

Martin O'Halloran

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3185373/publications.pdf>

Version: 2024-02-01

120
papers

2,019
citations

279701

23
h-index

315616

38
g-index

121
all docs

121
docs citations

121
times ranked

1338
citing authors

#	ARTICLE	IF	CITATIONS
1	Microwave Breast Imaging: Clinical Advances and Remaining Challenges. IEEE Transactions on Biomedical Engineering, 2018, 65, 2580-2590.	2.5	198
2	Open-Ended Coaxial Probe Technique for Dielectric Measurement of Biological Tissues: Challenges and Common Practices. Diagnostics, 2018, 8, 40.	1.3	181
3	Quasi-Multistatic MIST Beamforming for the Early Detection of Breast Cancer. IEEE Transactions on Biomedical Engineering, 2010, 57, 830-840.	2.5	72
4	Gamma Band Neural Stimulation in Humans and the Promise of a New Modality to Prevent and Treat Alzheimer's Disease. Journal of Alzheimer's Disease, 2018, 65, 363-392.	1.2	63
5	Evaluation of Image Reconstruction Algorithms for Confocal Microwave Imaging: Application to Patient Data. Sensors, 2018, 18, 1678.	2.1	62
6	DATA INDEPENDENT RADAR BEAMFORMING ALGORITHMS FOR BREAST CANCER DETECTION. Progress in Electromagnetics Research, 2010, 107, 331-348.	1.6	61
7	SUPPORT VECTOR MACHINES FOR THE CLASSIFICATION OF EARLY-STAGE BREAST CANCER BASED ON RADAR TARGET SIGNATURES. Progress in Electromagnetics Research B, 2010, 23, 311-327.	0.7	42
8	Investigation of the effect of dehydration on tissue dielectric properties in <i>ex vivo</i> measurements. Biomedical Physics and Engineering Express, 2017, 3, 045001.	0.6	42
9	Investigation of Histology Region in Dielectric Measurements of Heterogeneous Tissues. IEEE Transactions on Antennas and Propagation, 2017, 65, 5541-5552.	3.1	38
10	Dielectric properties of bones for the monitoring of osteoporosis. Medical and Biological Engineering and Computing, 2019, 57, 1-13.	1.6	38
11	Microwave Breast Imaging: experimental tumour phantoms for the evaluation of new breast cancer diagnosis systems. Biomedical Physics and Engineering Express, 2018, 4, 025036.	0.6	37
12	Optimised analytical models of the dielectric properties of biological tissue. Medical Engineering and Physics, 2017, 43, 103-111.	0.8	35
13	ARTIFACT REMOVAL ALGORITHMS FOR MICROWAVE IMAGING OF THE BREAST. Progress in Electromagnetics Research, 2013, 141, 185-200.	1.6	33
14	Lipid Lowering Therapy, Low-Density Lipoprotein Level and Risk of Intracerebral Hemorrhage – A Meta-Analysis. Journal of Stroke and Cerebrovascular Diseases, 2019, 28, 1703-1709.	0.7	31
15	INVESTIGATION OF CLASSIFIERS FOR EARLY-STAGE BREAST CANCER BASED ON RADAR TARGET SIGNATURES. Progress in Electromagnetics Research, 2010, 105, 295-311.	1.6	30
16	Sensitivity and Specificity Estimation Using Patient-Specific Microwave Imaging in Diverse Experimental Breast Phantoms. IEEE Transactions on Medical Imaging, 2019, 38, 303-311.	5.4	30
17	Minimum information for dielectric measurements of biological tissues (MINDER): A framework for repeatable and reusable data. International Journal of RF and Microwave Computer-Aided Engineering, 2018, 28, e21201.	0.8	29
18	FDTD MODELING OF THE BREAST: A REVIEW. Progress in Electromagnetics Research B, 2009, 18, 1-24.	0.7	28

