

# Ronald T Wakai

## List of Publications by Year in descending order

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71  
papers

2,398  
citations

185998

28  
h-index

214527

47  
g-index

72  
all docs

72  
docs citations

72  
times ranked

1686  
citing authors

#	ARTICLE	IF	CITATIONS
1	A compact, high performance atomic magnetometer for biomedical applications. <i>Physics in Medicine and Biology</i> , 2013, 58, 8153-8161.	1.6	223
2	Fetal cardiac arrhythmia detection and in utero therapy. <i>Nature Reviews Cardiology</i> , 2010, 7, 277-290.	6.1	106
3	Optical magnetometer array for fetal magnetocardiography. <i>Optics Letters</i> , 2012, 37, 2247.	1.7	97
4	In Utero Diagnosis of Long QT Syndrome by Magnetocardiography. <i>Circulation</i> , 2013, 128, 2183-2191.	1.6	92
5	Theta Oscillations and Human Navigation: A Magnetoencephalography Study. <i>Journal of Cognitive Neuroscience</i> , 2002, 14, 70-78.	1.1	90
6	Prenatal diagnosis and In Utero treatment of Torsades de Pointes associated with congenital long QT syndrome. <i>American Journal of Cardiology</i> , 2003, 91, 1395-1398.	0.7	89
7	Electrophysiological Characteristics of Fetal Atrioventricular Block. <i>Journal of the American College of Cardiology</i> , 2008, 51, 77-84.	1.2	88
8	Parametric modulation of an atomic magnetometer. <i>Applied Physics Letters</i> , 2006, 89, 134105.	1.5	87
9	Cortical patch basis model for spatially extended neural activity. <i>IEEE Transactions on Biomedical Engineering</i> , 2006, 53, 1740-1754.	2.5	77
10	Diagnosis and Treatment of Fetal Arrhythmia. <i>American Journal of Perinatology</i> , 2014, 31, 617-628.	0.6	75
11	Low-Cost Fetal Magnetocardiography: A Comparison of Superconducting Quantum Interference Device and Optically Pumped Magnetometers. <i>Journal of the American Heart Association</i> , 2019, 8, e013436.	1.6	69
12	Fetal auditory evoked responses detected by magnetoencephalography. <i>American Journal of Obstetrics and Gynecology</i> , 1996, 174, 1484-1486.	0.7	66
13	Magnetocardiography for fetal arrhythmias. <i>Heart Rhythm</i> , 2008, 5, 1073-1076.	0.3	62
14	Noninvasive in utero assessment of PR and QRS intervals from the fetal magnetocardiogram. <i>Early Human Development</i> , 1999, 54, 235-243.	0.8	61
15	Assessment of fetal neurodevelopment via fetal magnetocardiography. <i>Experimental Neurology</i> , 2004, 190, 65-71.	2.0	57
16	Fetal Cardiac Repolarization Abnormalities. <i>American Journal of Cardiology</i> , 2006, 98, 491-496.	0.7	56
17	Spatiotemporal properties of the fetal magnetocardiogram. <i>American Journal of Obstetrics and Gynecology</i> , 1994, 170, 770-776.	0.7	54
18	Developmentally regulated SCN5A splice variant potentiates dysfunction of a novel mutation associated with severe fetal arrhythmia. <i>Heart Rhythm</i> , 2012, 9, 590-597.	0.3	52

