Rudolf Stollberger

List of Publications by Year
in descending order

88	3,667	218592 26	133188 59
papers	citations	h-index	g-index

90	90	90	4303
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Second order total generalized variation (TGV) for MRI. Magnetic Resonance in Medicine, 2011, 65, 480-491.	1.9	488
2	Imaging of the activeB1 fieldin vivo. Magnetic Resonance in Medicine, 1996, 35, 246-251.	1.9	321
3	Improved diffusion-weighted single-shot echo-planar imaging (EPI) in stroke using sensitivity encoding (SENSE). Magnetic Resonance in Medicine, 2001, 46, 548-554.	1.9	295
4	Diffusion tensor imaging using single-shot SENSE-EPI. Magnetic Resonance in Medicine, 2002, 48, 128-136.	1.9	267
5	Magnetic resonance diffusion tensor imaging for characterizing diffuse and focal white matter abnormalities in multiple sclerosis. Magnetic Resonance in Medicine, 2000, 44, 583-591.	1.9	241
6	Muscle-specific overexpression of lipoprotein lipase causes a severe myopathy characterized by proliferation of mitochondria and peroxisomes in transgenic mice.. Journal of Clinical Investigation, 1995, 96, 976-986.	3.9	199
7	Adapted random sampling patterns for accelerated MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2011, 24, 43-50.	1.1	103
8	Automated unwrapping of MR phase images applied to BOLD MR-venography at 3 Tesla. Journal of Magnetic Resonance Imaging, 2003, 18, 175-180.	1.9	98
9	Diffusion-weighted Imaging with Navigated Interleaved Echo-planar Imaging and a Conventional Gradient System. Radiology, 1999, 211, 799-806.	3.6	94
10	Invited. Temperature monitoring of interstitial thermal tissue coagulation using MR phase images. Journal of Magnetic Resonance Imaging, 1998, 8, 188-196.	1.9	88
11	Quantification of Tortuosity and Fractal Dimension of the Lung Vessels in Pulmonary Hypertension Patients. PLoS ONE, 2014, 9, e87515.	1.1	83
12	Parallel imaging with nonlinear reconstruction using variational penalties. Magnetic Resonance in Medicine, 2012, 67, 34-41.	1.9	81
13	Spatial distribution of high-frequency electromagnetic energy in human head during MRI: numerical results and measurements. IEEE Transactions on Biomedical Engineering, 1996, 43, 88.	2.5	76
14	Assessing abdominal fatness with local bioimpedance analysis: basics and experimental findings. International Journal of Obesity, 2001, 25, 502-511.	1.6	70
15	Diffusion-weighted imaging of the spinal cord: Interleaved echo-planar imaging is superior to fast spin-echo. Journal of Magnetic Resonance Imaging, 2002, 15, 364-373.	1.9	70
16	Nonlinear anisotropic diffusion filtering for multiscale edge enhancement. Inverse Problems, 2002, 18, 175-190.	1.0	69
17	Magnetic Resonance Imaging and Spectroscopy Findings After Focal Status Epilepticus. Epilepsia, 1995, 36, 946-949.	2.6	65
18	Ultrasmall superparamagnetic iron oxide (USPIO)-based liposomes as magnetic resonance imaging probes. International Journal of Nanomedicine, 2012, 7, 2349.	3.3	53

