Michael S Middleton

List of Publications by Year
in descending order

61 papers	5,758 citations	126708 33 h-index	123241 61 g-index
61 all docs	61 docs citations	61 times ranked	5161 citing authors

#	Article	IF	Citations
1	Automated CNNâ€“Based Analysis Versus Manual Analysis for MR Elastography in Nonalcoholic Fatty Liver Disease: Intermethod Agreement and Fibrosis Stage Discriminative Performance. American Journal of Roentgenology, 2022, 219, 224-232.	1.0	6
2	MR elastography in nonalcoholic fatty liver disease: inter-center and inter-analysis-method measurement reproducibility and accuracy at 3T. European Radiology, 2022, 32, 2937-2948.	2.3	12
3	Temperatureâ€corrected proton density fat fraction estimation using chemical shiftâ€encoded MRI in phantoms. Magnetic Resonance in Medicine, 2021, 86, 69-81.	1.9	11
4	Repeatability and accuracy of various region-of-interest sampling strategies for hepatic MRI proton density fat fraction quantification. Abdominal Radiology, 2021, 46, 3105-3116.	1.0	5
5	Linearity and Bias of Proton Density Fat Fraction as a Quantitative Imaging Biomarker: A Multicenter, Multiplatform, Multivendor Phantom Study. Radiology, 2021, 298, 640-651.	3.6	39
6	Magnetic resonance elastography biomarkers for detection of histologic alterations in nonalcoholic fatty liver disease in the absence of fibrosis. European Radiology, 2021, 31, 8408-8419.	2.3	6
7	Hepatic Steatosis is Negatively Associated with Bone Mineral Density in Children. Journal of Pediatrics, 2021, 233, 105-111.e3.	0.9	4
8	Dairy Fat Intake, Plasma Pentadecanoic Acid, and Plasma Isoâ€heptadecanoic Acid Are Inversely Associated With Liver Fat in Children. Journal of Pediatric Gastroenterology and Nutrition, 2021, 72, e90-e96.	0.9	16
9	Accuracy of common proton density fat fraction thresholds for magnitude- and complex-based chemical shift-encoded MRI for assessing hepatic steatosis in patients with obesity. Abdominal Radiology, 2020, 45, 661-671.	1.0	16
10	The relationship between liver triglyceride composition and proton density fat fraction as assessed by 1 H MRS. NMR in Biomedicine, 2020, 33, e4286.	1.6	9
11	Evaluation of Quantitative Imaging Biomarkers for Earlyâ€phase Clinical Trials of Steatohepatitis in Adolescents. Journal of Pediatric Gastroenterology and Nutrition, 2020, 70, 99-105.	0.9	5
12	Prospective comparison of longitudinal change in hepatic proton density fat fraction (PDFF) estimated by magnitude-based MRI (MRI-M) and complex-based MRI (MRI-C). European Radiology, 2020, 30, 5120-5129.	2.3	2
13	Effect of a Low Free Sugar Diet vs Usual Diet on Nonalcoholic Fatty Liver Disease in Adolescent Boys. JAMA - Journal of the American Medical Association, 2019, 321, 256.	3.8	163
14	Automated CT and MRI Liver Segmentation and Biometry Using a Generalized Convolutional Neural Network. Radiology: Artificial Intelligence, 2019, 1, 180022.	3.0	78
15	Prevalence of Nonalcoholic Fatty Liver Disease in Children with Obesity. Journal of Pediatrics, 2019, 207, 64-70.	0.9	130
16	Hepatic R2* is more strongly associated with proton density fat fraction than histologic liver iron scores in patients with nonalcoholic fatty liver disease. Journal of Magnetic Resonance Imaging, 2019, 49, 1456-1466.	1.9	28
17	Longitudinal correlations between MRE, MRI-PDFF, and liver histology in patients with non-alcoholic steatohepatitis: Analysis of data from a phase II trial of selonsertib. Journal of Hepatology, 2019, 70, 133-141.	1.8	149
18	Assessment of a highâ€SNR chemicalâ€shiftâ€encoded MRI with complex reconstruction for proton density fat fraction (PDFF) estimation overall and in the lowâ€fat range. Journal of Magnetic Resonance Imaging, 2019, 49, 229-238.	1.9	9

