## Ludovic de Rochefort

## List of Publications by Citations

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#	Paper	IF	Citations
38	Quantitative susceptibility map reconstruction from MR phase data using bayesian regularization: validation and application to brain imaging. <i>Magnetic Resonance in Medicine</i> , <b>2010</b> , 63, 194-206	4.4	457
37	Calculation of susceptibility through multiple orientation sampling (COSMOS): a method for conditioning the inverse problem from measured magnetic field map to susceptibility source image in MRI. <i>Magnetic Resonance in Medicine</i> , <b>2009</b> , 61, 196-204	4.4	312
36	Morphology enabled dipole inversion for quantitative susceptibility mapping using structural consistency between the magnitude image and the susceptibility map. <i>NeuroImage</i> , <b>2012</b> , 59, 2560-8	7.9	303
35	A novel background field removal method for MRI using projection onto dipole fields (PDF). <i>NMR in Biomedicine</i> , <b>2011</b> , 24, 1129-36	4.4	256
34	Morphology enabled dipole inversion (MEDI) from a single-angle acquisition: comparison with COSMOS in human brain imaging. <i>Magnetic Resonance in Medicine</i> , <b>2011</b> , 66, 777-83	4.4	236
33	Quantitative MR susceptibility mapping using piece-wise constant regularized inversion of the magnetic field. <i>Magnetic Resonance in Medicine</i> , <b>2008</b> , 60, 1003-9	4.4	207
32	Nonlinear regularization for per voxel estimation of magnetic susceptibility distributions from MRI field maps. <i>IEEE Transactions on Medical Imaging</i> , <b>2010</b> , 29, 273-81	11.7	159
31	In vitro validation of computational fluid dynamic simulation in human proximal airways with hyperpolarized 3He magnetic resonance phase-contrast velocimetry. <i>Journal of Applied Physiology</i> , <b>2007</b> , 102, 2012-23	3.7	75
30	An illustrated comparison of processing methods for phase MRI and QSM: removal of background field contributions from sources outside the region of interest. <i>NMR in Biomedicine</i> , <b>2017</b> , 30, e3604	4.4	69
29	In vivo quantification of contrast agent concentration using the induced magnetic field for time-resolved arterial input function measurement with MRI. <i>Medical Physics</i> , <b>2008</b> , 35, 5328-39	4.4	61
28	Unambiguous identification of superparamagnetic iron oxide particles through quantitative susceptibility mapping of the nonlinear response to magnetic fields. <i>Magnetic Resonance Imaging</i> , <b>2010</b> , 28, 1383-9	3.3	49
27	Effective motion-sensitizing magnetization preparation for black blood magnetic resonance imaging of the heart. <i>Journal of Magnetic Resonance Imaging</i> , <b>2008</b> , 28, 1092-100	5.6	41
26	Quantitative Susceptibility Mapping (QSM) Algorithms: Mathematical Rationale and Computational Implementations. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2017</b> , 64, 2531-2545	5	34
25	Phase-contrast velocimetry with hyperpolarized 3He for in vitro and in vivo characterization of airflow. <i>Magnetic Resonance in Medicine</i> , <b>2006</b> , 55, 1318-25	4.4	27
24	Magnetic susceptibility matching at the air-tissue interface in rat lung by using a superparamagnetic intravascular contrast agent: influence on transverse relaxation time of hyperpolarized helium-3. <i>Magnetic Resonance in Medicine</i> , <b>2005</b> , 54, 28-33	4.4	23
23	Velocity-selective RF pulses in MRI. <i>Magnetic Resonance in Medicine</i> , <b>2006</b> , 55, 171-6	4.4	19
22	2D harmonic filtering of MR phase images in multicenter clinical setting: toward a magnetic signature of cerebral microbleeds. <i>Neurolmage</i> , <b>2015</b> , 104, 287-300	7.9	14