#	ARTICLE	IF	CITATIONS
19	Conduction System Disease in Fetuses Evaluated for Irregular Cardiac Rhythm. <i>Fetal Diagnosis and Therapy</i> , 2006, 21, 307-313.	0.6	51
20	Atrial and Ventricular Rate Response and Patterns of Heart Rate Acceleration during Maternal Terbutaline Treatment of Fetal Complete Heart Block. <i>American Journal of Cardiology</i> , 2007, 100, 661-665.	0.7	47
21	Simultaneity of foetal heart rate acceleration and foetal trunk movement determined by foetal magnetocardiogram actocardiography. <i>Physics in Medicine and Biology</i> , 2002, 47, 839-846.	1.6	44
22	Congenital junctional ectopic tachycardia and congenital complete atrioventricular block: A shared etiology?. <i>Heart Rhythm</i> , 2005, 2, 313-315.	0.3	42
23	An expanded phenotype of maternal SSA/SSB antibody-associated fetal cardiac disease. <i>Journal of Maternal-Fetal and Neonatal Medicine</i> , 2009, 22, 233-238.	0.7	42
24	Assessment of Fetal Rhythm in Complete Congenital Heart Block by Magnetocardiography. <i>PACE - Pacing and Clinical Electrophysiology</i> , 2000, 23, 1047-1050.	0.5	39
25	Spectral analysis of antepartum fetal heart rate variability from fetal magnetocardiogram recordings. <i>Early Human Development</i> , 1993, 35, 15-24.	0.8	38
26	MEG and EEG Source Localization in Beamspace. <i>IEEE Transactions on Biomedical Engineering</i> , 2006, 53, 430-441.	2.5	36
27	Whole head mapping of magnetic fields following painful electric finger shock. <i>Cognitive Brain Research</i> , 1995, 2, 165-172.	3.3	35
28	Atrial and ventricular fetal heart rate patterns in isolated congenital complete heart block detected by magnetocardiography. <i>American Journal of Obstetrics and Gynecology</i> , 1998, 179, 258-260.	0.7	33
29	Fetal arrhythmias associated with cardiac rhabdomyomas. <i>Heart Rhythm</i> , 2014, 11, 677-683.	0.3	30
30	Giant Fetal Magnetocardiogram P Waves in Congenital Atrioventricular Block. <i>Circulation</i> , 2004, 110, 2097-2101.	1.6	28
31	Magnetophysiologic and echocardiographic comparison of blocked atrial bigeminy and 2:1 atrioventricular block in the fetus. <i>Heart Rhythm</i> , 2013, 10, 1192-1198.	0.3	28
32	Complex and Novel Arrhythmias Precede Stillbirth in Fetuses With De Novo Long QT Syndrome. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2020, 13, e008082.	2.1	28
33	Fetal Atrial Flutter: Electrophysiology and Associations With Rhythms Involving an Accessory Pathway. <i>Journal of the American Heart Association</i> , 2016, 5, .	1.6	25
34	The natural history of fetal long QT syndrome. <i>Journal of Electrocardiology</i> , 2016, 49, 807-813.	0.4	24
35	Genotype Predicts Outcomes in Fetuses and Neonates With Severe Congenital Long QT Syndrome. <i>JACC: Clinical Electrophysiology</i> , 2020, 6, 1561-1570.	1.3	24
36	Assessment of Left Ventricular Pre-Ejection Period in the Fetus Using Simultaneous Magnetocardiography and Echocardiography. <i>Fetal Diagnosis and Therapy</i> , 2010, 28, 167-174.	0.6	21

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37	Maximum-Likelihood Estimation of Low-Rank Signals for Multiepoch MEG/EEG Analysis. IEEE Transactions on Biomedical Engineering, 2004, 51, 1981-1993.	2.5	20
38	Fetal magnetocardiogram waveform characteristics. Physiological Measurement, 2019, 40, 035002.	1.2	19
39	Adaptive, autoregressive spectral estimation for analysis of electrical signals of gastric origin. Physiological Measurement, 2003, 24, 91-106.	1.2	17
40	Detection of Fetal Arrhythmia by Using Optically Pumped Magnetometers. JACC: Clinical Electrophysiology, 2018, 4, 284-287.	1.3	17
41	Magnetocardiography in the evaluation of fetuses at risk for sudden cardiac death before birth. Journal of Electrocardiology, 2008, 41, 116.e1-116.e6.	0.4	16
42	Matched-filter template generation via spatial filtering: application to fetal biomagnetic recordings. IEEE Transactions on Biomedical Engineering, 2002, 49, 1214-1217.	2.5	15
43	Simultaneous Fetal Magnetocardiography and Ultrasound/Doppler Imaging. IEEE Transactions on Biomedical Engineering, 2007, 54, 1167-1171.	2.5	14
44	Indices and Detectors for Fetal MCG Actography. IEEE Transactions on Biomedical Engineering, 2011, 58, 1874-1880.	2.5	14
45	Electrophysiologic features of fetal ventricular aneurysms and diverticula. Prenatal Diagnosis, 2015, 35, 129-136.	1.1	14
46	Fetal source extraction from magnetocardiographic recordings by dependent component analysis. Physics in Medicine and Biology, 2005, 50, 4457-4464.	1.6	12
47	Linear and nonlinear measures of fetal heart rate patterns evaluated on very short fetal magnetocardiograms. Physiological Measurement, 2012, 33, 1563-1583.	1.2	12
48	Statistical performance analysis of signal variance-based dipole models for MEG/EEG source localization and detection. IEEE Transactions on Biomedical Engineering, 2003, 50, 137-149.	2.5	11
49	Linear minimum mean-square error filtering for evoked responses: application to fetal MEG. IEEE Transactions on Biomedical Engineering, 2006, 53, 959-963.	2.5	10
50	Spatiotemporal visualization of neuromagnetic data. Electroencephalography and Clinical Neurophysiology, 1993, 86, 51-57.	0.3	9
51	Maternal MCG Interference Cancellation Using Splined Independent Component Subtraction. IEEE Transactions on Biomedical Engineering, 2011, 58, 2835-2843.	2.5	8
52	Complex Fetal Care: Importance of Fetal Arrhythmias to the Neonatologist and Pediatrician. NeoReviews, 2016, 17, e568-e578.	0.4	8
53	Detection of T-Wave Alternans in Fetal Magnetocardiography Using the Generalized Likelihood Ratio Test. IEEE Transactions on Biomedical Engineering, 2013, 60, 2393-2400.	2.5	7
54	Noninvasive Fetal Electrocardiography in the Diagnosis of Long QT Syndrome: A Case Series. Fetal Diagnosis and Therapy, 2020, 47, 711-716.	0.6	7

