear Sound Wave Propagation Using Constrained Interpolation Profile Method Including Nonlinear Effect in Advection Equation. Japanese Journal of Applied Physics, 2011, 50, 07HE17.	1.5	2
38	Evaluation of Acoustic Simulation Using Wave Equation Finite Difference Time Domain Method with Compact Finite Differences. Japanese Journal of Applied Physics, 2012, 51, 07GG06.	1.5	2
39	Analysis of echolocation behavior of bats in â€œecho spaceâ€•using acoustic simulation. BMC Biology, 2022, 20, 59.	3.8	2
40	Reconstruction of echoes reaching bats in flight from arbitrary targets by acoustic simulation. Journal of the Acoustical Society of America, 2022, 151, 2127-2134.	1.1	2
41	Effect of bat pinna on sensing using acoustic finite difference time domain simulation. Journal of the Acoustical Society of America, 2022, 151, 4039-4045.	1.1	2
42	Finite element analysis of focusing transducers and their responses. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 53	1.1	1
43	Optimization of the frequency characteristics in saw filter design. Inverse Problems in Science and Engineering, 2000, 8, 473-493.	0.5	1
44	Two-Dimensional Numerical Analysis of Nonlinear Sound Wave Propagation Using Constrained Interpolation Profile Method Including Nonlinear Effect in Advection Equation. Japanese Journal of Applied Physics, 2011, 50, 07HE17.	1.5	1
45	Examination of Absorbing Boundary Condition Using Perfectly Matched Layer for Collocated Orthogonal Grid in Method of Characteristics. Japanese Journal of Applied Physics, 2013, 52, 07HG05.	1.5	1
46	Virtual Auditory Display by Remote Rendering via Computer Network. , 2014, , .		1
47	Design and implementation of a two-dimensional sound field solver based on the Digital Huygensâ€™ Model. Microprocessors and Microsystems, 2014, 38, 216-225.	2.8	1
48	GPU-computing-based high-speed visualization techniques for sound wave propagation using permeable multi-cross-section contours. Acoustical Science and Technology, 2015, 36, 268-270.	0.5	1
49	Simulation of pulsed ultrasonic diffraction in viscous fluids using transmission line matrix method. Journal of the Acoustical Society of America, 2021, 149, 2988-2996.	1.1	1
50	Frequency characteristic optimization in surface acoustic wave filters by DFP approaches. , 1998, , 519-528.		1
51	On the Passive Vibration Damping by Piezoelectric Transducers with Inductive Loading. Lecture Notes in Computer Science, 2005, , 197-204.	1.3	1
52	Examination of Sub-Grid Technique for Simulation of Sound Wave Propagation Using Constrained Interpolation Profile Method with Method of Characteristics. Japanese Journal of Applied Physics, 2011, 50, 07HC20.	1.5	1
53	A novel method for numerical simulation of sound wave propagation using Heptic interpolation profile method. , 2009, , .		0
54	Numerical simulation of sound wave propagation using hybrid technique combining FDTD method and CIP method. , 2009, , .		0

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55	Hybrid MM-MOC-based numerical simulation of acoustic wave propagation with non-uniform grid and perfectly matched layer absorbing boundaries. , 2015, , .		0
56	Evaluation of numerical simulation of acoustic wave propagation using method of characteristics-based constrained interpolation profile (CIP-MOC) method with non-uniform grids. Acoustical Science and Technology, 2017, 38, 31-34.	0.5	0
57	Numerical analysis of three-dimensional acoustic field with background flow using constrained interpolation profile method. Japanese Journal of Applied Physics, 2018, 57, 07LC09.	1.5	0
58	Performance Comparison of Subgrid Techniques in Acoustic Simulation Using the Type-M and Type-C Constrained Interpolation Profile Methods. Japanese Journal of Applied Physics, 2012, 51, 07GG05.	1.5	0
59	Numerical simulations of sound propagation. Choonpa Igaku, 2018, 45, 15-23.	0.0	0