Christopher M Collins

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4755091/publications.pdf

Version: 2024-02-01

44 papers	3,296 citations	236612 25 h-index	276539 41 g-index
44 all docs	44 docs citations	44 times ranked	2029 citing authors

#	Article	IF	Citations
1	B1 destructive interferences and spatial phase patterns at 7 T with a head transceiver array coil. Magnetic Resonance in Medicine, 2005, 54, 1503-1518.	1.9	416
2	Spatial variation in cartilage T2 of the knee. Journal of Magnetic Resonance Imaging, 2001, 14, 50-55.	1.9	274
3	SAR and B1 field distributions in a heterogeneous human head model within a birdcage coil. Magnetic Resonance in Medicine, 1998, 40, 847-856.	1.9	255
4	Temperature and SAR calculations for a human head within volume and surface coils at 64 and 300 MHz. Journal of Magnetic Resonance Imaging, 2004, 19, 650-656.	1.9	248
5	Signal-to-noise ratio and absorbed power as functions of main magnetic field strength, and definition of ?90ï¿½? RF pulse for the head in the birdcage coil. Magnetic Resonance in Medicine, 2001, 45, 684-691.	1.9	242
6	Analysis of wave behavior in lossy dielectric samples at high field. Magnetic Resonance in Medicine, 2002, 47, 982-989.	1.9	225
7	Central brightening due to constructive interference with, without, and despite dielectric resonance. Journal of Magnetic Resonance Imaging, 2005, 21, 192-196.	1.9	206
8	Exploring the limits of RF shimming for high-field MRI of the human head. Magnetic Resonance in Medicine, 2006, 56, 918-922.	1.9	197
9	Calculations ofB1 distribution, SNR, and SAR for a surface coil adjacent to an anatomically-accurate human body model. Magnetic Resonance in Medicine, 2001, 45, 692-699.	1.9	155
10	SAR and temperature: Simulations and comparison to regulatory limits for MRI. Journal of Magnetic Resonance Imaging, 2007, 26, 437-441.	1.9	129
11	Radio frequency magnetic field mapping of a 3 Tesla birdcage coil: Experimental and theoretical dependence on sample properties. Magnetic Resonance in Medicine, 2001, 46, 379-385.	1.9	127
12	Combination of optimized transmit arrays and some receive array reconstruction methods can yield homogeneous images at very high frequencies. Magnetic Resonance in Medicine, 2005, 54, 1327-1332.	1.9	109
13	Polarization of the RF field in a human head at high field: A study with a quadrature surface coil at 7.0 T. Magnetic Resonance in Medicine, 2002, 48, 362-369.	1.9	76
14	Dependence of and field patterns of surface coils on the electrical properties of the sample and the <scp>MR</scp> operating frequency. Concepts in Magnetic Resonance Part B, 2016, 46, 25-40.	0.3	66
15	Parallel transmit and receive technology in highâ€field magnetic resonance neuroimaging. International Journal of Imaging Systems and Technology, 2010, 20, 2-13.	2.7	47
16	Radiofrequency field enhancement with high dielectric constant (HDC) pads in a receive array coil at 3.0T. Journal of Magnetic Resonance Imaging, 2013, 38, 435-440.	1.9	44
17	Array-optimized composite pulse for excellent whole-brain homogeneity in high-field MRI. Magnetic Resonance in Medicine, 2007, 57, 470-474.	1.9	41
18	Consideration of physiological response in numerical models of temperature during MRI of the human head. Journal of Magnetic Resonance Imaging, 2008, 28, 1303-1308.	1.9	41

