Leon Cohen

List of Publications by Year
in descending order

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71 papers	5,350 citations	430874 18 h-index	197818 49 g-index
72 all docs	72 docs citations	72 times ranked	2232 citing authors

#	Article	IF	Citations
1	Generating M-Indeterminate Probability Densities by Way of Quantum Mechanics. Journal of Theoretical Probability, 2022, 35, 1537-1555.	0.8	3
2	Phase Space Analysis of the Telegraph Equation. IEEE Transactions on Antennas and Propagation, 2022, , 1-1.	5.1	0
3	Quasi-distributions for arbitrary non-commuting operators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126393.	2.1	2
4	Time-Frequency Analysis: What We Know and What We Donâ€™t. Applied and Numerical Harmonic Analysis, 2020, , 75-101.	0.3	1
5	From von Neumann to Wigner and beyond. European Physical Journal: Special Topics, 2019, 227, 2171-2182.	2.6	3
6	The eigenvalue problem in phase space. Journal of Computational Chemistry, 2018, 39, 1059-1067.	3.3	0
7	The hypervirial and viral theorems in terms of Weyl symbols. Journal of Pseudo-Differential Operators and Applications, 2018, 9, 469-486.	0.7	0
8	Contracted SchrÃ¶dinger equation in quantum phaseâ€space. Journal of Computational Chemistry, 2018, 39, 1068-1075.	3.3	0
9	M-indeterminate distributions in quantum mechanics and the non-overlapping wave function paradox. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 2914-2921.	2.1	3
10	Transformation of quasi-distributions. Physica Scripta, 2018, 93, 094001.	2.5	1
11	Inverse Weyl transform/operator. Journal of Pseudo-Differential Operators and Applications, 2017, 8, 661-678.	0.7	7
12	SchrÃ¶dinger and Heisenberg formulation of classical pulse propagation with dispersion and attenuation. Journal of Modern Optics, 2017, 64, 930-935.	1.3	0
13	Working in phaseâ€space with Wigner and Weyl. Fortschritte Der Physik, 2017, 65, 1600092.	4.4	9
14	Statistics of a space-time random pulse train. Journal of the Acoustical Society of America, 2016, 140, 1937-1944.	1.1	0
15	Pulse propagation in wavelet phase space. , 2016, , .		0
16	Snellâ€™s law and SOFAR channels: a particle view. Journal of Modern Optics, 2016, 63, 23-26.	1.3	0
17	Phase space approach to wave propagation using windowed wave functions. Journal of Modern Optics, 2016, 63, 17-22.	1.3	1
18	Modes and Noise Propagation in Phase Space. Coherent Optical Phenomena, 2015, 2, .	0.2	2

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19	A phase space approach to wave propagation with dispersion. Journal of the Acoustical Society of America, 2015, 138, 1122-1131.	1.1	8
20	On a modification of the Newtonian particle view of rays. Physica Scripta, 2015, 90, 108003.	2.5	0
21	Equations of motion for rays in a Snell's law medium. Journal of the Acoustical Society of America, 2015, 137, EL171-EL177.	1.1	3
22	Pulse propagation and windowed wave functions. Journal of Modern Optics, 2014, 61, 36-42.	1.3	5
23	Joint distributions, the uncertainty principle and positive distributions. Mathematical Structures in Computer Science, 2014, 24, .	0.6	0
24	The conditional Weyl transform and its generalization. Journal of Pseudo-Differential Operators and Applications, 2013, 4, 1-12.	0.7	2
25	The Weyl Operator and its Generalization. , 2013, , .		49
26	The Propagation of Noise Fields in a Dispersive Medium. , 2012, , 19-43.		1
27	Local Virial and Tensor Theorems. Journal of Physical Chemistry A, 2011, 115, 12919-12923.	2.5	2
28	On the generalization of the Edgeworth/Gram-Charlier series. Journal of Mathematical Chemistry, 2011, 49, 625-628.	1.5	2
29	Space-time autocorrelation function for reverberation propagation in a dispersive medium. Journal of Modern Optics, 2011, 58, 2002-2007.	1.3	0
30	Reverberation noise in phase-space. Journal of Modern Optics, 2010, 57, 1949-1953.	1.3	1
31	Bohm trajectories for wave propagation. Journal of Modern Optics, 2009, 56, 2137-2141.	1.3	0
32	Exact and approximate moments of a propagating pulse. Journal of Modern Optics, 2008, 55, 3349-3358.	1.3	39
33	Dispersion-invariant features for classification. Journal of the Acoustical Society of America, 2008, 123, 832-841.	1.1	22
34	Approximate wave function from approximate non-representable Wigner distributions. Journal of Modern Optics, 2008, 55, 3379-3387.	1.3	35
35	Dispersion, Its Effects, and Compensation. , 2007, , 105-125.		6
36	Wigner distribution for operators at different times. Journal of Modern Optics, 2006, 53, 2377-2385.	1.3	0

