

Thomas F Eibert

List of Publications by Year in descending order

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187
times ranked

971
citing authors

#	ARTICLE	IF	CITATIONS
1	Reliable Linearized Phase Retrieval for Near-Field Antenna Measurements With Truncated Measurement Surfaces. IEEE Transactions on Antennas and Propagation, 2022, 70, 7362-7367.	5.1	7
2	Preconditioned Inverse Source Solutions. , 2022, , .		2
3	Fully Coherent UAV-Based Near-Field Measurement and Transformation of the S67-15 m Ground Station Antenna at the German Space Operations Center in Weilheim. , 2022, , .		8
4	Spatial Distribution of Equivalent Echo Sources in Antenna Measurements with a Moving Antenna Under Test. , 2022, , .		1
5	Efficient Combination of Scalar-Potential Representations of Solenoidal Functions and Quasi-Helmholtz Projectors. , 2022, , .		3
6	A Huygens' Principle Based Ray Tracing Method for Diffraction Calculation. , 2022, , .		1
7	Transmission Line Based Frequency Modulated Continuous Wave Radar for Monitoring Airbag Deployment Processes. , 2022, , .		1
8	A Fully Polarimetric Multilevel Fast Spectral Domain Algorithm for 3-D Imaging With Irregular Sample Locations. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 4231-4242.	4.6	2
9	A Monte-Carlo Based Numerical Integration Method for Diffraction Computation in Ray Tracing. , 2022, , .		2
10	Solution of Inverse Source Problems with Distributed Spherical Harmonics Expansions. , 2022, , .		2
11	Multifrequency Phase Retrieval for Antenna Measurements. IEEE Transactions on Antennas and Propagation, 2021, 69, 488-501.	5.1	10
12	Compact Uniform Circular Quarter-Wavelength Monopole Antenna Arrays With Wideband Decoupling and Matching Networks. IEEE Transactions on Antennas and Propagation, 2021, 69, 769-783.	5.1	9
13	Improved Discretization of the Full First-Order Magnetic Field Integral Equation. , 2021, , .		2
14	Wireless Non-Destructive Moisture Content Characterization of Trees by Highly-Sensitive Compact Resonating Probes. IEEE Sensors Journal, 2021, 21, 6125-6132.	4.7	8
15	Setup and Error Analysis of a Fully Coherent UAV-based Near-Field Measurement System. , 2021, , .		10
16	A Dual-Polarized Tapered Slot Antenna for UAV-Based Collection of Locally Coherent Field Data. , 2021, , .		4
17	Real-Time Gesture Detection Based on Machine Learning Classification of Continuous Wave Radar Signals. IEEE Sensors Journal, 2021, 21, 8310-8322.	4.7	6
18	Inverse Surface-Source Solutions for Very Large Antennas – The One Thousand Wavelength Aperture. , 2021, , .		5

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19	Linear Phase Retrieval for Near-Field Measurements with Locally Known Phase Relations. , 2021, , .		2
20	A Coupled-Cavity Resonator Technique for Simultaneous Sensing of Dielectric Load and Position of Continuous Material Streams. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 2399-2407.	4.6	1
21	Towards Accurate Discretization of Arbitrary Right-Hand Side Excitations on Multiply-Connected Geometries. , 2021, , .		2
22	Accuracy and Conditioning of Surface-Source Based Near-Field to Far-Field Transformations. IEEE Transactions on Antennas and Propagation, 2021, 69, 4894-4908.	5.1	19
23	Propagating Plane-Wave Fast Multipole Translation Operators Revisitedâ€”Standard, Windowed, Gaussian Beam. IEEE Transactions on Antennas and Propagation, 2021, 69, 5851-5860.	5.1	7
24	Phase Retrieval for Partially Coherent Observations. IEEE Transactions on Signal Processing, 2021, 69, 1394-1406.	5.3	10
25	Impact of Rotor Blade Rotation of UAVs on Electromagnetic Field Measurements. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	4.7	6
26	Fast Chirp Frequency-Modulated Continuous-Wave Reflectometer for Monitoring Fast Varying Discontinuities on Transmission Lines. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	5
27	Impact of the Rotor Blade Rotation of a UAV on an Installed Field Probing Antenna. , 2021, , .		0
28	Investigations on Millimeter-Wave Massive MIMO Scenarios by Bidirectional Ray-Tracing Using Stationary-Phase Point Approximation. , 2021, , .		0
29	Numerically Error-Controlled Computation of Gaussian-Beam Propagating Plane-Wave Fast Multipole Translation Operators. , 2021, , .		0
30	Short-Time Measurement and Transformation of Continuously Modulated Time-Harmonic Fields. , 2021, , .		1
31	Influence of the GNSS Antenna Mounting Environment on Positioning Accuracy of UAVs. , 2021, , .		2
32	Errors and Prerequisites of the Short-Time Measurement and Transformation of Continuously Modulated Fields. , 2021, , .		1
33	Background and Clutter Removal Techniques for Ultra Short Range Radar. , 2021, , .		3
34	Suppressing Undesired Echoes by Sparsity Based Time Gating of Reconstructed Sources. , 2020, , .		1
35	Improved-Reliability Phase-Retrieval with Broadband Antenna Measurements. , 2020, , .		4
36	Versatile Low-Cost and Light-Weight RF Equipment for Field Measurements. , 2020, , .		2