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19	Acetyl-CoA Carboxylase Inhibitor GS-0976 for 12 Weeks Reduces Hepatic De Novo Lipogenesis and Steatosis in Patients With Nonalcoholic Steatohepatitis. Clinical Gastroenterology and Hepatology, 2018, 16, 1983-1991.e3.	2.4	153
20	Magnetic Resonance Imaging Proton Density Fat Fraction Associates With Progression of Fibrosis in Patients With Nonalcoholic Fatty Liver Disease. Gastroenterology, 2018, 155, 307-310.e2.	0.6	113
21	Crossâ€sectional correlation between hepatic R2* and proton density fat fraction (PDFF) in children with hepatic steatosis. Journal of Magnetic Resonance Imaging, 2018, 47, 418-424.	1.9	19
22	Diagnostic accuracy of magnetic resonance imaging hepatic proton density fat fraction in pediatric nonalcoholic fatty liver disease. Hepatology, 2018, 67, 858-872.	3.6	112
23	MRI proton density fat fraction is robust across the biologically plausible range of triglyceride spectra in adults with nonalcoholic steatohepatitis. Journal of Magnetic Resonance Imaging, 2018, 47, 995-1002.	1.9	27
24	Linearity, Bias, and Precision of Hepatic Proton Density Fat Fraction Measurements by Using MR Imaging: A Meta-Analysis. Radiology, 2018, 286, 486-498.	3.6	225
25	GS-0976 Reduces Hepatic Steatosis and Fibrosis Markers in Patients With Nonalcoholic Fatty Liver Disease. Gastroenterology, 2018, 155, 1463-1473.e6.	0.6	238
26	Effect of intravenous gadoxetate disodium and flip angle on hepatic proton density fat fraction estimation with six-echo, gradient-recalled-echo, magnitude-based MR imaging at 3T. Abdominal Radiology, 2017, 42, 1189-1198.	1.0	6
27	Agreement between region-of-interest- and parametric map-based hepatic proton density fat fraction estimation in adults with chronic liver disease. Abdominal Radiology, 2017, 42, 833-841.	1.0	6
28	Quantifying Abdominal Adipose Tissue and Thigh Muscle Volume and Hepatic Proton Density Fat Fraction: Repeatability and Accuracy of an MR Imagingâ€“based, Semiautomated Analysis Method. Radiology, 2017, 283, 438-449.	3.6	38
29	Liver histology and diffusionâ€weighted MRI in children with nonalcoholic fatty liver disease: A MAGNET study. Journal of Magnetic Resonance Imaging, 2017, 46, 1149-1158.	1.9	25
30	Magnetic resonance elastography measured shear stiffness as a biomarker of fibrosis in pediatric nonalcoholic fatty liver disease. Hepatology, 2017, 66, 1474-1485.	3.6	103
31	Repeatability and reproducibility of 2D and 3D hepatic MR elastography with rigid and flexible drivers at end-expiration and end-inspiration in healthy volunteers. Abdominal Radiology, 2017, 42, 2843-2854.	1.0	34
32	Agreement Between Magnetic Resonance Imaging Proton Density Fat Fraction Measurements and Pathologist-Assigned Steatosis Grades of Liver Biopsies From Adults With Nonalcoholic Steatohepatitis. Gastroenterology, 2017, 153, 753-761.	0.6	209
33	Accuracy of PDFF estimation by magnitudeâ€based and complexâ€based MRI in children with MR spectroscopy as a reference. Journal of Magnetic Resonance Imaging, 2017, 46, 1641-1647.	1.9	19
34	Intravenous Gadoxetate Disodium Administration Reduces Breath-holding Capacity in the Hepatic Arterial Phase: A Multi-Center Randomized Placebo-controlled Trial. Radiology, 2017, 282, 361-368.	3.6	46
35	In vivo triglyceride composition of abdominal adipose tissue measured by ¹H MRS at 3T. Journal of Magnetic Resonance Imaging, 2017, 45, 1455-1463.	1.9	44
36	Accuracy and the effect of possible subjectâ€based confounders of magnitudeâ€based MRI for estimating hepatic proton density fat fraction in adults, using MR spectroscopy as reference. Journal of Magnetic Resonance Imaging, 2016, 43, 398-406.	1.9	52

