Alex B Kostinski

List of Publications by Year
in descending order

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102 papers	2,704 citations	147801 31 h-index	223800 46 g-index
104 all docs	104 docs citations	104 times ranked	2493 citing authors

#	Article	IF	Citations
1	Scale-dependent droplet clustering in turbulent clouds. Journal of Fluid Mechanics, 2001, 434, 389-398.	3.4	136
2	Absorbing aerosols at high relative humidity: linking hygroscopic growth to optical properties. Atmospheric Chemistry and Physics, 2012, 12, 5511-5521.	4.9	91
3	On the extinction of radiation by a homogeneous but spatially correlated random medium. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 1929.	1.5	83
4	Fluctuations and Luck in Droplet Growth by Coalescence. Bulletin of the American Meteorological Society, 2005, 86, 235-244.	3.3	77
5	What is a Raindrop Size Distribution?. Bulletin of the American Meteorological Society, 2001, 82, 1169-1177.	3.3	75
6	Do all raindrops fall at terminal speed?. Geophysical Research Letters, 2009, 36, .	4.0	75
7	Fluctuation Properties of Precipitation. Part I: On Deviations of Single-Size Drop Counts from the Poisson Distribution. Journals of the Atmospheric Sciences, 1997, 54, 2174-2186.	1.7	72
8	A Simple Necessary and Sufficient Condition on Physically Realizable Mueller Matrices. Journal of Modern Optics, 1993, 40, 471-481.	1.3	71
9	Fast Imaging of Freezing Drops: No Preference for Nucleation at the Contact Line. Journal of Physical Chemistry Letters, 2011, 2, 1449-1454.	4.6	70
10	Towards quantifying droplet clustering in clouds. Quarterly Journal of the Royal Meteorological Society, 2002, 128, 1043-1057.	2.7	68
11	Effect of particle non-sphericity on satellite monitoring of drifting volcanic ash clouds. Journal of Quantitative Spectroscopy and Radiative Transfer, 1999, 63, 613-630.	2.3	65
12	Super-exponential extinction of radiation in a negatively correlated random medium. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 75, 13-20.	2.3	62
13	Aerosols' influence on the interplay between condensation, evaporation and rain in warm cumulus cloud. Atmospheric Chemistry and Physics, 2008, 8, 15-24.	4.9	62
14	On the Spatial Distribution of Cloud Particles. Journals of the Atmospheric Sciences, 2000, 57, 901-915.	1.7	60
15	Comparison of TOMS and AVHRR volcanic ash retrievals from the August 1992 eruption of Mt. Spurr. Geophysical Research Letters, 1999, 26, 455-458.	4.0	57
16	Critical comments to results of investigations of drop collisions in turbulent clouds. Atmospheric Research, 2007, 86, 1-20.	4.1	52
17	Discernible rhythm in the spatio/temporal distributions of transatlantic dust. Atmospheric Chemistry and Physics, 2012, 12, 2253-2262.	4.9	52
18	Oneâ€sided Achromatic Phase Apodization for Imaging of Extrasolar Planets. Astrophysical Journal, 2004, 605, 892-901.	4.5	51

