Carlos F Jerez-Hanckes

List of Publications by Year
in descending order

55	468	840776 11	794594 19
papers	citations	h-index	g-index

58	58	58	379
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Spectral Galerkin method for solving Helmholtz boundary integral equations on smooth screens. IMA Journal of Numerical Analysis, 2022, 42, 3571-3608.	2.9	3
2	Isogeometric multilevel quadrature for forward and inverse random acoustic scattering. Computer Methods in Applied Mechanics and Engineering, 2022, 388, 114242.	6.6	3
3	Accelerated CalderÃ³n preconditioning for Maxwell transmission problems. Journal of Computational Physics, 2022, 458, 111099.	3.8	5
4	Local Multiple Traces Formulation for electromagnetics: Stability and preconditioning for smooth geometries. Journal of Computational and Applied Mathematics, 2022, 413, 114356.	2.0	1
5	The effect of quadrature rules on finite element solutions of Maxwell variational problems. Numerische Mathematik, 2021, 147, 903-936.	1.9	2
6	Diffraction efficiency optimization for multilayered parametric holographic gratings. Optics Letters, 2021, 46, 3929.	3.3	2
7	Bi-parametric operator preconditioning. Computers and Mathematics With Applications, 2021, 102, 220-232.	2.7	4
8	Helmholtz Scattering by Random Domains: First-Order Sparse Boundary Element Approximation. SIAM Journal of Scientific Computing, 2020, 42, A2561-A2592.	2.8	3
9	Optimal Operator Preconditioning for Galerkin Boundary Element Methods on 3-Dimensional Screens. SIAM Journal on Numerical Analysis, 2020, 58, 834-857.	2.3	5
10	Domain Uncertainty Quantification in Computational Electromagnetics. SIAM-ASA Journal on Uncertainty Quantification, 2020, 8, 301-341.	2.0	8
11	Fast CalderÃ³n preconditioning for Helmholtz boundary integral equations. Journal of Computational Physics, 2020, 409, 109355.	3.8	6
12	On the Properties of Quasi-periodic Boundary Integral Operators for the Helmholtz Equation. Integral Equations and Operator Theory, 2020, 92, 1.	0.8	4
13	Optimization methods for achieving high diffraction efficiency with perfect electric conducting gratings. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2020, 37, 1316.	1.5	4
14	Derivation of cable equation by multiscale analysis for a model of myelinated axons. Discrete and Continuous Dynamical Systems - Series B, 2020, 25, 815-839.	0.9	6
15	Spectral Galerkin Method for Solving Helmholtz and Laplace Dirichlet Problems on Multiple Open Arcs. Lecture Notes in Computational Science and Engineering, 2020, , 383-393.	0.3	0
16	High-order Galerkin method for Helmholtz and Laplace problems on multiple open arcs. ESAIM: Mathematical Modelling and Numerical Analysis, 2020, 54, 1975-2009.	1.9	3
17	Fast CalderÃ³n Preconditioning for the Electric Field Integral Equation. IEEE Transactions on Antennas and Propagation, 2019, 67, 2555-2564.	5.1	11
18	The outgoing time-harmonic electromagnetic wave in a half-space with non-absorbing impedance boundary condition. ESAIM: Mathematical Modelling and Numerical Analysis, 2019, 53, 325-350.	1.9	1

