

Waymond R Scott

List of Publications by Year in descending order

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71
papers

898
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840119

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525886

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71
all docs

71
docs citations

71
times ranked

548
citing authors

#	ARTICLE	IF	CITATIONS
1	A Compressive Sensing Data Acquisition and Imaging Method for Stepped Frequency GPRs. IEEE Transactions on Signal Processing, 2009, 57, 2640-2650.	3.2	269
2	Multistatic Ground-Penetrating Radar Experiments. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 2544-2553.	2.7	103
3	Analysis of the Equiangular Spiral Antenna on a Dielectric Substrate. IEEE Transactions on Antennas and Propagation, 2007, 55, 3163-3171.	3.1	55
4	Robust Estimation of the Discrete Spectrum of Relaxations for Electromagnetic Induction Responses. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 1169-1179.	2.7	43
5	Compressive Sensing for GPR Imaging. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	41
6	Broadband Array of Electromagnetic Induction Sensors for Detecting Buried Landmines. , 2008, , .		41
7	Broadband electromagnetic induction sensor for detecting buried landmines. , 2007, , .		24
8	Efficient Algorithm Design for GPR Imaging of Landmines. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 4010-4021.	2.7	22
9	Target Classification and Identification Using Sparse Model Representations of Frequency-Domain Electromagnetic Induction Sensor Data. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 2689-2706.	2.7	21
10	Error analysis for dielectric spectroscopy using shielded open-circuited coaxial lines of general length. IEEE Transactions on Instrumentation and Measurement, 1986, IM-35, 130-137.	2.4	19
11	Design and realization of a discretely loaded resistive vee dipole for ground-penetrating radars. Radio Science, 2004, 39, n/a-n/a.	0.8	17
12	On the Design of Sinuous Antennas for UWB Radar Applications. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 1347-1351.	2.4	16
13	Coil Optimization Method for Electromagnetic Induction Systems. IEEE Sensors Journal, 2013, 13, 4506-4512.	2.4	15
14	Modeling the measured em induction response of targets as a sum of dipole terms each with a discrete relaxation frequency. , 2010, , .		14
15	Software defined radio for stepped-frequency, ground-penetrating radar. , 2017, , .		12
16	Estimation of the Discrete Spectrum of Relaxations for Electromagnetic Induction Responses Using ℓ_p -Regularized Least Squares for $0 \leq p \leq 1$. IEEE Geoscience and Remote Sensing Letters, 2011, 8, 233-237.	1.4	10
17	3-D imaging for ground penetrating radar using compressive sensing with block-toeplitz structures. , 2012, , .		10
18	Computing simple models for scatterers in eddy current problems using a modal decomposition. Journal of Applied Geophysics, 2013, 95, 104-114.	0.9	9

#	ARTICLE	IF	CITATIONS
19	Adaptive Multimodality Sensing of Landmines. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 1756-1774.	2.7	8
20	Location and orientation estimation of buried targets using electromagnetic induction sensors. Proceedings of SPIE, 2012, , .	0.8	8
21	Efficient drive signals for broadband CW electromagnetic induction sensors. , 2013, , .		8
22	EBG Antenna for GPR Colocated With a Metal Detector for Landmine Detection. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 1329-1333.	1.4	7
23	Optimization and Analysis of Wire-Wound Coil Heads for EMI Systems. IEEE Sensors Journal, 2019, 19, 1672-1682.	2.4	7
24	Optimal Maneuvering of Seismic Sensors for Localization of Subsurface Targets. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 1247-1257.	2.7	6
25	Compensation of Dispersion in Sinuous Antennas for Polarimetric Ground Penetrating Radar Applications. Remote Sensing, 2019, 11, 1937.	1.8	6
26	Jointly sparse vector recovery via reweighted ℓ_1/ℓ_2 minimization. , 2012, , .		5
27	Simple wideband models for disks and wires in the eddy current approximation. Journal of Applied Geophysics, 2013, 92, 137-143.	0.9	5
28	EBG antenna for GPR co-located with a metal detector for landmine detection. , 2013, , .		5
29	Low-rank physical model recovery from low-rank signal approximation. , 2017, , .		5
30	Low-Rank Model for Wideband Electromagnetic Induction Sensors. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 2413-2417.	1.4	5
31	Performance Analysis of Parameter Estimation in Electromagnetic Induction Data. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 5054-5066.	2.7	5
32	Landmine detection using the discrete spectrum of relaxation frequencies. , 2011, , .		4
33	Wideband measurement of the magnetic susceptibility of soils and the magnetic polarizability of metallic objects. , 2012, , .		4
34	Tensor amplitude extraction in sensor array processing. , 2013, , .		4
35	A resistive-vee dipole based polarimetric antenna. , 2013, , .		4
36	Optimization of planar coils for electromagnetic induction systems. , 2014, , .		4