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19	Surfactant properties of atmospheric and model humicâ€like substances (HULIS). Geophysical Research Letters, 2007, 34, .	4.0	51
20	Nucleation at the Contact Line Observed on Nanotextured Surfaces. Physical Review Letters, 2014, 113, 235701.	7.8	51
21	Terrestrial glint seen from deep space: Oriented ice crystals detected from the Lagrangian point. Geophysical Research Letters, 2017, 44, 5197-5202.	4.0	46
22	CALIPSO observations of transatlantic dust: vertical stratification and effect of clouds. Atmospheric Chemistry and Physics, 2012, 12, 11339-11354.	4.9	45
23	Fluctuation Properties of Precipitation. Part VI: Observations of Hyperfine Clustering and Drop Size Distribution Structures in Three-Dimensional Rain. Journals of the Atmospheric Sciences, 2000, 57, 373-388.	1.7	41
24	Fluctuation Properties of Precipitation. Part II: Reconsideration of the Meaning and Measurement of Raindrop Size Distributions. Journals of the Atmospheric Sciences, 1998, 55, 283-294.	1.7	39
25	Disdrometer Network Observations of Finescale Spatialâ€“Temporal Clustering in Rain. Journals of the Atmospheric Sciences, 2015, 72, 1648-1666.	1.7	39
26	Reversible Record Breaking and Variability: Temperature Distributions across the Globe. Journal of Applied Meteorology and Climatology, 2010, 49, 1681-1691.	1.5	38
27	Bounds on Spectral Dispersion from Fermi-Detected Gamma Ray Bursts. Physical Review Letters, 2012, 108, 231103.	7.8	38
28	Comprehensive tool for calculation of radiative fluxes: illustration of shortwave aerosol radiative effect sensitivities to the details in aerosol and underlying surface characteristics. Atmospheric Chemistry and Physics, 2016, 16, 5763-5780.	4.9	37
29	Further evidence for superterminal raindrops. Geophysical Research Letters, 2014, 41, 6914-6918.	4.0	35
30	Fluctuation Properties of Precipitation. Part III: On the Ubiquity and Emergence of the Exponential Drop Size Spectra. Journals of the Atmospheric Sciences, 1999, 56, 111-121.	1.7	33
31	High-Speed Imaging of Freezing Drops: Still No Preference for the Contact Line. Journal of Physical Chemistry C, 2013, 117, 6195-6200.	3.1	33
32	Cloud droplets to drizzle: Contribution of transition drops to microphysical and optical properties of marine stratocumulus clouds. Geophysical Research Letters, 2017, 44, 8002-8010.	4.0	33
33	Phase signature for particle detection with digital in-line holography. Optics Letters, 2006, 31, 1399.	3.3	32
34	On the extinction of radiation by a homogeneous but spatially correlated random medium: reply to comment. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2002, 19, 2521.	1.5	31
35	Depth-of-focus reduction for digital in-line holography of particle fields. Optics Letters, 2005, 30, 1303.	3.3	30
36	Shapeâ€induced gravitational sorting of Saharan dust during transatlantic voyage: Evidence from CALIOP lidar depolarization measurements. Geophysical Research Letters, 2013, 40, 3281-3286.	4.0	30

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37	Fluctuation Properties of Precipitation. Part V: Distribution of Rain Ratesâ€"Theory and Observations in Clustered Rain. Journals of the Atmospheric Sciences, 1999, 56, 3920-3932.	1.7	29
38	Characterization of cumulus cloud fields using trajectories in the center of gravity versus water mass phase space: 2. Aerosol effects on warm convective clouds. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6356-6373.	3.3	28
39	Fine-Scale Droplet Clustering in Atmospheric Clouds: 3D Radial Distribution Function from Airborne Digital Holography. Physical Review Letters, 2018, 121, 204501.	7.8	28
40	Fluctuation Properties of Precipitation. Part IV: Finescale Clustering of Drops in Variable Rain. Journals of the Atmospheric Sciences, 1999, 56, 82-91.	1.7	26
41	Mineral content analysis of atmospheric dust using hyperspectral information from space. Geophysical Research Letters, 2009, 36, .	4.0	24
42	Characterization of cumulus cloud fields using trajectories in the center of gravity versus water mass phase space: 1. Cloud tracking and phase space description. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6336-6355.	3.3	24
43	Observations and Analysis of Uncorrelated Rain. Journals of the Atmospheric Sciences, 2005, 62, 4071-4083.	1.7	23
44	Entropic Aspects of Supercooled Droplet Freezing. Journals of the Atmospheric Sciences, 2008, 65, 2961-2971.	1.7	23
45	Global association of aerosol with flash density of intense lightning. Environmental Research Letters, 2017, 12, 114037.	5.2	22
46	Is Contact Nucleation Caused by Pressure Perturbation?. Atmosphere, 2020, 11, 1.	2.3	22
47	Hyperspectral spaceborne imaging of dust-laden flows: Anatomy of Saharan dust storm from the BodÃ©lÃ© Depression. Remote Sensing of Environment, 2011, 115, 1013-1024.	11.0	20
48	Record-Breaking Statistics for Random Walks in the Presence of Measurement Error and Noise. Physical Review Letters, 2013, 110, 180602.	7.8	20
49	Scaling of Drizzle Virga Depth With Cloud Thickness for Marine Stratocumulus Clouds. Geophysical Research Letters, 2018, 45, 3746-3753.	4.0	20
50	Polarimetric matched filter for coherent imaging. Canadian Journal of Physics, 1988, 66, 871-877.	1.1	19
51	Drizzle rates versus cloud depths for marine stratocumuli. Environmental Research Letters, 2008, 3, 045019.	5.2	19
52	Diffusion of Water Molecules in Amorphous Silica. IEEE Electron Device Letters, 2012, 33, 863-865.	3.9	19
53	Laboratory Measurements of Contact Freezing by Dust and Bacteria at Temperatures of Mixed-Phase Clouds. Journals of the Atmospheric Sciences, 2014, 71, 3659-3667.	1.7	18
54	On the Gain of a Passive Linear Depolarizing System. Journal of Modern Optics, 1992, 39, 1947-1952.	1.3	17