#	ARTICLE	IF	CITATIONS
19	A review of the dielectric properties of the bone for low frequency medical technologies. Biomedical Physics and Engineering Express, 2019, 5, 022001.	0.6	27
20	Supervised Learning Classifiers for Electrical Impedance-based Bladder State Detection. Scientific Reports, 2018, 8, 5363.	1.6	26
21	SPIKING NEURAL NETWORKS FOR BREAST CANCER CLASSIFICATION IN A DIELECTRICALLY HETEROGENEOUS BREAST. Progress in Electromagnetics Research, 2011, 113, 413-428.	1.6	25
22	Effect of logarithmic and linear frequency scales on parametric modelling of tissue dielectric data. Biomedical Physics and Engineering Express, 2017, 3, 015020.	0.6	25
23	TRANSMITTER-GROUPING ROBUST CAPON BEAMFORMING FOR BREAST CANCER DETECTION. Progress in Electromagnetics Research, 2010, 108, 401-416.	1.6	24
24	Parameter Search Algorithms for Microwave Radar-Based Breast Imaging: Focal Quality Metrics as Fitness Functions. Sensors, 2017, 17, 2823.	2.1	24
25	Dielectric characterization of diseased human trabecular bones at microwave frequency. Medical Engineering and Physics, 2020, 78, 21-28.	0.8	23
26	Characterisation of Ex Vivo Liver Thermal Properties for Electromagnetic-Based Hyperthermic Therapies. Sensors, 2020, 20, 3004.	2.1	23
27	Classification of breast tumor models with a prototype microwave imaging system. Medical Physics, 2020, 47, 1860-1870.	1.6	23
28	EFFECTS OF FIBROGLANDULAR TISSUE DISTRIBUTION ON DATA-INDEPENDENT BEAMFORMING ALGORITHMS. Progress in Electromagnetics Research, 2009, 97, 141-158.	1.6	22
29	BREAST CANCER DETECTION BASED ON DIFFERENTIAL ULTRAWIDEBAND MICROWAVE RADAR. Progress in Electromagnetics Research M, 2011, 20, 231-242.	0.5	22
30	Multi-frequency symmetry difference electrical impedance tomography with machine learning for human stroke diagnosis. Physiological Measurement, 2020, 41, 075010.	1.2	22
31	Modeling of the dielectric properties of biological tissues within the histology region. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 3290-3301.	1.8	21
32	Diagnosing Breast Cancer with Microwave Technology: remaining challenges and potential solutions with machine learning. Diagnostics, 2018, 8, 36.	1.3	21
33	Investigation of histology radius for dielectric characterisation of heterogeneous materials. IEEE Transactions on Dielectrics and Electrical Insulation, 2018, 25, 1064-1079.	1.8	20
34	Brain haemorrhage detection using a SVM classifier with electrical impedance tomography measurement frames. PLoS ONE, 2018, 13, e0200469.	1.1	20
35	A PREPROCESSING FILTER FOR MULTISTATIC MICROWAVE BREAST IMAGING FOR ENHANCED TUMOUR DETECTION. Progress in Electromagnetics Research B, 2014, 57, 115-126.	0.7	18
36	Beamforming and holography image formation methods: an analytic study. Optics Express, 2016, 24, 9077.	1.7	18