#	Article	IF	Citations
19	Surface design of coreâ€“shell superparamagnetic iron oxide nanoparticles drives record relaxivity values in functional MRI contrast agents. Chemical Communications, 2012, 48, 11398.	2.2	49
20	A Magnetically Drivable Nanovehicle for Curcumin with Antioxidant Capacity and MRI Relaxation Properties. Chemistry - A European Journal, 2014, 20, 11913-11920.	1.7	48
21	Infimal convolution of total generalized variation functionals for dynamic MRI. Magnetic Resonance in Medicine, 2017, 78, 142-155.	1.9	47
22	Temperatureâ€induced changes of magnetic resonance relaxation times in the human brain: A postmortem study. Magnetic Resonance in Medicine, 2014, 71, 1575-1580.	1.9	36
23	Spatio-temporal TGV denoising for ASL perfusion imaging. NeuroImage, 2017, 157, 81-96.	2.1	33
24	Detection of fungal wood decay using Magnetic Resonance Imaging. European Journal of Wood and Wood Products, 2001, 59, 190-194.	1.3	31
25	Rapid T₁ quantification from high resolution 3D data with modelâ€based reconstruction. Magnetic Resonance in Medicine, 2019, 81, 2072-2089.	1.9	30
26	Segmentation of wall and plaque in in vitro vascular MR images. International Journal of Cardiovascular Imaging, 2003, 19, 419-428.	0.2	27
27	3-D reconstruction of tissue components for atherosclerotic human arteries using ex vivo high-resolution MRI. IEEE Transactions on Medical Imaging, 2006, 25, 345-357.	5.4	26
28	Closedâ€form solution for T₂ mapping with nonideal refocusing of slice selective CPMG sequences. Magnetic Resonance in Medicine, 2015, 73, 818-827.	1.9	26
29	Robust single-shot acquisition of high resolution whole brain ASL images by combining time-dependent 2D CAPIRINHA sampling with spatio-temporal TGV reconstruction. NeuroImage, 2020, 206, 116337.	2.1	26
30	Non-invasive determination of pulmonary hypertension with dynamic contrast-enhanced computed tomography: a pilot study. European Radiology, 2014, 24, 668-676.	2.3	25
31	Iron mapping using the temperature dependency of the magnetic susceptibility. Magnetic Resonance in Medicine, 2015, 73, 1282-1288.	1.9	24
32	Value of a blood pool contrast agent in MR venography of the lower extremities and pelvis: Preliminary results in 12 patients. Magnetic Resonance in Medicine, 2003, 50, 993-1002.	1.9	23
33	Reconstruction of undersampled radial PatLoc imaging using total generalized variation. Magnetic Resonance in Medicine, 2013, 70, 40-52.	1.9	23
34	Efficient high-resolution RF pulse design applied to simultaneous multi-slice excitation. Journal of Magnetic Resonance, 2016, 263, 33-44.	1.2	23
35	Analysis of Carrâ€“Purcell Sequences with Nonideal Pulses. Journal of Magnetic Resonance Series B, 1995, 109, 301-309.	1.6	21
36	Fast reduction of undersampling artifacts in radial MR angiography with 3D total variation on graphics hardware. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2010, 23, 103-114.	1.1	21