21	Clinical Integration of Automated Processing for Brain Quantitative Susceptibility Mapping: Multi-Site Reproducibility and Single-Site Robustness. <i>Journal of Neuroimaging</i> , <b>2019</b> , 29, 689-698	2.8	13
20	Aerosol deposition in the lungs of spontaneously breathing rats using Gd-DOTA-based contrast agents and ultra-short echo time MRI at 1.5 Tesla. <i>Magnetic Resonance in Medicine</i> , <b>2016</b> , 75, 594-605	4.4	13
19	Sources of systematic error in proton density fat fraction (PDFF) quantification in the liver evaluated from magnitude images with different numbers of echoes. <i>NMR in Biomedicine</i> , <b>2018</b> , 31, e38	34 <sup>134</sup>	13
18	Comparison of fast field-cycling magnetic resonance imaging methods and future perspectives. <i>Molecular Physics</i> , <b>2019</b> , 117, 832-848	1.7	10
17	Simultaneous pressure-volume measurements using optical sensors and MRI for left ventricle function assessment during animal experiment. <i>Medical Engineering and Physics</i> , <b>2015</b> , 37, 100-8	2.4	9
16	European Ultrahigh-Field Imaging Network for Neurodegenerative Diseases (EUFIND). <i>Alzheimer</i> and Dementia: Diagnosis, Assessment and Disease Monitoring, <b>2019</b> , 11, 538-549	5.2	9
15	A new paradigm for lung-conservative total liquid ventilation. <i>EBioMedicine</i> , <b>2020</b> , 52, 102365	8.8	9
14	Estimating absolute aortic pressure using MRI and a one-dimensional model. <i>Journal of Biomechanics</i> , <b>2014</b> , 47, 3390-9	2.9	7
13	Improved cerebral microbleeds detection using their magnetic signature on T2*-phase-contrast: A comparison study in a clinical setting. <i>NeuroImage: Clinical</i> , <b>2017</b> , 15, 274-283	5.3	7
12	Magnetic source MRI: a new quantitative imaging of magnetic biomarkers. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2009</b> , 2009, 53-6	0.9	6
11	Clinical Integration of Quantitative Susceptibility Mapping Magnetic Resonance Imaging into Neurosurgical Practice. <i>World Neurosurgery</i> , <b>2019</b> , 122, e10-e19	2.1	6
10	Simultaneous multi-parametric mapping of total sodium concentration, T, T and ADC at 7 T using a multi-contrast unbalanced SSFP. <i>Magnetic Resonance Imaging</i> , <b>2018</b> , 53, 156-163	3.3	5
9	Evaluation of lung recovery after static administration of three different perfluorocarbons in pigs. BMC Pharmacology & Discourse (amp; Toxicology, 2014, 15, 53)	2.6	5
8	Design of a fast field-cycling magnetic resonance imaging system, characterization and methods for relaxation dispersion measurements around 1.5 T. <i>Review of Scientific Instruments</i> , <b>2020</b> , 91, 024102	1.7	2
7	Quantitative Gd-DOTA-based aerosol deposition mapping in the lungs of asthmatic rats using 3D UTE-MRI. <i>NMR in Biomedicine</i> , <b>2018</b> , 31, e4013	4.4	2
6	Simultaneous proton density, T , T , and flip-angle mapping of the brain at 7 T using multiparametric 3D SSFP imaging and parallel-transmission universal pulses. <i>Magnetic Resonance in Medicine</i> , <b>2020</b> , 84, 3286-3299	4.4	1
5	Molecular Imaging to Predict Response to Targeted Therapies in Renal Cell Carcinoma. <i>Contrast Media and Molecular Imaging</i> , <b>2017</b> , 2017, 7498538	3.2	1
4	Phase contrast MRI for discriminating brain microbleed in a multicentre clinical study <b>2014</b> ,		1

Phase-contrast velocity mapping for highly diffusive fluids: optimal bipolar gradient pulse parameters for hyperpolarized helium-3. *Magnetic Resonance in Medicine*, **2014**, 72, 1072-8

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- MRI: recent advances and new horizons **2013**, 34-49
- Quantification strategies for MRI **2013**, 66-80