

# Zhen-Sen Wu

## List of Publications by Year in descending order

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134  
papers

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471509

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all docs

135  
docs citations

135  
times ranked

786  
citing authors

#	ARTICLE	IF	CITATIONS
1	Propagation of a terahertz Bessel vortex beam through a homogeneous magnetized plasma slab. Waves in Random and Complex Media, 2022, 32, 1535-1550.	2.7	6
2	Integrated Physical Optics for Calculating Electric-Large Metallic Sphere Scattering Irradiated by Vortex Wave in Microwave Frequency Band. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1288-1292.	4.0	4
3	Inverse Synthetic Aperture LiDAR Imaging of Rough Targets under Small Rotation Angles. Remote Sensing, 2022, 14, 2694.	4.0	0
4	Phase Turbulence Prediction Method for Line-of-Sight Multiple-Input Multiple-Output Links Caused by Atmospheric Environment. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1867-1871.	4.0	0
5	GPU-Accelerated Computation of EM Scattering of a Time-Evolving Oceanic Surface Model II: EM Scattering of Actual Oceanic Surface. Remote Sensing, 2022, 14, 2727.	4.0	2
6	Time delay of ionospheric TEC storms to geomagnetic storms and pre-storm disturbance events in East Asia. Advances in Space Research, 2021, 67, 1535-1545.	2.6	3
7	Multiscale Decomposition Prediction of Propagation Loss in Oceanic Tropospheric Ducts. Remote Sensing, 2021, 13, 1173.	4.0	8
8	Researching on the Deterministic Channel Models for Urban Microcells Considering Diffraction Effects. Energies, 2021, 14, 2143.	3.1	2
9	Thomson scattering of a vector Bessel vortex beam by a non-relativistic electron. Physics of Plasmas, 2021, 28, .	1.9	3
10	Inversion for Inhomogeneous Surface Duct without a Base Layer Based on Ocean-Scattered Low-Elevation BDS Signals. Remote Sensing, 2021, 13, 3914.	4.0	1
11	Statistical Study of Ionospheric Equivalent Slab Thickness at Guam Magnetic Equatorial Location. Remote Sensing, 2021, 13, 5175.	4.0	4
12	Simulation of Spatiotemporal Variation of Evaporation Duct Height based on WRF Model with Experimental Validation. , 2021, , .		0
13	Study on 340 GHz Wave Scintillation Characteristics Based on Experimental Data. , 2021, , .		0
14	Behavior from Phase Factor Approximate Upon the Beam Propagation in Bessel Beam Angular Spectrum Expansion. , 2021, , .		0
15	Study on the Scattering Coefficients of the Cement Surface at 28GHz. , 2021, , .		0
16	Statistical study of the time delay of ionospheric TEC storms to geomagnetic storms in Taoyuan, Taiwan. Advances in Space Research, 2020, 65, 86-94.	2.6	2
17	THz wave background radiation at upper troposphere. Multimedia Tools and Applications, 2020, 79, 8767-8780.	3.9	0
18	Deep learning for inversion of significant wave height based on actual sea surface backscattering coefficient model. Multimedia Tools and Applications, 2020, 79, 34173-34193.	3.9	4