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37	Asymptotic Expansion of the Reciprocity Integral in a Bidirectional Ray-Tracing Approach. , 2020, , .		0
38	Exploiting Spatial Derivative Information in Phaseless Near-Field Far-Field Transformations. , 2020, , .		5
39	Ultrasensitive moisture content characterization of wood samples by a cylindrical cavity resonator. Sensors and Actuators A: Physical, 2020, 315, 112298.	4.1	6
40	A Ray-Tracing Algorithm Based on the Computation of (Exact) Ray Paths With Bidirectional Ray-Tracing. IEEE Transactions on Antennas and Propagation, 2020, 68, 6277-6286.	5.1	24
41	A Coarse-fine Mesh Approach for Improved Solution of 3-D Inverse Problems in Unbounded Media. , 2020, , .		0
42	An Omnidirectional Radial Parallel-Plate Waveguide Antenna Using Wideband Mode Converters. IEEE Transactions on Antennas and Propagation, 2020, 68, 3348-3357.	5.1	7
43	Robustness of Sparse Reconstruction Methods in Spherical Antenna Near-Field Measurements. , 2020, , .		0
44	Investigation of Accelerated Monostatic Radar Cross Section Computations by Using Block and Projection Iterative Methods. , 2020, , .		2
45	Determination of Exact Ray Paths by Bidirectional Ray-Tracing. , 2020, , .		0
46	Numerical Synthesis of Translation Operators for the Multi-Level Fast Multipole Method. , 2020, , .		0
47	Vital signs monitoring using pseudo-random noise coded Doppler radar with Delta-Sigma modulation. IET Radar, Sonar and Navigation, 2020, 14, 1778-1787.	1.8	6
48	A Dual-Band Metasheet for Asymmetric Microwave Transmission With Polarization Conversion. IEEE Access, 2019, 7, 98045-98052.	4.2	27
49	Equivalent source and pattern reconstruction from oversampled measurements in highly reflective environments. IET Microwaves, Antennas and Propagation, 2019, 13, 2232-2241.	1.4	7
50	Near-Field Antenna Pattern Measurements in Highly Reflective Environments. IEEE Transactions on Antennas and Propagation, 2019, 67, 6159-6169.	5.1	7
51	On the Minimum Number of Samples for Sparse Recovery in Spherical Antenna Near-Field Measurements. IEEE Transactions on Antennas and Propagation, 2019, 67, 7597-7610.	5.1	27
52	3-D Monostatic RCS Determination From Multistatic Near-Field Measurements by Plane-Wave Field Synthesis. IEEE Transactions on Antennas and Propagation, 2019, 67, 3387-3396.	5.1	9
53	A Crane-Based Portable Antenna Measurement System—System Description and Validation. IEEE Transactions on Antennas and Propagation, 2019, 67, 3346-3357.	5.1	19
54	Reconstruction of Squared Field Magnitudes and Relative Phases From Magnitude-Only Near-Field Measurements. IEEE Transactions on Antennas and Propagation, 2019, 67, 3397-3409.	5.1	17