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55	Raindrops large and small. Nature Physics, 2009, 5, 624-625.	16.7	17
56	On the Variability of Drop Size Distributions over Areas. Journals of the Atmospheric Sciences, 2015, 72, 1386-1397.	1.7	17
57	Enrichment of surfaceâ€active compounds in coalescing cloud drops. Geophysical Research Letters, 2008, 35, .	4.0	16
58	Partially Coherent Backscatter in Radar Observations of Precipitation. Journals of the Atmospheric Sciences, 2010, 67, 1928-1946.	1.7	15
59	Longwave radiative effect of the cloud twilight zone. Nature Geoscience, 2020, 13, 669-673.	12.9	15
60	A Technique to Measure Ice Nuclei in the Contact Mode. Journal of Atmospheric and Oceanic Technology, 2014, 31, 913-922.	1.3	14
61	Characterization of Dust Particlesâ€™ 3D Shape and Roughness with Nanometer Resolution. Aerosol Science and Technology, 2015, 49, 229-238.	3.1	14
62	Dispersion Aerosol Indirect Effect in Turbulent Clouds: Laboratory Measurements of Effective Radius. Geophysical Research Letters, 2018, 45, 10738-10745.	4.0	14
63	Observational bounds on atmospheric heating by aerosol absorption: Radiative signature of transatlantic dust. Geophysical Research Letters, 2012, 39, .	4.0	13
64	Measurements of the Vapor Pressure of Supercooled Water Using Infrared Spectroscopy. Journal of Atmospheric and Oceanic Technology, 2008, 25, 1724-1729.	1.3	12
65	Detection of Spatial Correlations among Aerosol Particles. Aerosol Science and Technology, 2003, 37, 476-485.	3.1	11
66	Nonthermal ice nucleation observed at distorted contact lines of supercooled water drops. Physical Review E, 2018, 97, 023103.	2.1	11
67	The Gulf of Eilat/Aqaba: a natural driven cavity?. Geophysical and Astrophysical Fluid Dynamics, 2010, 104, 301-308.	1.2	10
68	Heat of Freezing for Supercooled Water: Measurements at Atmospheric Pressure. Journal of Physical Chemistry A, 2011, 115, 5729-5734.	2.5	10
69	The Effect of Stochastic Cloud Structure on the Icing Process. Journals of the Atmospheric Sciences, 2000, 57, 2883-2891.	1.7	9
70	Direct Observations of Coherent Backscatter of Radar Waves in Precipitation. Journals of the Atmospheric Sciences, 2010, 67, 3000-3005.	1.7	9
71	Effect of coarse marine aerosols on stratocumulus clouds. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	9
72	Record setting during dispersive transport in porous media. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	9