#	Article	IF	Citations
19	A Method for Accurate Calculation ofB1Fields in Three Dimensions. Effects of Shield Geometry on Field Strength and Homogeneity in the Birdcage Coil. Journal of Magnetic Resonance, 1997, 125, 233-241.	1.2	40
20	<scp>7T MR</scp> Safety. Journal of Magnetic Resonance Imaging, 2021, 53, 333-346.	1.9	32
21	A method to create an optimum current distribution and homogeneous B1 field for elliptical birdcage coils. Magnetic Resonance in Medicine, 1997, 37, 600-608.	1.9	30
22	Single acquisition electrical property mapping based on relative coil sensitivities: A proofâ€ofâ€concept demonstration. Magnetic Resonance in Medicine, 2015, 74, 185-195.	1.9	29
23	Improved detection of fMRI activation in the cerebellum at 7T with dielectric pads extending the imaging region of a commercial head coil. Journal of Magnetic Resonance Imaging, 2018, 48, 431-440.	1.9	29
24	A Birdcage Coil Tuned by RF Shielding for Application at 9.4 T. Journal of Magnetic Resonance, 1998, 131, 32-38.	1.2	28
25	Transverse slot antennas for high field MRI. Magnetic Resonance in Medicine, 2018, 80, 1233-1242.	1.9	27
26	Effects of anatomical differences on electromagnetic fields, <scp>SAR</scp>, and temperature change. Concepts in Magnetic Resonance Part B, 2016, 46, 8-18.	0.3	26
27	Consideration of magnetically-induced and conservative electric fields within a loaded gradient coil. Magnetic Resonance in Medicine, 2006, 55, 1424-1432.	1.9	22
28	Improved wholeâ€brain SNR with an integrated highâ€permittivity material in a head array at 7T. Magnetic Resonance in Medicine, 2021, 86, 1167-1174.	1.9	19
29	Faraday shields within a solenoidal coil to reduce sample heating: Numerical comparison of designs and experimental verification. Journal of Magnetic Resonance, 2010, 202, 72-77.	1.2	14
30	A method to separate conservative and magnetically-induced electric fields in calculations for MRI and MRS in electrically-small samples. Journal of Magnetic Resonance, 2009, 199, 233-237.	1.2	13
31	Predicting long-term temperature increase for time-dependent SAR levels with a single short-term temperature response. Magnetic Resonance in Medicine, 2016, 75, 2195-2203.	1.9	11
32	Approaching ultimate intrinsic specific absorption rate in radiofrequency shimming using highâ€permittivity materials at 7 Tesla. Magnetic Resonance in Medicine, 2018, 80, 391-399.	1.9	11
33	Manipulating transmit and receive sensitivities of radiofrequency surface coils using shielded and unshielded high-permittivity materials. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2018, 31, 355-366.	1.1	11
34	29-Channel receive-only dense dipole head array for 7T MRI. , 2017, , .		9
35	A method to assess the loss of a dipole antenna for ultraâ€highâ€field MRI. Magnetic Resonance in Medicine, 2018, 79, 1773-1780.	1.9	9
36	Parallel transmission RF pulse design with strict temperature constraints. NMR in Biomedicine, 2017, 30, e3694.	1.6	7

#	Article	IF	Citations
37	Disentangling the effects of high permittivity materials on signal optimization and sample noise reduction via ideal current patterns. Magnetic Resonance in Medicine, 2019, 81, 2746-2758.	1.9	7
38	Temperatureâ€based MRI safety simulations with a limited number of tissues. Magnetic Resonance in Medicine, 2021, 86, 543-550.	1.9	5
39	High-permittivity pads to enhance SNR and transmit efficiency in MRI of the heart at 7T: a simulation study. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2022, 35, 903-909.	1.1	5
40	Analysis of Conservative and Magnetically Induced Electric Fields in a Low-Frequency Birdcage Coil. Journal of Electromagnetic Analysis and Applications, 2013, 05, 271-280.	0.1	4
41	Semisupervised mixture modeling with fine-grained component-conditional class labeling and transductive inference. , 2009, , .		3
42	Optimization of the order and spacing of sequences in an MRI exam to reduce the maximum temperature and thermal dose. Magnetic Resonance in Medicine, 2019, 81, 2161-2166.	1.9	3
43	Slice-Selective Transmit Array Pulses for Improvement in Excitation Uniformity and Reduction of SAR. Journal of Electromagnetic Analysis and Applications, 2013, 05, 205-212.	0.1	3
44	Modeling of Static, Switched, and RF Fields in the Body for MRI. , 2006, , .		1