Simon N Chandler-Wilde

List of Publications by Year
in descending order

69 papers	2,095 citations	257450 24 h-index	243625 44 g-index
69 all docs	69 docs citations	69 times ranked	605 citing authors

#	Article	IF	Citations
1	Numerical-asymptotic boundary integral methods in high-frequency acoustic scattering. Acta Numerica, 2012, 21, 89-305.	10.7	165
2	Efficiency of single noise barriers. Journal of Sound and Vibration, 1991, 146, 303-322.	3.9	125
3	Existence, Uniqueness, and Variational Methods for Scattering by Unbounded Rough Surfaces. SIAM Journal on Mathematical Analysis, 2005, 37, 598-618.	1.9	91
4	Efficient calculation of the green function for acoustic propagation above a homogeneous impedance plane. Journal of Sound and Vibration, 1995, 180, 705-724.	3.9	88
5	A Uniqueness Result for Scattering by Infinite Rough Surfaces. SIAM Journal on Applied Mathematics, 1998, 58, 1774-1790.	1.8	80
6	A Galerkin Boundary Element Method for High Frequency Scattering by Convex Polygons. SIAM Journal on Numerical Analysis, 2007, 45, 610-640.	2.3	79
7	Wave-Number-Explicit Bounds in Time-Harmonic Scattering. SIAM Journal on Mathematical Analysis, 2008, 39, 1428-1455.	1.9	78
8	Condition number estimates for combined potential integral operators in acoustics and their boundary element discretisation. Numerical Methods for Partial Differential Equations, 2011, 27, 31-69.	3.6	69
9	Electromagnetic scattering by an inhomogeneous conducting or dielectric layer on a perfectly conducting plate. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1998, 454, 519-542.	2.1	68
10	The performance of t-profile and associated noise barriers. Applied Acoustics, 1991, 32, 269-287.	3.3	66
11	Integral equation methods for scattering by infinite rough surfaces. Mathematical Methods in the Applied Sciences, 2003, 26, 463-488.	2.3	60
12	A Wavenumber Independent Boundary Element Method for an Acoustic Scattering Problem. SIAM Journal on Numerical Analysis, 2006, 43, 2450-2477.	2.3	59
13	Sound propagation above an inhomogeneous impedance plane. Journal of Sound and Vibration, 1985, 98, 475-491.	3.9	57
14	INTERPOLATION OF HILBERT AND SOBOLEV SPACES: QUANTITATIVE ESTIMATES AND COUNTEREXAMPLES. Mathematika, 2015, 61, 414-443.	0.5	53
15	Variational Approach in Weighted Sobolev Spaces to Scattering by Unbounded Rough Surfaces. SIAM Journal on Mathematical Analysis, 2010, 42, 2554-2580.	1.9	51
16	Multiple-edge noise barriers. Applied Acoustics, 1995, 44, 353-367.	3.3	49
17	Acoustic Scattering by an Inhomogeneous Layer on a Rigid Plate. SIAM Journal on Applied Mathematics, 1998, 58, 1931-1950.	1.8	47
18	Padé approximants for the acoustical properties of rigid frame porous media with pore size distributions. Journal of the Acoustical Society of America, 1998, 104, 1198-1209.	1.1	46