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55	Approximation of the Active Reflection Coefficient in Phased Arrays via the Concept of Reaction. , 2019, , .		1
56	Method-of-Moments Modeling of Conducting Objects within the Fast Irregular Antenna Field Transformation Algorithm. , 2019, , .		5
57	Measurement-Error Controlled Iterative Least-Squares Solutions of Inverse Field Transformation Problems. , 2019, , .		2
58	INVESTIGATION OF MASSIVE MIMO SCENARIOS INVOLVING ROOFTOP PROPAGATION BY BIDIRECTIONAL RAY-TRACING. Progress in Electromagnetics Research C, 2019, 91, 129-142.	0.9	2
59	Sparse Recovery with Predictable Accuracy in Noisy Spherical Antenna Near-Field Measurements. , 2019, , .		4
60	Investigations on Massive MIMO Performance with Multi-Antenna Users by Ray-Tracing. , 2019, , .		1
61	Approximate Inverse of the Rao-Wilton-Glisson Basis Functions Gram Matrix via Monopolar Representation. , 2019, , .		0
62	Efficient Inverse Sources Solutions Above Lossy Dielectric Halfspace. , 2019, , .		0
63	On the Condition Number of a Normal Matrix in Near-Field to Far-Field Transformations. IEEE Transactions on Antennas and Propagation, 2019, 67, 2028-2033.	5.1	10
64	Adaptive Cross Approximation Algorithm Accelerated Inverse Equivalent Current Method for Near-Field Antenna Measurement. IEEE Transactions on Antennas and Propagation, 2019, 67, 1874-1883.	5.1	1
65	A Mixed Circular/Linear Dual-Polarized Phased Array Concept for Automotive Radar Planar Antenna Designs and System Evaluation at 78 GHz. IEEE Transactions on Antennas and Propagation, 2019, 67, 1562-1572.	5.1	23
66	ON THE SOLUTION OF INVERSE EQUIVALENT SURFACE-SOURCE PROBLEMS. Progress in Electromagnetics Research, 2019, 165, 47-65.	4.4	30
67	Investigating Multiple Diffractions Near Optical Boundaries with Bidirectional Ray-Tracing and Antenna Reciprocity. , 2019, , .		2
68	A miniaturized frequency selective surface sub-reflector for X and Ku-bands. , 2018, , .		1
69	A Low-Reflectivity Vacuum Window for Rectangular Hollow Waveguides. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 128-135.	4.6	8
70	A Millimeter-Wave Self-Mixing Array With Large Gain and Wide Angular Receiving Range. IEEE Transactions on Antennas and Propagation, 2018, 66, 702-711.	5.1	14
71	Spherical Field Transformation Above Perfectly Electrically Conducting Ground Planes. IEEE Transactions on Antennas and Propagation, 2018, 66, 1465-1478.	5.1	26
72	Efficient EMC Parameter Analysis for the Verification of Complex Automotive Simulation Models by the Utilization of Design of Experiments. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 1965-1973.	2.2	6

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91	A non-reciprocal receive array with large beamwidth and gain. , 2018, , .		0
92	Investigation of distributed and collocated base stations in a large urban massive MIMO scenario. , 2017, , .		4
93	Complementary metaresonators based X-band hollow waveguide filter and crack detection sensor. , 2017, , .		3
94	A mm-Wave Patch Antenna with Broad Bandwidth and a Wide Angular Range. IEEE Transactions on Antennas and Propagation, 2017, 65, 4293-4298.	5.1	56
95	A Propagating Plane-Wave-Based Near-Field Transmission Equation for Antenna Gain Determination from Irregular Measurement Samples. IEEE Transactions on Antennas and Propagation, 2017, 65, 4230-4238.	5.1	25
96	Utilizing partial knowledge of phase differences in convex optimization for amplitude-only near-field far-field transformation. , 2017, , .		11
97	Inverse-source algorithm for antenna-field transformations using the weak form of the combined-source condition. , 2017, , .		8
98	A Planar Dual-Polarized Microstrip 1-D-Beamforming Antenna Array for the 24-GHz Band. IEEE Transactions on Antennas and Propagation, 2017, 65, 142-149.	5.1	36
99	On the Hierarchical Preconditioning of the PMCHWT Integral Equation on Simply and Multiply Connected Geometries. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 1044-1047.	4.0	6
100	A dual-linearly polarized receive antenna array for digital beamforming in automotive use. , 2017, , .		3
101	Phaseless Near-Field Far-Field Transformation Utilizing Combinations of Probe Signals. IEEE Transactions on Antennas and Propagation, 2017, 65, 5492-5502.	5.1	45
102	An accurate combined source integral equation for perfect electrically conducting bodies. , 2017, , .		4
103	Circularly polarized antenna array for automotive applications. , 2017, , .		3
104	A De-embedding application for EMC attenuation measurements of components. , 2017, , .		0
105	Performance analysis of 79 GHz polarimetric radar sensors for autonomous driving. , 2017, , .		8
106	Recursive Cram�r-Rao bounds of Doppler-based localization in short-range radar. , 2017, , .		0
107	Millimeter-wave Gaussian beam shaping and steering phased array antenna. , 2017, , .		0
108	A multi-resonant meta-absorber as an electromagnetic energy harvester. , 2017, , .		8