#	Article	IF	Citations
37	Deconvolution for DCE-MRI using an exponential approximation basis. Medical Image Analysis, 2009, 13, 80-90.	7.0	17
38	Loss of intestinal GATA4 prevents diet-induced obesity and promotes insulin sensitivity in mice. American Journal of Physiology - Endocrinology and Metabolism, 2011, 300, E478-E488.	1.8	17
39	Estimation of magnetization transfer rates from PACE experiments with pulsed RF saturation. Journal of Magnetic Resonance Imaging, 2000, 12, 749-756.	1.9	16
40	Improved Perfusion and Tracer Kinetic Imaging Using Parallel Imaging. Topics in Magnetic Resonance Imaging, 2004, 15, 245-255.	0.7	16
41	Magnetic Resonance RF Pulse Design by Optimal Control With Physical Constraints. IEEE Transactions on Medical Imaging, 2018, 37, 461-472.	5.4	16
42	The Agile Library for Biomedical Image Reconstruction Using GPU Acceleration. Computing in Science and Engineering, 2013, 15, 34-44.	1.2	15
43	Simultaneous multislice refocusing via time optimal control. Magnetic Resonance in Medicine, 2018, 80, 1416-1428.	1.9	15
44	Reducing acquisition time for MRI-based forensic age estimation. Scientific Reports, 2018, 8, 2063.	1.6	14
45	Ultrafast 3D Blochâ€“Siegert Bâ€mapping using variational modeling. Magnetic Resonance in Medicine, 2019, 81, 881-892.	1.9	14
46	Positive contrast of SPIOâ€labeled cells by offâ€resonant reconstruction of 3D radial halfâ€echo bSSFP. NMR in Biomedicine, 2015, 28, 79-88.	1.6	13
47	In vivo cardiovascular magnetic resonance of 2D vessel wall diffusion anisotropy in carotid arteries. Journal of Cardiovascular Magnetic Resonance, 2016, 18, 81.	1.6	13
48	Healthy Lung Vessel Morphology Derived From Thoracic Computed Tomography. Frontiers in Physiology, 2018, 9, 346.	1.3	13
49	Time optimal controlâ€based RF pulse design under gradient imperfections. Magnetic Resonance in Medicine, 2020, 83, 561-574.	1.9	13
50	Determination of cardiac output with dynamic contrast-enhanced computed tomography. International Journal of Cardiovascular Imaging, 2013, 29, 1871-1878.	0.7	12
51	Fast multislice T1 and T1sat imaging using a phase acquisition of composite echoes (PACE) technique. Magnetic Resonance in Medicine, 1999, 42, 1089-1097.	1.9	11
52	Automated mitral valve vortex ring extraction from 4Dâ€flow MRI. Magnetic Resonance in Medicine, 2020, 84, 3396-3408.	1.9	11
53	Temperature dependence of viscosity, relaxation times (T1, T2) and simulated contrast for potential perfusates in post-mortem MR angiography (PMMRA). International Journal of Legal Medicine, 2017, 131, 739-749.	1.2	9
54	The four-minute approach revisited: accelerating MRI-based multi-factorial age estimation. International Journal of Legal Medicine, 2020, 134, 1475-1485.	1.2	9

#	Article	IF	Citations
55	T1 imaging using phase acquisition of composite echoes. Magnetic Resonance in Medicine, 1999, 41, 386-391.	1.9	8
56	T1 maps from shifted spin echoes and stimulated echoes. Magnetic Resonance in Medicine, 2001, 46, 1242-1245.	1.9	8
57	Magnetic resonance elastography of the human brain using a multiphase DENSE acquisition. Magnetic Resonance in Medicine, 2019, 81, 3578-3587.	1.9	8
58	Time-Dependent Changes in T1 during Fracture Healing in Juvenile Rats: A Quantitative MR Approach. PLoS ONE, 2016, 11, e0164284.	1.1	8
59	Automated macrovessel artifact correction in dynamic susceptibility contrast magnetic resonance imaging using independent component analysis. Magnetic Resonance in Medicine, 2011, 65, 848-857.	1.9	7
60	Laryngeal Electromyography: Electrode Guidance Based on 3-Dimensional Magnetic Resonance Tomography Images of the Larynx. Journal of Voice, 2012, 26, 110-116.	0.6	7
61	PyQMRI: An accelerated Python based Quantitative MRI toolbox. Journal of Open Source Software, 2020, 5, 2727.	2.0	7
62	Time related changes of T1, T2, and <mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.. Fore	1.3	6
63	Accuracy and performance analysis for Bloch and Bloch-McConnell simulation methods. Journal of Magnetic Resonance, 2021, 329, 107011.	1.2	6
64	Automated vortical blood flow-based estimation of mean pulmonary arterial pressure from 4D flow MRI. Magnetic Resonance Imaging, 2022, 88, 132-141.	1.0	6
65	Revision of the theory of tracer transport and the convolution model of dynamic contrast enhanced magnetic resonance imaging. Journal of Mathematical Biology, 2007, 55, 389-411.	0.8	5
66	In Vitro Angioplasty of Atherosclerotic Human Femoral Arteries: Analysis of the Geometrical Changes in the Individual Tissues Using MRI and Image Processing. Annals of Biomedical Engineering, 2010, 38, 1276-1287.	1.3	5
67	A fully automated trabecular bone structural analysis tool based on T2*-weighted magnetic resonance imaging. Computerized Medical Imaging and Graphics, 2012, 36, 85-94.	3.5	5
68	Post-mortem MR angiography: quantitative investigation and intravascular retention of perfusates in ex situ porcine hearts. International Journal of Legal Medicine, 2018, 132, 579-587.	1.2	5
69	Non-linear fitting with joint spatial regularization in arterial spin labeling. Medical Image Analysis, 2021, 71, 102067.	7.0	5
70	Periventricular magnetisation transfer abnormalities in early multiple sclerosis. NeuroImage: Clinical, 2022, 34, 103012.	1.4	5
71	A no-tune no-match wideband probe for nuclear quadrupole resonance spectroscopy in the VHF range. Measurement Science and Technology, 2014, 25, 125501.	1.4	4
72	Joint multiâ€field T<scp>₁</scp> quantification for fast fieldâ€cycling MRI. Magnetic Resonance in Medicine, 2021, 86, 2049-2063.	1.9	4

