

# Carlos F Jerez-Hanckes

## List of Publications by Year in descending order

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Version: 2024-02-01

55  
papers

468  
citations

840776

11  
h-index

794594

19  
g-index

58  
all docs

58  
docs citations

58  
times ranked

379  
citing authors

#	ARTICLE	IF	CITATIONS
1	Subwavelength focusing of surface acoustic waves generated by an annular interdigital transducer. Applied Physics Letters, 2008, 92, .	3.3	53
2	Multiple traces boundary integral formulation for Helmholtz transmission problems. Advances in Computational Mathematics, 2012, 37, 39-91.	1.6	48
3	Electrostatic fog water collection. Journal of Electrostatics, 2018, 96, 128-133.	1.9	33
4	Electromagnetic wave scattering by random surfaces: Shape holomorphy. Mathematical Models and Methods in Applied Sciences, 2017, 27, 2229-2259.	3.3	28
5	Surface Green's function of a piezoelectric half-space. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 420-428.	3.0	26
6	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
7	Multitrace boundary integral equations. , 2013, , 51-100.		20
8	Asymptotics for Helmholtz and Maxwell Solutions in 3-D Open Waveguides. Communications in Computational Physics, 2012, 11, 629-646.	1.7	16
9	Mesh-Independent Operator Preconditioning for Boundary Elements on Open Curves. SIAM Journal on Numerical Analysis, 2014, 52, 2295-2314.	2.3	14
10	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
11	Quantifying the Impact of Random Surface Perturbations on Reflective Gratings. IEEE Transactions on Antennas and Propagation, 2018, 66, 838-847.	5.1	11
12	Closed-Form Inverses of the Weakly Singular and Hypersingular Operators on Disks. Integral Equations and Operator Theory, 2018, 90, 1.	0.8	11
13	Fast Calderón Preconditioning for the Electric Field Integral Equation. IEEE Transactions on Antennas and Propagation, 2019, 67, 2555-2564.	5.1	11
14	Domain Decomposition for Boundary Integral Equations via Local Multi-Trace Formulations. Lecture Notes in Computational Science and Engineering, 2014, , 43-57.	0.3	10
15	Study of $W/HfO_2$ grating selective thermal emitters for thermophotovoltaic applications. Optics Express, 2018, 26, A929.	3.4	10
16	Extension by zero in discrete trace spaces: Inverse estimates. Mathematics of Computation, 2015, 84, 2589-2615.	2.1	8
17	Domain Uncertainty Quantification in Computational Electromagnetics. SIAM-ASA Journal on Uncertainty Quantification, 2020, 8, 301-341.	2.0	8
18	A study of Si wafer bonding via methanol capillarity. Materials Chemistry and Physics, 2003, 77, 751-754.	4.0	7

#	ARTICLE	IF	CITATIONS
19	Sparse tensor edge elements. BIT Numerical Mathematics, 2013, 53, 925-939.	2.0	6
20	Local multiple traces formulation for high-frequency scattering problems. Journal of Computational and Applied Mathematics, 2015, 289, 306-321.	2.0	6
21	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
22	Boundary integral formulation and semi-implicit scheme coupling for modeling cells under electrical stimulation. Numerische Mathematik, 2017, 136, 101-145.	1.9	6
23	Fast Calderón preconditioning for Helmholtz boundary integral equations. Journal of Computational Physics, 2020, 409, 109355.	3.8	6
24	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
25	Optimal Operator Preconditioning for Galerkin Boundary Element Methods on 3-Dimensional Screens. SIAM Journal on Numerical Analysis, 2020, 58, 834-857.	2.3	5
26	Fast Spectral Galerkin Method for Logarithmic Singular Equations on a Segment. Journal of Computational Mathematics, 2018, 36, 128-158.	0.4	5
27	Accelerated Calderón preconditioning for Maxwell transmission problems. Journal of Computational Physics, 2022, 458, 111099.	3.8	5
28	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
29	Variational forms for the inverses of integral logarithmic operators over an interval. Comptes Rendus Mathématique, 2011, 349, 547-552.	0.3	4
30	Mirror illumination and spillover measurements of the Atacama Cosmology Telescope. Proceedings of SPIE, 2012, , .	0.8	4
31	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
32	On the Properties of Quasi-periodic Boundary Integral Operators for the Helmholtz Equation. Integral Equations and Operator Theory, 2020, 92, 1.	0.8	4
33	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
34	Bi-parametric operator preconditioning. Computers and Mathematics With Applications, 2021, 102, 220-232.	2.7	4
35	3d piezoelectric surface green's function. , 0, , .		3
36	8E-5 Full 3D SAW IDT Boundary Element Model for Massless Electrodes. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	3

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37	Dynamic finite-element model of axon extracellular stimulation. , 2013, , .		3
38	Helmholtz Scattering by Random Domains: First-Order Sparse Boundary Element Approximation. SIAM Journal of Scientific Computing, 2020, 42, A2561-A2592.	2.8	3
39	Spectral Galerkin method for solving Helmholtz boundary integral equations on smooth screens. IMA Journal of Numerical Analysis, 2022, 42, 3571-3608.	2.9	3
40	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
41	Isogeometric multilevel quadrature for forward and inverse random acoustic scattering. Computer Methods in Applied Mechanics and Engineering, 2022, 388, 114242.	6.6	3
42	P4L-3 Anisotropic Wave-Surface Shaped Annular Interdigital Transducer. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	2
43	Hybrid FEM/BEM modeling of finite-sized photonic crystals for semiconductor laser beams. International Journal for Numerical Methods in Engineering, 2010, 82, 1308-1340.	2.8	2
44	Far sidelobes measurement of the Atacama Cosmology Telescope. Proceedings of SPIE, 2012, , .	0.8	2
45	The effect of quadrature rules on finite element solutions of Maxwell variational problems. Numerische Mathematik, 2021, 147, 903-936.	1.9	2
46	Diffraction efficiency optimization for multilayered parametric holographic gratings. Optics Letters, 2021, 46, 3929.	3.3	2
47	6A-4 3D Charge Distributions Along Edges and Corners of Electrodes in SAW Transducers. , 2006, , .		1
48	Quasi-periodic surface Green's dyad of a piezoelectric half-space. , 2009, , .		1
49	Electromagnetic wave scattering by random surfaces: uncertainty quantification via sparse tensor boundary elements. IMA Journal of Numerical Analysis, 0, , drw031.	2.9	1
50	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
51	Uncertainty Quantification for Multigroup Diffusion Equations Using Sparse Tensor Approximations. SIAM Journal of Scientific Computing, 2019, 41, B545-B575.	2.8	1
52	Local Multiple Traces Formulation for electromagnetics: Stability and preconditioning for smooth geometries. Journal of Computational and Applied Mathematics, 2022, 413, 114356.	2.0	1
53	Boundary integral formulation for the electrical response of a nerve to an extracellular stimulation. , 2013, 2013, 6207-10.		0
54	Fast solver for quasi-periodic 2D-Helmholtz scattering in layered media. ESAIM: Mathematical Modelling and Numerical Analysis, 0, , .	1.9	0

#	ARTICLE	IF	CITATIONS
55	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