#	ARTICLE	IF	CITATIONS
19	GPU-Accelerated Computation of Time-Evolving Electromagnetic Backscattering Field From Large Dynamic Sea Surfaces. IEEE Transactions on Industrial Informatics, 2020, 16, 3187-3197.	11.3	14
20	Research on Sea Clutter Reflectivity Using Deep Learning Model in Industry 4.0. IEEE Transactions on Industrial Informatics, 2020, 16, 5929-5937.	11.3	22
21	Inversion Method of Regional Range-Dependent Surface Ducts with a Base Layer by Doppler Weather Radar Echoes Based on WRF Model. Atmosphere, 2020, 11, 754.	2.3	12
22	Vector Rayleigh Diffraction of High-Power Laser Diode Beam in Optical Communication. International Journal of Optics, 2020, 2020, 1-7.	1.4	0
23	Scattering of a Gaussian beam by an anisotropic-coated eccentric conducting circular cylinder. International Journal of Microwave and Wireless Technologies, 2020, 12, 900-905.	1.9	0
24	Scattering of Electromagnetic Waves With Orbital Angular Momentum on Metallic Sphere. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 1365-1369.	4.0	8
25	Stability and dynamics of chiral nanoparticles in lateral optical binding induced by high-order Bessel beams. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 243, 106824.	2.3	2
26	Laser Attenuation Model in Low Visibility Fog. , 2019, , .		0
27	Scattering of Plane Waves From an Infinite Dielectric Periodic Surface. Radio Science, 2019, 54, 758-769.	1.6	1
28	Simulation of full-polarization electromagnetic backscattering characteristics of large number of high-density chaff clouds. , 2019, , .		6
29	THz Scattering Characteristics of Simple Body. , 2019, , .		2
30	A Central Symmetrical and Low-Profile Omnidirectional Circularly Polarized Antenna. International Journal of Antennas and Propagation, 2019, 2019, 1-12.	1.2	0
31	Scattering from a multilayered chiral sphere: Internal and near fields. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 232, 156-164.	2.3	0
32	Generation of multiple beams carrying different orbital angular momentum modes based on anisotropic holographic metasurfaces in the radio-frequency domain. Applied Physics Letters, 2019, 114, .	3.3	41
33	Sea Clutter Amplitude Prediction Using a Long Short-Term Memory Neural Network. Remote Sensing, 2019, 11, 2826.	4.0	16
34	OAM crosstalk of multiple coaxial THz vortex beams propagating through an inhomogeneous unmagnetized plasma slab. Physics of Plasmas, 2019, 26, .	1.9	4
35	Evolution of linear edge dislocation in atmospheric turbulence and free space. Journal of Modern Optics, 2019, 66, 17-25.	1.3	5
36	Numerical simulation for echo characteristics of laser beams reflected by retro-reflectors in atmospheric turbulence. Optik, 2019, 179, 244-251.	2.9	8

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37	Parallel BRDF-based infrared radiation simulation of aerial targets implemented on Intel Xeon processor and Xeon Phi coprocessor. <i>Journal of Real-Time Image Processing</i> , 2019, 16, 49-60.	3.5	3
38	Scattering of a Gaussian beam by an anisotropically coated circular cylinder. <i>Waves in Random and Complex Media</i> , 2019, 29, 54-62.	2.7	1
39	Statistical characteristics of a Gaussian beam reflected by a retro-reflector in atmospheric turbulence. <i>Optik</i> , 2018, 158, 1361-1369.	2.9	10
40	Electromagnetic Scattering from Deterministic Sea Surface With Oceanic Internal Waves via the Variable-Coefficient Gardener Model. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2018, 11, 355-366.	4.9	11
41	Study of infrared reflection characteristics of aerial target using MODIS data on GPU. <i>Journal of Real-Time Image Processing</i> , 2018, 15, 643-655.	3.5	1
42	Scattering and propagation of a Laguerre-Gaussian vortex beam by uniaxial anisotropic bispheres. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 209, 1-9.	2.3	9
43	Research on anomaly detection algorithm based on generalization latency of telecommunication network. <i>Future Generation Computer Systems</i> , 2018, 85, 9-18.	7.5	6
44	Transmission Characteristics of Polarized Light in Low Visibility Fog. , 2018, , .		0
45	Analysis of the Co-channel Interference caused by Atmospheric Duct and Tropospheric scattering. , 2018, , .		3
46	Study of spatial characteristics of artificial field aligned scattering. , 2018, , .		0
47	Numerical Simulation of Scattering from an Infinite Dielectric Periodic Surface. , 2018, , .		0
48	Analysis on the Distribution of Random Rough Surface Scattering by Monte-Carlo Method. , 2018, , .		4
49	Difference Scattering Field Properties between Multilayered Defect Particles and Slightly Rough Optical Surface. , 2018, , .		0
50	Distortion of Polarized Bessel Vortex Beams Propagation in Sandstorm. , 2018, , .		0
51	Paraxial Propagation of the Second-order Airy Vortex Beams in the Free Space. , 2018, , .		0
52	Experimental study on surface scattering characteristics of wall and ground in the millimeter wave. , 2018, , .		2
53	Parallel Computation of EM Backscattering from Large Three-Dimensional Sea Surface with CUDA. <i>Sensors</i> , 2018, 18, 3656.	3.8	14
54	Design of Multiple-Polarization Reflectarray for Orbital Angular Momentum Wave in Radio Frequency. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2018, 17, 2269-2273.	4.0	18