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37	Imaging Outcomes of Liver Imaging Reporting and Data System Version 2014 Category 2, 3, and 4 Observations Detected at CT and MR Imaging. Radiology, 2016, 281, 129-139.	3.6	85
38	In Children With Nonalcoholic Fatty Liver Disease, Cysteamine Bitartrate Delayed Release Improves Liver Enzymes but Does Not Reduce Disease Activity Scores. Gastroenterology, 2016, 151, 1141-1154.e9.	0.6	100
39	Accuracy of multiecho magnitudeâ€based MRI (Mâ€MRI) for estimation of hepatic proton density fat fraction (PDFF) in children. Journal of Magnetic Resonance Imaging, 2015, 42, 1223-1232.	1.9	25
40	In vivo breathâ€hold ¹H MRS simultaneous estimation of liver proton density fat fraction, and T₁ and T₂ of water and fat, with a multiâ€TR, multiâ€TE sequence. Journal of Magnetic Resonance Imaging, 2015, 42, 1538-1543.	1.9	32
41	Evaluation of Liver Fibrosis Using Texture Analysis on Combined-Contrast-Enhanced Magnetic Resonance Images at 3.0T. BioMed Research International, 2015, 2015, 1-12.	0.9	28
42	Accuracy of MR Imagingâ€“estimated Proton Density Fat Fraction for Classification of Dichotomized Histologic Steatosis Grades in Nonalcoholic Fatty Liver Disease. Radiology, 2015, 274, 416-425.	3.6	239
43	Magnetic resonance imaging and liver histology as biomarkers of hepatic steatosis in children with nonalcoholic fatty liver disease. Hepatology, 2015, 61, 1887-1895.	3.6	138
44	Intra- and inter-examination repeatability of magnetic resonance spectroscopy, magnitude-based MRI, and complex-based MRI for estimation of hepatic proton density fat fraction in overweight and obese children and adults. Abdominal Imaging, 2015, 40, 3070-3077.	2.0	57
45	Feasibility of and agreement between MR imaging and spectroscopic estimation of hepatic proton density fat fraction in children with known or suspected nonalcoholic fatty liver disease. Abdominal Imaging, 2015, 40, 3084-3090.	2.0	20
46	Diagnostic Accuracy of Preoperative Gadoxetic Acidâ€“enhanced 3-T MR Imaging for Malignant Liver Lesions by Using Ex Vivo MR Imagingâ€“matched Pathologic Findings as the Reference Standard. Radiology, 2015, 276, 775-786.	3.6	14
47	Associations between histologic features of nonalcoholic fatty liver disease (NAFLD) and quantitative diffusionâ€weighted MRI measurements in adults. Journal of Magnetic Resonance Imaging, 2015, 41, 1629-1638.	1.9	57
48	Spatial distribution of MRI-determined hepatic proton density fat fraction in adults with nonalcoholic fatty liver disease. Journal of Magnetic Resonance Imaging, 2014, 39, 1525-1532.	1.9	85
49	Effect of flip angle on the accuracy and repeatability of hepatic proton density fat fraction estimation by complex dataâ€based, T1â€independent, T2*â€corrected, spectrumâ€modeled MRI. Journal of Magnetic Resonance Imaging, 2014, 39, 440-447.	1.9	43
50	Inter-examination precision of magnitude-based MRI for estimation of segmental hepatic proton density fat fraction in obese subjects. Journal of Magnetic Resonance Imaging, 2014, 39, 1265-1271.	1.9	47
51	MR Evaluation of Breast Implants. Radiologic Clinics of North America, 2014, 52, 591-608.	0.9	20
52	Utility of magnetic resonance imaging versus histology for quantifying changes in liver fat in nonalcoholic fatty liver disease trials. Hepatology, 2013, 58, 1930-1940.	3.6	434
53	Nonalcoholic Fatty Liver Disease: MR Imaging of Liver Proton Density Fat Fraction to Assess Hepatic Steatosis. Radiology, 2013, 267, 422-431.	3.6	410
54	Reproducibility of MRIâ€determined proton density fat fraction across two different MR scanner platforms. Journal of Magnetic Resonance Imaging, 2011, 34, 928-934.	1.9	130

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55	In vivo characterization of the liver fat ¹H MR spectrum. NMR in Biomedicine, 2011, 24, 784-790.	1.6	452
56	Estimation of Hepatic Proton-Density Fat Fraction by Using MR Imaging at 3.0 T. Radiology, 2011, 258, 749-759.	3.6	259
57	Effect of PRESS and STEAM sequences on magnetic resonance spectroscopic liver fat quantification. Journal of Magnetic Resonance Imaging, 2009, 30, 145-152.	1.9	201
58	Nonalcoholic Fatty Liver Disease: Diagnostic and Fat-Grading Accuracy of Low-Flip-Angle Multiecho Gradient-Recalled-Echo MR Imaging at 1.5 T. Radiology, 2009, 251, 67-76.	3.6	287
59	Relaxation effects in the quantification of fat using gradient echo imaging. Magnetic Resonance Imaging, 2008, 26, 347-359.	1.0	356
60	Effects of intravenous gadolinium administration and flip angle on the assessment of liver fat signal fraction with opposedâ€phase and inâ€phase imaging. Journal of Magnetic Resonance Imaging, 2008, 28, 246-251.	1.9	22
61	Diagnosis of fatty liver with MR imaging. Journal of Magnetic Resonance Imaging, 1992, 2, 463-471.	1.9	60