#	ARTICLE	IF	CITATIONS
37	NUMERICAL MODELLING FOR ULTRA WIDEBAND RADAR BREAST CANCER DETECTION AND CLASSIFICATION. Progress in Electromagnetics Research B, 2011, 34, 145-171.	0.7	17
38	Microwave antennas for thermal ablation of benign adrenal adenomas. Biomedical Physics and Engineering Express, 2019, 5, 025044.	0.6	17
39	SPIKING NEURAL NETWORKS FOR BREAST CANCER CLASSIFICATION USING RADAR TARGET SIGNATURES. Progress in Electromagnetics Research C, 2010, 17, 79-94.	0.6	16
40	Effects of standard coagulant agents on the dielectric properties of fresh human blood. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 3283-3289.	1.8	16
41	ANATOMICALLY AND DIELECTRICALLY REALISTIC MICROWAVE HEAD PHANTOM WITH CIRCULATION AND RECONFIGURABLE LESIONS. Progress in Electromagnetics Research B, 2017, 78, 47-60.	0.7	16
42	Modelling the Sensing Radius of a Coaxial Probe for Dielectric Characterisation of Biological Tissues. IEEE Access, 2018, 6, 46516-46526.	2.6	16
43	Image-based classification of bladder state using electrical impedance tomography. Physiological Measurement, 2018, 39, 124001.	1.2	16
44	Exploiting Tissue Dielectric Properties to Shape Microwave Thermal Ablation Zones. Sensors, 2020, 20, 3960.	2.1	16
45	Remote FPGA Lab with Interactive Control and Visualisation Interface. , 2011, , .		14
46	Quantification of the Sensing Radius of a Coaxial Probe for Accurate Interpretation of Heterogeneous Tissue Dielectric Data. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2018, 2, 145-153.	2.3	14
47	Bi-Frequency Symmetry Difference EIT Feasibility and Limitations of Application to Stroke Diagnosis. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 2407-2419.	3.9	13
48	Focal quality metrics for the objective evaluation of confocal microwave images. International Journal of Microwave and Wireless Technologies, 2017, 9, 1365-1372.	1.5	12
49	Microwave Bone Imaging: A Preliminary Investigation on Numerical Bone Phantoms for Bone Health Monitoring. Sensors, 2020, 20, 6320.	2.1	12
50	Anthropomorphic Calcaneus Phantom for Microwave Bone Imaging Applications. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2021, 5, 206-213.	2.3	12
51	Weighted delay-and-sum beamformer for breast cancer detection using microwave imaging. Measurement: Journal of the International Measurement Confederation, 2021, 177, 109283.	2.5	12
52	Dielectric Characterization of <i>Ex Vivo</i> Ovine and Human Adrenal Glands for Microwave Thermal Ablation Applications. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2021, 5, 254-261.	2.3	12
53	A realistic pelvic phantom for electrical impedance measurement. Physiological Measurement, 2018, 39, 034001.	1.2	11
54	Using microwave thermal ablation to develop a subtotal, cortical-sparing approach to the management of primary aldosteronism. International Journal of Hyperthermia, 2019, 36, 904-913.	1.1	11

#	ARTICLE	IF	CITATIONS
55	Development of an Anthropomorphic Phantom of the Axillary Region for Microwave Imaging Assessment. <i>Sensors</i> , 2020, 20, 4968.	2.1	11
56	A feasibility study on microwave imaging of bone for osteoporosis monitoring. <i>Medical and Biological Engineering and Computing</i> , 2021, 59, 925-936.	1.6	11
57	Dielectric properties of fresh human blood. , 2017, , .		10
58	Numerical evaluation of microwave thermal ablation to treat small adrenocortical masses. <i>International Journal of RF and Microwave Computer-Aided Engineering</i> , 2018, 28, e21236.	0.8	10
59	Stable tissue-mimicking materials and an anatomically realistic, adjustable head phantom for electrical impedance tomography. <i>Biomedical Physics and Engineering Express</i> , 2018, 4, 015003.	0.6	10
60	Feasibility of water content-based dielectric characterisation of biological tissues using mixture models. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2019, 26, 187-193.	1.8	10
61	Dielectric Properties of Ovine Heart at Microwave Frequencies. <i>Diagnostics</i> , 2021, 11, 531.	1.3	10
62	SVM-based classification of breast tumour phantoms using a UWB radar prototype system. , 2014, , .		9
63	Estimating average dielectric properties for microwave breast imaging using focal quality metrics. , 2016, , .		9
64	A multistage selective weighting method for improved microwave breast tomography. <i>Computerized Medical Imaging and Graphics</i> , 2016, 54, 6-15.	3.5	9
65	Development of Clinically Informed 3-D Tumor Models for Microwave Imaging Applications. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2016, 15, 520-523.	2.4	9
66	An insight into bone dielectric properties variation: a foundation for electromagnetic medical devices. , 2018, , .		9
67	Investigation of Anemia and the Dielectric Properties of Human Blood at Microwave Frequencies. <i>IEEE Access</i> , 2018, 6, 56885-56892.	2.6	9
68	Comparing Radar-Based Breast Imaging Algorithm Performance with Realistic Patient-Specific Permittivity Estimation. <i>Journal of Imaging</i> , 2019, 5, 87.	1.7	9
69	Improved Confocal Microwave Imaging of the breast using path-dependent signal weighting. , 2011, , .		8
70	Predicting the Sensing Radius of a Coaxial Probe Based on the Probe Dimensions. <i>IEEE Transactions on Antennas and Propagation</i> , 2020, 68, 6704-6716.	3.1	8
71	CONTRAST ENHANCED BEAMFORMING FOR BREAST CANCER DETECTION. <i>Progress in Electromagnetics Research B</i> , 2011, 28, 219-234.	0.7	7
72	Technological requirements for microwave ablation of adrenal masses. , 2017, , .		7