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55	Propagation of arbitrarily polarized terahertz Bessel vortex beam in inhomogeneous unmagnetized plasma slab. <i>Physics of Plasmas</i> , 2018, 25, 123505.	1.9	7
56	Effect of nanoscale roughness on optical trapping properties of surface plasmon polaritons exerted on nanoparticle. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 219, 339-349.	2.3	8
57	Modified model of equivalent height for predicting atmospheric attenuation at frequencies below 350 GHz. <i>IET Microwaves, Antennas and Propagation</i> , 2018, 12, 1420-1427.	1.4	3
58	Features of X-Band Radar Backscattering Simulation Based on the Ocean Environmental Parameters in China Offshore Seas. <i>Sensors</i> , 2018, 18, 2450.	3.8	2
59	A New Rain Attenuation Prediction Model for the Earth-Space Links. <i>IEEE Transactions on Antennas and Propagation</i> , 2018, 66, 5432-5442.	5.1	25
60	GPU-Accelerated Massively Parallel Computation of Electromagnetic Scattering of a Time-Evolving Oceanic Surface Model I: Time-Evolving Oceanic Surface Generation. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2018, 11, 2752-2762.	4.9	9
61	Reflection, Transmission, and Absorption of Vortex Beams Propagation in an Inhomogeneous Magnetized Plasma Slab. <i>IEEE Transactions on Antennas and Propagation</i> , 2018, 66, 4194-4201.	5.1	11
62	Bayesian method application for color demosaicking. <i>Optical Engineering</i> , 2018, 57, 1.	1.0	11
63	Retrieval Method for Complex Refractivity From Reflection Measurements of Rough Surfaces. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2017, 16, 1581-1584.	4.0	5
64	Ionospheric effects on repeat-pass SAR interferometry. <i>Advances in Space Research</i> , 2017, 60, 1504-1515.	2.6	6
65	A Model of Telecommunication Network Performance Anomaly Detection Based on Service Features Clustering. <i>IEEE Access</i> , 2017, 5, 17589-17596.	4.2	8
66	Determination of the complex refractivity of Au, Cu and Al in terahertz and far-infrared regions from reflection spectra measurements. <i>Infrared Physics and Technology</i> , 2017, 80, 58-64.	2.9	7
67	Filter-based Bayer Pattern CFA Demosaicking. <i>Circuits, Systems, and Signal Processing</i> , 2017, 36, 2917-2940.	2.0	8
68	Bilateral Filtering and Directional Differentiation for Bayer Demosaicking. <i>IEEE Sensors Journal</i> , 2017, 17, 726-734.	4.7	14
69	The Big Data Processing of HF Sky-Wave Radar Sea Echo for Detection of Sea Moving Targets. <i>International Journal of Information Technology and Web Engineering</i> , 2017, 12, 56-71.	1.6	1
70	Propagation Characteristics of Oblique Incident Terahertz Wave in Nonuniform Dusty Plasma. <i>International Journal of Antennas and Propagation</i> , 2016, 2016, 1-6.	1.2	6
71	Analysis and study on the prediction model of rain attenuation in short path. , 2016, , .		0
72	Electromagnetic scattering for multilayered spheres induced by laser sheet beam. , 2016, , .		1