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109	Free-space antenna far-field extraction from near-field measurements above metallic ground. , 2017, , .		2
110	Reduction of EMC simulation efforts using design of experiments. , 2017, , .		4
111	An evaluation of the channel capacity of MIMO systems with practical compact antenna arrays. , 2016, , .		0
112	Irregular probe corrected Antenna Field Transformations utilizing Gaussian beam based fast multipole translation operators. , 2016, , .		2
113	Fast inverse equivalent current solutions with surface currents in complex space. , 2016, , .		4
114	Time gating based on sparse time domain signal reconstruction from limited frequency domain information. , 2016, , .		10
115	Spherical field transformation for hemispherical antenna measurements above perfectly conducting ground planes. , 2016, , .		10
116	Design of a millimeter-wave phased array antenna for Gaussian beam shaping and steering. , 2016, , .		5
117	A single layer dual linearly polarized microstrip patch antenna array for automotive applications in the 77 GHz band student submission. , 2016, , .		7
118	Antenna field transformation with directive sources. , 2016, , .		0
119	Fast Inverse Equivalent Source Solutions With Directive Sources. IEEE Transactions on Antennas and Propagation, 2016, 64, 4713-4724.	5.1	33
120	Empirical discretization errors in sparse representations for motion state estimation with multi-sensor radar systems. , 2016, , .		1
121	Microstrip fed broadband mm-wave patch antenna for mobile applications. , 2016, , .		5
122	Accuracy analysis of short-range Doppler shift target localization using a multi-sensor platform. , 2016, , .		1
123	A novel coordinate transformation based self-coupling computation approach for the method of moments. , 2016, , .		0
124	A planar dual-polarized microstrip 1D-beamforming antenna array for the 24GHz ISM-band. , 2016, , .		4
125	Fast irregular antenna field transformations above perfectly conducting ground planes. , 2016, , .		6
126	A volumetric near-field scanner for millimeter-wave antenna measurements. , 2016, , .		4

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127	Radial-Angular Singularity Cancellation Transformations Derived by Variable Separation. IEEE Transactions on Antennas and Propagation, 2016, 64, 189-200.	5.1	19
128	ELECTROMAGNETIC FIELD TRANSFORMATIONS FOR MEASUREMENTS AND SIMULATIONS (Invited Paper). Progress in Electromagnetics Research, 2015, 151, 127-150.	4.4	104
129	Contour-Integrated Dual-Band Compact Antenna Elements and Arrays for Low-Profile Mobile Terminals. IEEE Transactions on Antennas and Propagation, 2015, 63, 3305-3311.	5.1	8
130	A cylindrical cavity resonator for material measurements with coupled resonant modes for sensing and position offset compensation of the dielectric specimen. , 2015, , .		4
131	Self-mixing antenna arrays with wide receiving angular range. , 2015, , .		9
132	Electromagnetic Field Synthesis by Hierarchical Plane Wave-Based Field Transformation. IEEE Transactions on Antennas and Propagation, 2015, 63, 5561-5572.	5.1	15
133	A Fast 3-D Deterministic Ray Tracing Coverage Simulator Including Creeping Rays Based On Geometry Voxelization Technique. IEEE Transactions on Antennas and Propagation, 2015, 63, 210-220.	5.1	6
134	Estimation of Signal Correlation of Lossy Compact Monopole Arrays With Decoupling Networks. IEEE Transactions on Antennas and Propagation, 2015, 63, 357-363.	5.1	10
135	Solution of 3D inverse scattering problems by combined inverse equivalent current and finite element methods. Journal of Computational Physics, 2015, 288, 131-149.	3.8	13
136	Electric Field Homogeneity Optimization by Dielectric Inserts for Improved Material Sensing in a Cavity Resonator. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 2239-2246.	4.7	4
137	A Shooting and Bouncing Ray (SBR) Modeling Framework Involving Dielectrics and Perfect Conductors. IEEE Transactions on Antennas and Propagation, 2015, 63, 3599-3609.	5.1	47
138	Compact Two-Element Printed Monopole Array With Partially Extended Ground Plane. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 138-140.	4.0	16
139	Compressed sensing for near range MIMO radar in multipath environment. , 2014, , .		2
140	Comparison of Compact Monopole Antenna Arrays With Eigenmode Excitation and Multiport Conjugate Matching. IEEE Transactions on Antennas and Propagation, 2013, 61, 4054-4062.	5.1	33
141	A Multi-Probe Antenna Measurement Technique With Echo Suppression Capability. IEEE Transactions on Antennas and Propagation, 2013, 61, 5008-5016.	5.1	18
142	Efficient Near-Field Far-Field Transformation for Nonredundant Sampling Representation on Arbitrary Surfaces in Near-Field Antenna Measurements. IEEE Transactions on Antennas and Propagation, 2013, 61, 2025-2033.	5.1	38
143	Multi-Radiation Center Transmitter Models for Ray Tracing. IEEE Transactions on Antennas and Propagation, 2012, 60, 3382-3388.	5.1	4
144	Low-Frequency Surface Integral Equation Solution by Multilevel Green's Function Interpolation With Fast Fourier Transform Acceleration. IEEE Transactions on Antennas and Propagation, 2012, 60, 1440-1449.	5.1	12