#	ARTICLE	IF	CITATIONS
73	Bi-frequency symmetry difference electrical impedance tomographyâ€”a novel technique for perturbation detection in static scenes. <i>Physiological Measurement</i> , 2019, 40, 044005.	1.2	7
74	Detection of Vesicoureteral Reflux Using Electrical Impedance Tomography. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 2279-2286.	2.5	7
75	Robustness of Time-Multiplexed Hyperthermia to Temperature Dependent Thermal Tissue Properties. <i>IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology</i> , 2020, 4, 126-132.	2.3	7
76	Microwave calcaneus phantom for bone imaging applications. , 2020, , .		7
77	Relationship Between the Conductivity of Human Blood and Blood Counts. <i>IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology</i> , 2022, 6, 184-190.	2.3	7
78	A comparison of data-independent microwave beamforming algorithms for the early detection of breast cancer. , 2009, 2009, 2731-4.		6
79	Comparison of in-vivo and ex-vivo dielectric properties of biological tissues. , 2017, , .		6
80	An anatomically accurate dielectric profile of the porcine kidney. <i>Biomedical Physics and Engineering Express</i> , 2018, 4, 025042.	0.6	6
81	Experimental Validation of Microwave Imaging Prototype and DBIM-IMATCS Algorithm for Bone Health Monitoring. <i>IEEE Access</i> , 2022, 10, 42589-42600.	2.6	6
82	Antenna configurations for ultra wide band radar detection of breast cancer. <i>Proceedings of SPIE</i> , 2009, , .	0.8	5
83	Avoiding unnecessary breast biopsies: Clinically-informed 3D breast tumour models for microwave imaging applications. , 2014, , .		5
84	Significance of heterogeneities in accurate dielectric measurements of biological tissues. , 2017, , .		5
85	Symmetry difference electrical impedance tomographyâ€”a novel modality for anomaly detection. <i>Physiological Measurement</i> , 2018, 39, 044007.	1.2	5
86	Heparin as an anticoagulant for the dielectric measurement of blood. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2019, 26, 229-234.	1.8	5
87	Adaptive design methods in dialysis clinical trials: a systematic review protocol. <i>BMJ Open</i> , 2020, 10, e036755.	0.8	5
88	Development of breast and tumour models for simulation of novel multimodal PEM-UWB technique for detection and classification of breast tumours. , 2012, , .		4
89	Examination of the sensing radius of open-ended coaxial probes in dielectric measurements of biological tissues. , 2017, , .		4
90	Challenges of Post-measurement Histology for the Dielectric Characterisation of Heterogeneous Biological Tissues. <i>Sensors</i> , 2020, 20, 3290.	2.1	4

