Johannes Markkanen

List of Publications by Year
in descending order

49	642	567281 15	610901 24
papers	citations	h-index	g-index

51	51	51	591
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	VLT spectropolarimetry of comet 67P: dust environment around the end of its intense southern summer. Astronomy and Astrophysics, 2022, 657, A40.	5.1	5
2	How much is enough? The convergence of finite sample scattering properties to those of infinite media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 262, 107524.	2.3	10
3	An update of the correlation between polarimetric and thermal properties of cometary dust. Astronomy and Astrophysics, 2021, 650, L7.	5.1	3
4	Rigorous light-scattering simulations of nanophase iron space-weathering effects on reflectance spectra of olivine grains. Icarus, 2020, 345, 113727.	2.5	15
5	The Dust-to-Gas Ratio, Size Distribution, and Dust Fall-Back Fraction of Comet 67P/Churyumov-Gerasimenko: Inferences From Linking the Optical and Dynamical Properties of the Inner Comae. Frontiers in Physics, 2020, 8, .	2.1	30
6	Thermophysical model for icy cometary dust particles. Astronomy and Astrophysics, 2020, 643, A16.	5.1	5
7	Scattering of light by a large, densely packed agglomerate of small silica spheres. Optics Letters, 2020, 45, 1679.	3.3	5
8	Scattering And Absorption of Light in Planetary Regoliths. Journal of Visualized Experiments, 2019, , .	0.3	7
9	Scattering, absorption, and thermal emission by large cometary dust particles: Synoptic numerical solution. Astronomy and Astrophysics, 2019, 631, A164.	5.1	11
10	Non-spherical particles in optical tweezers: A numerical solution. PLoS ONE, 2019, 14, e0225773.	2.5	6
11	Radiative transfer with reciprocal transactions: Numerical method and its implementation. PLoS ONE, 2019, 14, e0210155.	2.5	17
12	Polarized scattering by Gaussian random particles under radiative torques. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 205, 40-49.	2.3	4
13	Interpretation of the Phase Functions Measured by the OSIRIS Instrument for Comet 67P/Churyumovâ€“Gerasimenko. Astrophysical Journal Letters, 2018, 868, L16.	8.3	34
14	Multiple scattering of light in discrete random media using incoherent interactions. Optics Letters, 2018, 43, 683.	3.3	37
15	Scattering and absorption in dense discrete random media of irregular particles. Optics Letters, 2018, 43, 2925.	3.3	18
16	A 3-D Tensorial Integral Formulation of Scattering Containing Intriguing Relations. IEEE Transactions on Antennas and Propagation, 2018, 66, 5274-5281.	5.1	5
17	Numerical validation of a boundary element method with E and E/N as the boundary unknowns. , 2018, , .		0
18	Fast superposition T-matrix solution for clusters with arbitrarily-shaped constituent particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 189, 181-188.	2.3	43

#	Article	IF	Citations
19	Multiple Scattering in Discrete Random Media Using Firstâ€Order Incoherent Interactions. Radio Science, 2017, 52, 1419-1431.	1.6	8
20	Numerical Analysis of the Potential Formulation of the Volume Integral Equation for Electromagnetic Scattering. Radio Science, 2017, 52, 1301-1311.	1.6	4
21	Dynamics of small particles in electromagnetic radiation fields: A numerical solution. Radio Science, 2017, 52, 1016-1029.	1.6	9
22	Multiple scattering by dense random media: Volume-element extinction. , 2016, , .		2
23	Dynamics of interstellar dust particles in electromagnetic radiation fields. , 2016, , .		0
24	Morphological Models for Inhomogeneous Particles: Light Scattering by Aerosols, Cometary Dust, and Living Cells. , 2016, , 299-337.		3
25	Controlled time integration for the numerical simulation of meteor radar reflections. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 178, 295-305.	2.3	8
26	Multiple scattering by dense random media: Numerical solution. , 2016, , .		1
27	On the spectrum and preconditioning of electromagnetic volume integral equations. , 2016, , .		1
28	Validation of radiative transfer and coherent backscattering for discrete random media. , 2016, , .		2
29	Volume potential-integral-equation formulation for electromagnetic scattering by dielectric objects. , 2016, , .		2
30	Current-Based Volume Integral Equation Formulation for Bianisotropic Materials. IEEE Transactions on Antennas and Propagation, 2016, 64, 3470-3477.	5.1	7
31	Numerical comparison of spectral properties of volume-integral-equation formulations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 178, 269-275.	2.3	18
32	On the applicability of discrete dipole approximation for plasmonic particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 169, 23-35.	2.3	19
33	Inhomogeneous particle model for light-scattering by cometary dust. Planetary and Space Science, 2015, 118, 164-172.	1.7	8
34	Polarized backscattering by clusters of spherical particles. Optics Letters, 2015, 40, 3663.	3.3	7
35	SURFACE AND VOLUME INTEGRAL EQUATION METHODS FOR TIME-HARMONIC SOLUTIONS OF MAXWELL'S EQUATIONS (Invited Paper). Progress in Electromagnetics Research, 2014, 149, 15-44.	4.4	54
36	Discrete Helmholtz Decomposition for Electric Current Volume Integral Equation Formulation. IEEE Transactions on Antennas and Propagation, 2014, 62, 6282-6289.	5.1	16

#	Article	IF	Citations
37	Discretization of Electric Current Volume Integral Equation With Piecewise Linear Basis Functions. IEEE Transactions on Antennas and Propagation, 2014, 62, 4877-4880.	5.1	10
38	Broadband Multilevel Fast Multipole Algorithm for Electric-Magnetic Current Volume Integral Equation. IEEE Transactions on Antennas and Propagation, 2013, 61, 4393-4397.	5.1	24
39	Error-controllable and well-conditioned mom solutions in computational electromagnetics: ultimate surface integral-equation formulation [open problems in cem]. IEEE Antennas and Propagation Magazine, 2013, 55, 310-331.	1.4	16
40	Volume integral equation methods in computational electromagnetics. , 2013, , .		7
41	Discretization of Volume Integral Equation Formulations for Extremely Anisotropic Materials. IEEE Transactions on Antennas and Propagation, 2012, 60, 5195-5202.	5.1	75
42	Analysis of Volume Integral Equation Formulations for Scattering by High-Contrast Penetrable Objects. IEEE Transactions on Antennas and Propagation, 2012, 60, 2367-2374.	5.1	52
43	Computation of Scattering by DB Objects With Surface Integral Equation Method. IEEE Transactions on Antennas and Propagation, 2011, 59, 154-161.	5.1	9
44	Realization of spherical Dâ€²Bâ€² boundary by a layer of wave-guiding medium. Metamaterials, 2011, 5, 149-154.	2.2	12
45	Analysis of single unknown volume integral equation for general scatterers. , 2011, , .		0
46	Material realizations of extreme electromagnetic boundary conditions and metasurfaces. , 2011, , .		7
47	Numerical methods for scattering problems expressed in terms of normal field components and their normal derivatives. , 2010, , .		1
48	Integral Equation Solution for the <formula> <tex>${m D}^{prime}{m B}^{prime}$</tex> </formula> Boundary Condition. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 526-529.	4.0	3
49	A COMPOSITE MODEL FOR REFLECTANCE AND POLARISATION OF LIGHT FROM GRANULATE MATERIALS. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, V-1-2020, 375-382.	0.0	2