#	ARTICLE	IF	CITATIONS
55	A Spatiotemporal Framework for MEG/EEG Evoked Response Amplitude and Latency Variability Estimation. IEEE Transactions on Biomedical Engineering, 2010, 57, 616-625.	2.5	6
56	Prenatal diagnosis and management of junctional ectopic tachycardia. HeartRhythm Case Reports, 2017, 3, 503-508.	0.2	6
57	Magnetocardiography-Guided Management of an Unusual Case of Isoimmune Complete Atrioventricular Block Complicated by Ventricular Tachycardia. Fetal Diagnosis and Therapy, 2008, 24, 282-285.	0.6	5
58	The missense variant p.(Gly482Arg) in HCN4 is responsible for fetal tachy-bradycardia syndrome. HeartRhythm Case Reports, 2020, 6, 352-356.	0.2	5
59	Independent component analysis of normal and abnormal rhythm in twin pregnancies. Physiological Measurement, 2011, 32, 51-64.	1.2	4
60	Optical Sensor Position Indicator for Neonatal MEG. IEEE Transactions on Biomedical Engineering, 2012, 59, 255-262.	2.5	4
61	The atomic magnetometer: A new era in biomagnetism. , 2014, , .		4
62	Segmented independent component analysis for improved separation of fetal cardiac signals from nonstationary fetal magnetocardiograms. Biomedizinische Technik, 2015, 60, 235-44.	0.9	3
63	Repolarization predictors of fetal long QT syndrome. Heart Rhythm O2, 2020, 1, 200-205.	0.6	3
64	Fetal Magnetocardiography Alters Diagnosis and Management in Fetal Congenital Heart Disease and Cardiomyopathy. JACC: Clinical Electrophysiology, 2022, 8, 1159-1159.	1.3	3
65	An expectation-maximization algorithm for space-time sparsity regularization of the MEG inverse problem. International Congress Series, 2007, 1300, 113-116.	0.2	2
66	Magnetocardiography in the assessment of fetal arrhythmias. Expert Review of Obstetrics and Gynecology, 2009, 4, 45-52.	0.4	2
67	Dynamics of the use of magnetocardiography in the study of the cardiac conduction system of the chick embryo. Birth Defects Research, 2020, 112, 1825-1833.	0.8	2
68	Fetal QT Interval Estimation Using Sequential Hypothesis Testing. IEEE Transactions on Biomedical Engineering, 2017, 64, 2704-2710.	2.5	1
69	Current Status and Future Prospects of Perinatal MEG. , 2019, , 677-680.		1
70	Visualization of dipole solutions to the neuromagnetic inverse problem. International Journal of Bio-medical Computing, 1995, 39, 257-262.	0.5	0
71	Combined Fetal Ultrasonography and Magnetocardiography. , 2005, 2005, 5585-6.		0