#	ARTICLE	IF	CITATIONS
91	Evaluation of the Feasibility of Three Custom-made Tetrapolar Probes for Electrical Characterization of Cardiac Tissue. , 2021, , .		4
92	Measurement of Electrical Conductivity of Human Blood at Frequencies Below 100 kHz with Four-electrode Probe Method. , 2021, , .		4
93	Barrier materials for prevention of surgical adhesions: systematic review. BJS Open, 2022, 6, .	0.7	4
94	Evaluation of Experimental Microwave Radar-Based Images: Evaluation Criteria. , 2018, , .		3
95	Assessing Patient-Specific Microwave Breast Imaging in Clinical Case Studies. Sensors, 2021, 21, 8048.	2.1	3
96	Lung Tumor mimicking models for usability validation of transbronchial Microwave Thermal Ablation procedures. , 2021, , .		3
97	Comparison of A Planar and Finite Difference Time Domain Technique to Simulate the Propagation of Electromagnetic Waves in Biological Tissue. , 2006, , .		2
98	EVOLVING SPIKING NEURAL NETWORK TOPOLOGIES FOR BREAST CANCER CLASSIFICATION IN A DIELECTRICALLY HETEROGENEOUS BREAST. Progress in Electromagnetics Research Letters, 2011, 25, 153-162.	0.4	2
99	Hybrid artifact removal for breast imaging applied to a time-domain microwave system. , 2016, , .		2
100	Effects of Interpatient Variance on Microwave Breast Images: Experimental Evaluation. , 2018, 2018, 5660-5663.		2
101	Challenges in the Dielectric Measurement of Heterogeneous Tissues: Impact of Uncertainty in Sensing Depth Calculation. , 2018, , .		2
102	Multiband ultra-thin flexible on-body transceivers for wearable health informatics. Australasian Physical and Engineering Sciences in Medicine, 2019, 42, 53-63.	1.4	2
103	Brain Haemorrhage Detection Through SVM Classification of Electrical Impedance Tomography Measurements. , 2019, , 211-244.		2
104	Compressive sampling for time critical microwave imaging applications. Healthcare Technology Letters, 2014, 1, 6-12.	1.9	1
105	Patient-Specific Debye Parameters for Human Blood. , 2019, 2019, 238-242.		1
106	Determining the Concentration of Red Blood Cells using Dielectric Properties. , 2020, , .		1
107	Fast Measurements of Dielectric Properties with Small Size Microwave Transceiver. , 2020, , .		1
108	Impact of rotational artefact removal on microwave breast images. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
109	Changes in the Dielectric Properties of ex-vivo Ovine Kidney Before and After Microwave Thermal Ablation. , 2020, , .		1
110	Microwave bone imaging: experimental evaluation of calcaneus bone phantom and imaging prototype. , 2020, , .		1
111	System for delivering microwave ablation to subcutaneous tumors in small-animals under high-field MRI thermometry guidance. International Journal of Hyperthermia, 2022, 39, 584-594.	1.1	1
112	The Effect of Contact Pressure on Ex-vivo Measurements of the Conductivity of Liver. , 2022, , .		1
113	Ablation Treatment Planning for Patients with Primary Aldosteronism. , 2022, , .		1
114	Personal Interactive Bipedal Symmetry Re-education System to Aid the Recovery of Stroke Victims. , 2008, , .		0
115	Sensing Radius of an Open-Ended Coaxial Probe for Dielectric Measurement of Tissues: Calculation with Relative Permittivity versus Conductivity. , 2019, , .		0
116	Detailed Dielectric Characterisation of the Heart and Great Vessels. , 2020, , .		0
117	MO840ADAPTIVE DESIGN METHODS IN DIALYSIS CLINICAL TRIALS – A SYSTEMATIC REVIEW. Nephrology Dialysis Transplantation, 2021, 36, .	0.4	0
118	Dielectric Properties Model of the Left Atrium and Left Atrial Appendage for Applications in Cardiac Ablation. , 2021, , .		0
119	Coverage Estimation for Microwave Imaging using Full Multistatic Radar Imaging Algorithms with Restricted Opening. , 2020, , .		0
120	Microwave Tomographic Imaging of Experimental Bone Phantoms for Bone Imaging Application. , 2021, , .		0