#	ARTICLE	IF	CITATIONS
37	Extracting target orientation for different electromagnetic induction sensing geometries. , 2014, , .		4
38	Sinusoidal Antenna Design for UWB Radar. , 2019, , .		4
39	Electromagnetic Induction Sensor with a Spinning Magnet Excitation. , 2019, , .		4
40	An Unbalanced Sinusoidal Antenna for Near-Surface Polarimetric Ground-Penetrating Radar. IEEE Open Journal of Antennas and Propagation, 2020, 1, 435-447.	2.5	4
41	Numerical modeling of a spiral-antenna GPR system. , 2009, , .		3
42	A simple method for computing discrete spectrum relaxations of body of revolution targets using eigenvalue decomposition. , 2012, , .		3
43	Computing the magnetic polarizability of thin conducting sheets using an eigenvalue decomposition. , 2014, , .		3
44	Formulation of a method for the optimization of coils for electromagnetic induction systems in the presence of magnetic soil. , 2015, , .		3
45	Adaptive Prefiltering for Nonnegative Discrete Spectrum of Relaxations. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1018-1022.	1.4	3
46	Improved method for the optimization of coils in the presence of magnetic soil. , 2016, , .		3
47	Analysis of double-D induction coil performance in magnetic soils using new coil metrics. , 2017, , .		3
48	Feature Detection in Highly Noisy Images using Random Sample Theory. , 2007, , .		2
49	Calibration technique for broadband electromagnetic induction sensors. , 2011, , .		2
50	Analysis of the natural modes of the 3-D eddy current problem based on the finite integration technique. , 2015, , .		2
51	Feedback for electromagnetic induction sensor arrays. , 2016, , .		2
52	Estimation and application of discrete spectrum of relaxations for electromagnetic induction responses. , 2009, , .		1
53	Application of ℓ_1 -regularized least squares for $0 < \alpha < 1$ in estimating discrete spectrum models from sparse frequency measurements. , 2010, , .		1
54	Estimation of the discrete spectrum of relaxation frequencies using multiple measurements. , 2012, , .		1

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55	Computation of modal decompositions for studying electromagnetic induction. , 2012, , .		1
56	Optimal coils with zero mutual inductance for electromagnetic induction systems. , 2013, , .		1
57	Magnetic feedback amplifier for electromagnetic induction sensors. , 2015, , .		1
58	Formulation for a practical implementation of electromagnetic induction coils optimized using stream functions. Proceedings of SPIE, 2016, , .	0.8	1
59	Metrics for the comparison of coils used in electromagnetic induction systems. Proceedings of SPIE, 2017, , .	0.8	1
60	The eigendecomposition of the eddy current problem in thin conducting shells. , 2017, , .		1
61	Performance Bounds for Target Parameter Estimation From Frequency-Domain Electromagnetic Induction Data. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-13.	2.7	1
62	Classification using low-rank features from an electromagnetic induction sensor. , 2019, , .		1
63	Differential Electromagnetic Induction Sensor using a Spinning Magnet Excitation. , 2020, , .		1
64	Design of the equiangular spiral antenna on a dielectric substrate. , 2007, , .		0
65	An application of reciprocity to the numerical modeling of a GPR system. , 2010, , .		0
66	Modal analysis of the eddy current problem using null-space-free Jacobi-Davidson. , 2016, , .		0
67	Motion Induced Error in Continuous-Wave Electromagnetic Induction Sensors. , 2018, , .		0
68	A Three-Dimensional Integral Method for Computing the Relaxation Frequencies of Eddy Currents in Conducting Media. , 2018, , .		0
69	Wideband Models for the Electromagnetic Induction Signatures of Thin Conducting Shells. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 7330-7338.	2.7	0
70	Performance Analysis for Estimating a Target's Relaxation Frequencies From Frequency-Domain Electromagnetic Induction Data. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	0
71	An Unbalanced Sinuous Antenna for Ultra-Wideband Polarimetric Ground-Penetrating Radar. , 2020, , .		0