#	Article	IF	Citations
19	High-temperature tungsten-hafnia optimized selective thermal emitters for thermophotovoltaic applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 231, 61-68.	2.3	26
20	Uncertainty Quantification for Multigroup Diffusion Equations Using Sparse Tensor Approximations. SIAM Journal of Scientific Computing, 2019, 41, B545-B575.	2.8	1
21	Quantifying the Impact of Random Surface Perturbations on Reflective Gratings. IEEE Transactions on Antennas and Propagation, 2018, 66, 838-847.	5.1	11
22	Closed-Form Inverses of the Weakly Singular and Hypersingular Operators on Disks. Integral Equations and Operator Theory, 2018, 90, 1.	0.8	11
23	Multiple traces formulation and semi-implicit scheme for modelling biological cells under electrical stimulation. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 659-703.	1.9	4
24	Electrostatic fog water collection. Journal of Electrostatics, 2018, 96, 128-133.	1.9	33
25	Study of W/HfO₂ grating selective thermal emitters for thermophotovoltaic applications. Optics Express, 2018, 26, A929.	3.4	10
26	Fast Spectral Galerkin Method for Logarithmic Singular Equations on a Segment. Journal of Computational Mathematics, 2018, 36, 128-158.	0.4	5
27	Multitrace/singletrace formulations and Domain Decomposition Methods for the solution of Helmholtz transmission problems for bounded composite scatterers. Journal of Computational Physics, 2017, 350, 343-360.	3.8	6
28	Electromagnetic wave scattering by random surfaces: Shape holomorphy. Mathematical Models and Methods in Applied Sciences, 2017, 27, 2229-2259.	3.3	28
29	Boundary integral formulation and semi-implicit scheme coupling for modeling cells under electrical stimulation. Numerische Mathematik, 2017, 136, 101-145.	1.9	6
30	Extension by zero in discrete trace spaces: Inverse estimates. Mathematics of Computation, 2015, 84, 2589-2615.	2.1	8
31	Local multiple traces formulation for high-frequency scattering problems. Journal of Computational and Applied Mathematics, 2015, 289, 306-321.	2.0	6
32	Mesh-Independent Operator Preconditioning for Boundary Elements on Open Curves. SIAM Journal on Numerical Analysis, 2014, 52, 2295-2314.	2.3	14
33	Domain Decomposition for Boundary Integral Equations via Local Multi-Trace Formulations. Lecture Notes in Computational Science and Engineering, 2014, , 43-57.	0.3	10
34	Sparse tensor edge elements. BIT Numerical Mathematics, 2013, 53, 925-939.	2.0	6
35	Multitrace boundary integral equations. , 2013, , 51-100.		20
36	Boundary integral formulation for the electrical response of a nerve to an extracellular stimulation. , 2013, 2013, 6207-10.		0

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37	Dynamic finite-element model of axon extracellular stimulation. , 2013, , .		3
38	Mirror illumination and spillover measurements of the Atacama Cosmology Telescope. Proceedings of SPIE, 2012, , .	0.8	4
39	Far sidelobes measurement of the Atacama Cosmology Telescope. Proceedings of SPIE, 2012, , .	0.8	2
40	Explicit Variational Forms for the Inverses of Integral Logarithmic Operators Over an Interval. SIAM Journal on Mathematical Analysis, 2012, 44, 2666-2694.	1.9	12
41	Multiple traces boundary integral formulation for Helmholtz transmission problems. Advances in Computational Mathematics, 2012, 37, 39-91.	1.6	48
42	Asymptotics for Helmholtz and Maxwell Solutions in 3-D Open Waveguides. Communications in Computational Physics, 2012, 11, 629-646.	1.7	16
43	Variational forms for the inverses of integral logarithmic operators over an interval. Comptes Rendus Mathematique, 2011, 349, 547-552.	0.3	4
44	Hybrid FEM/BEM modeling of finiteâ€sized photonic crystals for semiconductor laser beams. International Journal for Numerical Methods in Engineering, 2010, 82, 1308-1340.	2.8	2
45	Quasi-periodic surface Green's dyad of a piezoelectric half-space. , 2009, , .		1
46	3-D electrostatic hybrid element model for SAW interdigital transducers. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 686-695.	3.0	4
47	Subwavelength focusing of surface acoustic waves generated by an annular interdigital transducer. Applied Physics Letters, 2008, 92, .	3.3	53
48	8E-5 Full 3D SAW IDT Boundary Element Model for Massless Electrodes. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	3
49	P4L-3 Anisotropic Wave-Surface Shaped Annular Interdigital Transducer. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	2
50	Surface Green's function of a piezoelectric half-space. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 420-428.	3.0	26
51	6A-4 3D Charge Distributions Along Edges and Corners of Electrodes in SAW Transducers. , 2006, , .		1
52	A study of Si wafer bonding via methanol capillarity. Materials Chemistry and Physics, 2003, 77, 751-754.	4.0	7
53	3d piezoelectric surface green~s function. , 0, , .		3
54	Electromagnetic wave scattering by random surfaces: uncertainty quantification via sparse tensor boundary elements. IMA Journal of Numerical Analysis, 0, , drw031.	2.9	1

#	Article	IF	Citations
55	Fast solver for quasi-periodic 2D-Helmholtz scattering in layered media. ESAIM: Mathematical Modelling and Numerical Analysis, 0, , .	1.9	0