#	Article	IF	Citations
19	Scattering of Electromagnetic Waves by Rough Interfaces and Inhomogeneous Layers. SIAM Journal on Mathematical Analysis, 1999, 30, 559-583.	1.9	46
20	Scattering by Rough Surfaces: the Dirichlet Problem for the Helmholtz Equation in a Non-locally Perturbed Half-plane. Mathematical Methods in the Applied Sciences, 1996, 19, 959-976.	2.3	42
21	A Nyström Method for a Class of Integral Equations on the Real Line with Applications to Scattering by Diffraction Gratings and Rough Surfaces. Journal of Integral Equations and Applications, 2000, 12, 281.	0.6	41
22	A Time Domain Point Source Method for Inverse Scattering by Rough Surfaces. Computing (Vienna/New) Tj ETQq0 0 0 rgBT /Overlock 1	4.8	38
23	A new frequency‑uniform coercive boundary integral equation for acoustic scattering. Communications on Pure and Applied Mathematics, 2011, 64, 1384-1415.	3.1	37
24	Acoustic Scattering by Mildly Rough Unbounded Surfaces in Three Dimensions. SIAM Journal on Applied Mathematics, 2006, 66, 1002-1026.	1.8	29
25	The mathematics of scattering by unbounded, rough, inhomogeneous layers. Journal of Computational and Applied Mathematics, 2007, 204, 549-559.	2.0	26
26	A well-posed integral equation formulation for three-dimensional rough surface scattering. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 3683-3705.	2.1	25
27	Prediction of the attenuation of road traffic noise with distance. Journal of Sound and Vibration, 1987, 115, 459-472.	3.9	23
28	On the Solvability of Second Kind Integral Equations on the Real Line. Journal of Mathematical Analysis and Applications, 2000, 245, 28-51.	1.0	23
29	On the Solvability of a Class of Second Kind Integral Equations on Unbounded Domains. Journal of Mathematical Analysis and Applications, 1997, 214, 482-502.	1.0	21
30	A fast two-grid and finite section method for a class of integral equations on the real line with application to an acoustic scattering problem in the half-plane. Numerische Mathematik, 2002, 93, 1-51.	1.9	21
31	The PML for rough surface scattering. Applied Numerical Mathematics, 2009, 59, 2131-2154.	2.1	19
32	Sufficiency of Favard's condition for a class of band-dominated operators on the axis. Journal of Functional Analysis, 2008, 254, 1146-1159.	1.4	18
33	On the stability and convergence of the finite section method for integral equation formulations of rough surface scattering. Mathematical Methods in the Applied Sciences, 2001, 24, 209-232.	2.3	17
34	Solvability and Spectral Properties of Integral Equations on the Real Line: II. L^p-Spaces and Applications. Journal of Integral Equations and Applications, 2003, 15, 1.	0.6	17
35	A collocation method for high-frequency scattering by convex polygons. Journal of Computational and Applied Mathematics, 2007, 204, 334-343.	2.0	17
36	Spectrum of a Feinberg‑Zee random hopping matrix. Journal of Spectral Theory, 2012, 2, 147-179.	0.8	17

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37	On the spectra and pseudospectra of a class of non-self-adjoint random matrices and operators. Operators and Matrices, 2013, , 739-775.	0.3	17
38	Some uniform stability and convergence results for integral equations on the real line and projection methods for their solution. IMA Journal of Numerical Analysis, 1993, 13, 509-535.	2.9	15
39	Eigenvalue problem meets Sierpinski triangle: computing the spectrum of a non-self-adjoint random operator. Operators and Matrices, 2011, , 633-648.	0.3	15
40	Computing Fresnel integrals via modified trapezium rules. Numerische Mathematik, 2014, 128, 635-661.	1.9	14
41	A High Frequency Boundary Element Method for Scattering by Convex Polygons with Impedance Boundary Conditions. Communications in Computational Physics, 2012, 11, 573-593.	1.7	13
42	Wavenumber-Explicit Continuity and Coercivity Estimates in Acoustic Scattering by Planar Screens. Integral Equations and Operator Theory, 2015, 82, 423-449.	0.8	13
43	Limit operators, collective compactness, and the spectral theory of infinite matrices. Memoirs of the American Mathematical Society, 2011, 210, 0-0.	0.9	13
44	A uniformly valid far field asymptotic expansion of the green function for two-dimensional propagation above a homogeneous impedance plane. Journal of Sound and Vibration, 1995, 182, 665-675.	3.9	12
45	Padé approximants for the acoustical characteristics of rigid frame porous media. Journal of the Acoustical Society of America, 1995, 98, 1119-1129.	1.1	12
46	Solvability and spectral properties of integral equations on the real line: I. Weighted spaces of continuous functions. Journal of Mathematical Analysis and Applications, 2002, 272, 276-302.	1.0	12
47	Well-Posed PDE and Integral Equation Formulations for Scattering by Fractal Screens. SIAM Journal on Mathematical Analysis, 2018, 50, 677-717.	1.9	12
48	A DEPTH-INTEGRATED 2D COASTAL AND ESTUARINE MODEL WITH CONFORMAL BOUNDARY-FITTED MESH GENERATION. International Journal for Numerical Methods in Fluids, 1996, 23, 819-846.	1.6	11
49	High frequency scattering by convex curvilinear polygons. Journal of Computational and Applied Mathematics, 2010, 234, 2020-2026.	2.0	11
50	Boundary element methods for acoustic scattering by fractal screens. Numerische Mathematik, 2021, 147, 785-837.	1.9	10
51	A Generalized Collectively Compact Operator Theory with An Application to Integral Equations on Unbounded Domains. Journal of Integral Equations and Applications, 2002, 14, .	0.6	10
52	On the Application of a Generalization of Toeplitz Matrices to the Numerical Solution of Integral Equations with Weakly Singular Convolution Kernels. IMA Journal of Numerical Analysis, 1989, 9, 525-544.	2.9	9
53	Asymptotic Behavior at Infinity of Solutions of Multidimensional Second Kind Integral Equations. Journal of Integral Equations and Applications, 1995, 7, 303.	0.6	9
54	Efficient calculation of two-dimensional periodic and waveguide acoustic Green's functions. Journal of the Acoustical Society of America, 2002, 111, 1610-1622.	1.1	9