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73	Organization and Oscillations in Simulated Shallow Convective Clouds. Journal of Advances in Modeling Earth Systems, 2018, 10, 2287-2299.	3.8	9
74	Deep Space Observations of Sun Glints from Marine Ice Clouds. IEEE Geoscience and Remote Sensing Letters, 2020, 17, 735-739.	3.1	9
75	The Use of Optimal Polarizations for Studying the Microphysics of Precipitation: Nonattenuating Wavelengths. Journal of Atmospheric and Oceanic Technology, 1995, 12, 96-114.	1.3	8
76	An Example of Persistent Microstructure in a Long Rain Event. Journal of Hydrometeorology, 2016, 17, 1661-1673.	1.9	8
77	Secular Changes in Atmospheric Turbidity over Iraq and a Possible Link to Military Activity. Remote Sensing, 2020, 12, 1526.	4.0	8
78	Holographic Observations of Centimeter-Scale Nonuniformities within Marine Stratocumulus Clouds. Journals of the Atmospheric Sciences, 2020, 77, 499-512.	1.7	8
79	Deep Space Observations of Terrestrial Glitter. Earth and Space Science, 2021, 8, .	2.6	7
80	Non-Rayleigh Signal Statistics in Clustered Statistically Homogeneous Rain. Journal of Atmospheric and Oceanic Technology, 1999, 16, 575-583.	1.3	6
81	Minimum principles in electromagnetic scattering by small aspherical particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 131, 194-201.	2.3	5
82	Universal Rank-Order Transform to Extract Signals from Noisy Data. Physical Review X, 2019, 9, .	8.9	5
83	Deep Space Observations of Cloud Glints: Spectral and Seasonal Dependence. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	5
84	Diel cycle of sea spray aerosol concentration. Nature Communications, 2021, 12, 5476.	12.8	5
85	A Random Wave Method for Detecting Phase Imbalance in a Coherent Radar Receiver. Journal of Atmospheric and Oceanic Technology, 1993, 10, 887-891.	1.3	4
86	Pupil phase apodization for imaging of faint companions in prescribed regions. Journal of Modern Optics, 2005, 52, 2467-2474.	1.3	4
87	Phase-modulated pupil for achromatic imaging of faint companions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 320, 5-8.	2.1	3
88	Temperature variability and early clustering of record-breaking events. Theoretical and Applied Climatology, 2016, 124, 825-833.	2.8	3
89	The Consistent Behavior of Tropical Rain: Average Reflectivity Vertical Profiles Determined by Rain Top Height. Journal of Hydrometeorology, 2017, 18, 591-609.	1.9	3
90	On the Detection of Statistical Heterogeneity in Rain Measurements. Journal of Atmospheric and Oceanic Technology, 2018, 35, 1399-1413.	1.3	3

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91	Detection of unknown signals in arbitrary noise. Physical Review E, 2020, 102, 032221.	2.1	2
92	Extraction of unknown signals in arbitrary noise. Physical Review E, 2021, 103, 022130.	2.1	2
93	Modeled velopharyngeal orifice area prediction during simulated stop consonant production in the presence of increased nasal airway resistance. The Cleft Palate Journal, 1985, 22, 149-53.	0.6	2
94	Free shear turbulence intensity anisotropies and the energy cascade. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 107, 120-124.	2.1	1
95	Spaceborne Radar Sensing of Precipitation above an Ocean Surface: Polarization Contrast Study. Journal of Atmospheric and Oceanic Technology, 1993, 10, 736-751.	1.3	1
96	Response from Authors to Comment on â€œDetection of Spatial Correlations Among Aerosol Particlesâ€• Aerosol Science and Technology, 2004, 38, 129-130.	3.1	1
97	Supplement to: Fluctuations and Luck in Droplet Growth by Coalescence. Bulletin of the American Meteorological Society, 2005, 86, ES1-ES2.	3.3	1
98	Minimum principles in electromagnetic scattering by small aspherical particles: Extension to differential cross-sections. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 241, 106720.	2.3	1
99	A fast algorithm for computing a matrix transform used to detect trends in noisy data. Computer Physics Communications, 2020, 254, 107382.	7.5	1
100	Operational Detection of Sun Glints in DSCOVR EPIC Images. Frontiers in Remote Sensing, 2021, 2, .	3.5	0
101	Predictions of modeled palatopharyngeal port openings under conditions simulating pharyngeal flap reconstruction. The Cleft Palate Journal, 1985, 22, 154-6.	0.6	0
102	Signals as departures from random walks. Physical Review E, 2022, 105, .	2.1	0