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37	A time-frequency approach to the adjustable bandwidth concept. , 2006, 16, 454-467.		2
38	The history of noise [on the 100th anniversary of its birth]. IEEE Signal Processing Magazine, 2005, 22, 20-45.	5.6	60
39	Construction and transformation of probability densities*. Integrated Computer-Aided Engineering, 2005, 12, 129-134.	4.6	6
40	A Wigner approximation method for wave propagation. Journal of the Acoustical Society of America, 2005, 118, 1268-1271.	1.1	70
41	Time-frequency Wigner evolution of the quantum Langevin equation. Journal of Modern Optics, 2005, 52, 2223-2232.	1.3	1
42	The phase space of non-stationary noise. Journal of Modern Optics, 2004, 51, 2731-2740.	1.3	6
43	Direct Time-Frequency Characterization of Linear Systems Governed by Differential Equations. IEEE Signal Processing Letters, 2004, 11, 721-724.	3.6	25
44	Wigner quasi-distributions for arbitrary operators. Journal of Modern Optics, 2004, 51, 2761-2769.	1.3	4
45	Phase-space approach to wave propagation with dispersion and damping. , 2004, , .		13
46	The history of noise. , 2004, , .		16
47	Current and quasi-probability phase-space distributions. Journal of Modern Optics, 2003, 50, 2305-2329.	1.3	9
48	Current and quasi-probability phase-space distributions. Journal of Modern Optics, 2003, 50, 2305-2329.	1.3	1
49	Generalized Wigner distributions, moments and conditional correspondence rules. Journal of Modern Optics, 2002, 49, 539-560.	1.3	8
50	Why do wave packets sometimes contract?. Journal of Modern Optics, 2002, 49, 2365-2382.	1.3	4
51	WIGNER DISTRIBUTIONS Local properties of dispersive pulses. Journal of Modern Optics, 2002, 49, 2645-2655.	1.3	11
52	Frequency warping and the Mel scale. IEEE Signal Processing Letters, 2002, 9, 104-107.	3.6	28
53	The Wigner distribution for classical systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 302, 149-155.	2.1	52
54	Instantaneous frequency and group delay of a filtered signal. Journal of the Franklin Institute, 2000, 337, 329-346.	3.4	15

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55	Fitting the Mel scale. , 1999, , .		45
56	Generalization of the Gram-Charlier/Edgeworth Series and Application to Time-Frequency Analysis. Multidimensional Systems and Signal Processing, 1998, 9, 363-372.	2.6	9
57	A general approach for obtaining joint representations in signal analysis. I. Characteristic function operator method. IEEE Transactions on Signal Processing, 1996, 44, 1080-1090.	5.3	28
58	Local values in quantum mechanics. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 212, 315-319.	2.1	38
59	The scale representation. IEEE Transactions on Signal Processing, 1993, 41, 3275-3292.	5.3	179
60	Time-frequency distributions-a review. Proceedings of the IEEE, 1989, 77, 941-981.	21.3	2,935
61	Rules of probability in quantum mechanics. Foundations of Physics, 1988, 18, 983-998.	1.3	16
62	Instantaneous Frequency, Its Standard Deviation And Multicomponent Signals. Proceedings of SPIE, 1988, 0975, 186.	0.8	59
63	Note on â€˜â€˜Time dependence of a general class of quantum distribution functionsâ€™â€™. Physical Review A, 1987, 35, 433-436.	2.5	1
64	Positive time-frequency distribution functions. IEEE Transactions on Acoustics, Speech, and Signal Processing, 1985, 33, 31-38.	2.0	136
65	Local kinetic energy in quantum mechanics. Journal of Chemical Physics, 1979, 70, 788.	3.0	120
66	The tensor virial theorem in quantum mechanics. Journal of Mathematical Physics, 1978, 19, 1838-1840.	1.1	8
67	Hierarchy equations for reduced density matrices. Physical Review A, 1976, 13, 927-930.	2.5	159
68	Generalized Phase-Space Distribution Functions. Journal of Mathematical Physics, 1966, 7, 781-786.	1.1	1,008
69	Can Quantum Mechanics Be Formulated as a Classical Probability Theory?. Philosophy of Science, 1966, 33, 317-322.	1.0	70
70	Time-frequency methods for biological signal estimation. , 0, , .		0
71	The instantaneous spectral band. , 0, , .		1