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55	Approximate Solution of Second Kind Integral Equations on Infinite Cylindrical Surfaces. SIAM Journal on Numerical Analysis, 1995, 32, 594-609.	2.3	8
56	On Asymptotic Behavior at Infinity and the Finite Section Method for Integral Equations on the Half-Line. Journal of Integral Equations and Applications, 1994, 6, .	0.6	8
57	Long-distance sound propagation over an impedance discontinuity. Journal of Sound and Vibration, 1991, 148, 365-380.	3.9	7
58	Numerical conformal mapping via Chebyshev weighted solutions of Symm's integral equation. Journal of Computational and Applied Mathematics, 1993, 46, 29-48.	2.0	7
59	A Chebyshev collocation method for solving Symm's integral equation for conformal mapping: a partial error analysis. IMA Journal of Numerical Analysis, 1994, 14, 57-79.	2.9	7
60	Title is missing!. Numerische Mathematik, 2002, 93, 1-51.	1.9	7
61	Acoustic Scattering By a Near-Surface Obstacle in a Rigid Porous Medium. Journal of Sound and Vibration, 1994, 170, 161-179.	3.9	6
62	Coburn's lemma and the finite section method for random Jacobi operators. Journal of Functional Analysis, 2016, 270, 802-841.	1.4	5
63	The Complex-Scaled Half-Space Matching Method. SIAM Journal on Mathematical Analysis, 2022, 54, 512-557.	1.9	5
64	Computation of the Complex Error Function Using Modified Trapezoidal Rules. SIAM Journal on Numerical Analysis, 2021, 59, 2346-2367.	2.3	3
65	Evaluation of a boundary integral representation for the conformal mapping of the unit disk onto a simply-connected domain. Advances in Computational Mathematics, 1995, 3, 115-135.	1.6	2
66	A Nystrom method for a boundary value problem arising in unsteady water wave problems. IMA Journal of Numerical Analysis, 2011, 31, 1123-1153.	2.9	2
67	A high-frequency boundary element method for scattering by a class of multiple obstacles. IMA Journal of Numerical Analysis, 2021, 41, 1197-1239.	2.9	2
68	Solvability and Fredholm Properties of Integral Equations on the Half-Line in Weighted Spaces. Integral Equations and Operator Theory, 2005, 51, 5-34.	0.8	1
69	Existence and uniqueness of solutions for acoustic scattering over infinite obstacles. Journal of Mathematical Analysis and Applications, 2008, 345, 305-321.	1.0	0