#	Article	IF	Citations
73	Assessment of pharmacokinetics for microvessel proliferation by DCE-MRI for early detection of physeal bone bridge formation in an animal model. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2017, 30, 417-427.	1.1	2
74	Reproducibility of relaxometry of human lumbar vertebrae at 3 Tesla using ¹H MR spectroscopy. Journal of Magnetic Resonance Imaging, 2018, 48, 153-159.	1.9	2
75	A time domain signal equation for multi-echo spin-echo sequences with arbitrary excitation and refocusing angle and phase. Journal of Magnetic Resonance, 2019, 309, 106515.	1.2	2
76	Assessment and correction of macroscopic field variations in 2D spoiled gradientâ€echo sequences. Magnetic Resonance in Medicine, 2020, 84, 620-633.	1.9	2
77	<title>Interstitial laser-assisted thermotherapy of central brain tumors under magnetic resonance control</title>. , 1994, 2327, 269.		1
78	HochaufgelÃ¶ste diffusionsgewichtete MRT mit Multishot EPI und Phasennavigation bei zerebralen IschÃmien. Biomedizinische Technik, 1998, 43, 12-14.	0.9	1
79	T2 and T2â^— mapping in ex situ porcine myocardium: myocardial intravariability, temporal stability and the effects of complete coronary occlusion. International Journal of Legal Medicine, 2020, 134, 679-690.	1.2	1
80	Adaptive sliceâ€specific zâ€shimming for 2D spoiled gradientâ€echo sequences. Magnetic Resonance in Medicine, 2021, 85, 818-830.	1.9	1
81	<title>Assessing the differences of reactive hyperemic flow due to the contribution of forearm composition using automated tissue segmentation from MR scans and venous occlusion strain gauge plethysmograph</title>. , 1998, , .		0
82	<title>Assessment of dynamic magnetic resonance images using an independent workstation for determination, visualization, and quantitative analysis of pharmacokinetic and physiological parameters</title>. , 1998, , .		0
83	3D Gd-enhanced MRA for establishing venous thrombo-embolic disease: one stop shop imaging of pulmonary arteries, vena cava, pelvic and both lower extremity veins in 30 min. International Congress Series, 2003, 1256, 3-5.	0.2	0
84	AUTOMATISCHE DETEKTION DER ARTERIELLEN INPUTFUNKTION IN DER DYNAMISCHEN KONTRASTMITTEL VERSTÃ„RKTEN MR PERFUSIONS BILDGEBUNG. Biomedizinische Technik, 2003, 48, 104-105.	0.9	0
85	Vascular MR segmentation: wall and plaque. , 2003, 5032, 1667.		0
86	The vertebral trabecular model revisited: magnetic field distribution in the vicinity of osseous disconnections. Physics in Medicine and Biology, 2016, 61, N618-N631.	1.6	0
87	Impact of the Choice of Native T 1 in Pixelwise Myocardial Blood Flow Quantification. Journal of Magnetic Resonance Imaging, 2021, 53, 755-765.	1.9	0
88	ASSESSMENT OF PLAQUE STABILITY BASED ON HIGH-RESOLUTION MAGNETIC RESONANCE IMAGING OF HUMAN ATHEROSCLEROTIC LESIONS AND COMPUTATIONAL MECHANICAL ANALYSIS. , 2004, , 101-115.		0