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73	Difference field scattering properties between inlaid redundant particles and slightly rough optical surface. , 2016, , .		1
74	Statistical analysis of signatures and contributing factors of atmospheric ducts based on the sounding data. , 2016, , .		0
75	Low latitude ionospheric tomography based on the multi-station method. , 2016, , .		0
76	A study of electromagnetic scattering from sea surface with breaking waves using generalized forward-backward method. , 2016, , .		2
77	The analysis on Doppler spectrum of 2-D sea clutter in multi-band. , 2016, , .		0
78	Scattering of a uniaxial anisotropic sphere incident by a Laguerre-Gaussian vortex beam. , 2016, , .		1
79	Numerical simulation of abnormal incoherent scatter spectra based on Zakharov model. , 2016, , .		1
80	The study of the rough medium surface by improved IPO. , 2016, , .		0
81	Study on the maximum calculation height and the maximum propagation angle of the troposcatter wide-angle parabolic equation method. IET Microwaves, Antennas and Propagation, 2016, 10, 686-691.	1.4	6
82	A temporal three-dimensional simulation of samarium release in the ionosphere. Journal of Geophysical Research: Space Physics, 2016, 121, 10,508.	2.4	20
83	Scattering from a multilayered chiral sphere using an iterative method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 173, 72-82.	2.3	15
84	Scattering of an anisotropic sphere by an arbitrarily incident Hermite-Gaussian beam. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 170, 117-130.	2.3	7
85	Light scattering of a Laguerre-Gaussian vortex beam by a chiral sphere. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, 475.	1.5	31
86	Parallel Computation of Aerial Target Reflection of Background Infrared Radiation: Performance Comparison of OpenMP, OpenACC, and CUDA Implementations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 1653-1662.	4.9	22
87	Study on the Prediction of Troposcatter Transmission Loss. IEEE Transactions on Antennas and Propagation, 2016, 64, 1071-1079.	5.1	19
88	Scattering of Plasma Anisotropic Spherical Particle Incident by a High-order Bessel Beam. Procedia Engineering, 2015, 102, 167-173.	1.2	0
89	Optical Binding Force between Two Chiral Spheres by an Incident On-axis Gaussian Beam. Procedia Engineering, 2015, 102, 329-335.	1.2	5
90	Superresolution of Hyperspectral Image Using Advanced Nonlocal Means Filter and Iterative Back Projection. Journal of Sensors, 2015, 2015, 1-5.	1.1	1

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91	Improvements for scattering from a large-sized chiral cylinder at an oblique incidence. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 162, 50-55.	2.3	8
92	Backscatter amplification effect for a reflected partially coherent Gaussian beam in turbulent medium. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 163, 1-6.	2.3	3
93	An efficient spatial deblocking of images with DCT compression. , 2015, 42, 80-88.		17
94	Scattering of a general partially coherent beam from a diffuse target in atmospheric turbulence. Chinese Physics B, 2014, 23, 094202.	1.4	2
95	Effect of window function on absorbing layers top boundary in parabolic equation. , 2014, , .		3
96	The Brewster angel effect for backscattering analysis of sea spike at a low grazing angle. , 2014, , .		0
97	Two-frequency mutual coherence function of UV pulses in soot aerosols. , 2014, , .		0
98	A study of composite electromagnetic scattering from rough sea surface and missile-like target basing on the efficient numerical algorithm. , 2014, , .		0
99	High-efficiency numerical computing in low-grazing scattering from sea surface using resistive tapering and forward-backward method. , 2014, , .		1
100	Study on the scale relation of electromagnetic scattering from perfectly conducting target. , 2014, , .		2
101	Inversion of ground parameters using genetic algorithms and engineering modeling for bistaticscattering. , 2014, , .		0
102	The application of PE in the propagation of VLF wave in earth-ionosphere waveguide. , 2014, , .		0
103	Statistic of a Gaussian beam from an arbitrary rough target in the single passage atmospheric turbulence. Science China: Physics, Mechanics and Astronomy, 2014, 57, 1854-1859.	5.1	1
104	Theoretical model and experimental study of beam scattering from ocean surface. , 2014, , .		1
105	Characteristics of aerial targets under Earth-atmosphere environment in visible band based on MODIS data. , 2014, , .		0
106	Analysis of abnormally enhanced ion line power spectra structure in ionospheric heating experiments. , 2014, , .		0
107	The analysis of double-peaked spectrum in the enhanced plasma lines. , 2014, , .		0
108	GPU-Accelerated Computation for Electromagnetic Scattering of a Double-Layer Vegetation Model. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 1799-1806.	4.9	21