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145	Regularized 1-D Dielectric Profile Inversion in a Uniform Metallic Waveguide by Measurement and Simulation. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 1437-1443.	4.6	17
146	INVERSE EQUIVALENT SURFACE CURRENT METHOD WITH HIERARCHICAL HIGHER ORDER BASIS FUNCTIONS, FULL PROBE CORRECTION AND MULTILEVEL FAST MULTIPOLE ACCELERATION. Progress in Electromagnetics Research, 2010, 106, 377-394.	4.4	43
147	Surface Integral Equation Solutions by Hierarchical Vector Basis Functions and Spherical Harmonics Based Multilevel Fast Multipole Method. IEEE Transactions on Antennas and Propagation, 2009, 57, 2084-2093.	5.1	42
148	Multilevel Fast Multipole Accelerated Inverse Equivalent Current Method Employing Rao's "Wilton" Glisson Discretization of Electric and Magnetic Surface Currents. IEEE Transactions on Antennas and Propagation, 2009, 57, 1178-1185.	5.1	112
149	Multilevel Plane Wave Based Near-Field Far-Field Transformation for Electrically Large Antennas in Free-Space or Above Material Halfspace. IEEE Transactions on Antennas and Propagation, 2009, 57, 1382-1390.	5.1	54
150	Fully Probe-Corrected Near-Field Far-Field Transformation Employing Plane Wave Expansion and Diagonal Translation Operators. IEEE Transactions on Antennas and Propagation, 2008, 56, 737-746.	5.1	92
151	Some scattering results computed by surface-integral-equation and hybrid finite-element - boundary-integral techniques, accelerated by the multilevel fast multipole method. IEEE Antennas and Propagation Magazine, 2007, 49, 61-69.	1.4	36
152	A Dipole Excited Ultrawideband Dielectric Rod Antenna With Reflector. IEEE Transactions on Antennas and Propagation, 2007, 55, 1948-1954.	5.1	23
153	Comparison of non-convex cost functionals for the consideration of phase differences in phaseless near-field far-field transformations of measured antenna fields. Advances in Radio Science, 0, 15, 11-19.	0.7	2
154	Signal degradation through sediments on safety-critical radar sensors. Advances in Radio Science, 0, 17, 91-100.	0.7	7
155	Near-field measurement of continuously modulated fields employing the time-harmonic near- to far-field transformation. Advances in Radio Science, 0, 17, 83-89.	0.7	4
156	Near-Field Antenna Measurements with Manual Collection of the Measurement Samples. Advances in Radio Science, 0, 18, 17-22.	0.7	4
157	Dynamic Eigenimage Based Background and Clutter Suppression for Ultra Short-Range Radar. Advances in Radio Science, 0, 19, 71-77.	0.7	1