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109	Accelerating the Calculation of Scattering of Complex Targets from Background Radiation with CUDA, OpenACC and OpenHMPP. , 2013, , .		0
110	Speckle statistical properties of Gaussian beam from a semi-rough target in the atmospheric turbulence. Optik, 2013, 124, 6760-6764.	2.9	4
111	Analysis of the radiation force and torque exerted on a chiral sphere by a Gaussian beam. Optics Express, 2013, 21, 8677.	3.4	51
112	Analysis of rainbow scattering by a chiral sphere. Optics Express, 2013, 21, 21879.	3.4	12
113	Calculation of electromagnetic scattering by a large chiral sphere. Applied Optics, 2012, 51, 6661.	1.8	38
114	Scattering of a partially coherent Gaussian-Schell beam from a diffuse target in slant atmospheric turbulence. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 1531.	1.5	16
115	POLARIZATION CHARACTERISTICS OF A PARTIALLY COHERENT GAUSSIAN SCHELL-MODEL BEAM IN SLANT ATMOSPHERIC TURBULENCE. Progress in Electromagnetics Research, 2011, 121, 453-468.	4.4	9
116	GPS total electron content and surface latent heat flux variations before the 11 March 2011 M9.0 Sendai earthquake. Advances in Space Research, 2011, 48, 1311-1317.	2.6	30
117	Anomalous enhancement of electric field derived from ionosonde data before the great Wenchuan earthquake. Advances in Space Research, 2011, 47, 1001-1005.	2.6	27
118	Performance comparison of GA, PSO, and DE approaches in estimating low atmospheric refractivity profiles. Wuhan University Journal of Natural Sciences, 2010, 15, 433-439.	0.4	6
119	Forecasting the ionospheric fOF2 parameter one hour ahead using a support vector machine technique. Journal of Atmospheric and Solar-Terrestrial Physics, 2010, 72, 1341-1347.	1.6	12
120	Electromagnetic scattering for a uniaxial anisotropic sphere in an off-axis obliquely incident Gaussian beam. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 1457.	1.5	31
121	AN IMPROVED TWO-SCALE MODEL WITH VOLUME SCATTERING FOR THE DYNAMIC OCEAN SURFACE. Progress in Electromagnetics Research, 2009, 89, 39-56.	4.4	31
122	HIGH RESOLUTION RANGE PROFILE IDENTIFYING SIMULATION OF LASER RADAR BASED ON PULSE BEAM SCATTERING CHARACTERISTICS OF TARGETS. Progress in Electromagnetics Research, 2009, 96, 193-204.	4.4	15
123	Synthesis and Characterization of Three Diverse Coordination Frameworks under Co-ligand Intervention. Chinese Journal of Chemistry, 2009, 27, 317-323.	4.9	0
124	Solar cycle variation of the monthly median foF2 at Chongqing station, China. Advances in Space Research, 2008, 42, 213-218.	2.6	17
125	Potential Effects of the Ionosphere on Space-Based SAR Imaging. IEEE Transactions on Antennas and Propagation, 2008, 56, 1968-1975.	5.1	44
126	STUDY ON SCINTILLATION CONSIDERING INNER- AND OUTER-SCALES FOR LASER BEAM PROPAGATION ON THE SLANT PATH THROUGH THE ATMOSPHERIC TURBULENCE. Progress in Electromagnetics Research, 2008, 80, 277-293.	4.4	23



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127	Solution for the Fourth Moment Equation of Waves in Random Continuum Under Strong Fluctuations: General Theory and Plane Wave Solution. IEEE Transactions on Antennas and Propagation, 2007, 55, 1613-1621.	5.1	17
128	Second-order statistics of radio wave propagation through the structured ionosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2004, 66, 971-980.	1.6	7
129	Statistical temporal behaviour of pulse wave propagation through continuous random media. Waves in Random and Complex Media, 2003, 13, 59-73.	1.5	19
130	Method of Calculating the Radiance of Point-Source Target in Infrared Image. Journal of Infrared, Millimeter and Terahertz Waves, 2002, 23, 1347-1355.	0.6	7
131	Analytic Specific Attenuation Model for Rain for Use in Prediction Methods. Journal of Infrared, Millimeter and Terahertz Waves, 2001, 22, 113-120.	0.6	18
132	Millimeter-Wave Attenuation Due to Fog and Clouds. Journal of Infrared, Millimeter and Terahertz Waves, 2000, 21, 1607-1615.	0.6	34
133	Measurement and analysis of the scattering properties of cement surfaces of urban environment in the millimeter waveband. Transactions on Emerging Telecommunications Technologies, 0, , e4251.	3.9	1
134	Simulating the Scattering Echo and Inverse Synthetic Aperture Lidar Imaging of Rough Targets. Annalen Der Physik, 0, , 2100491.	2.4	3