

Samuel Patz

List of Publications by Year in descending order

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84
papers

6,002
citations

136740

32
h-index

76769

74
g-index

87
all docs

87
docs citations

87
times ranked

6581
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | The rician distribution of noisy mri data. Magnetic Resonance in Medicine, 1995, 34, 910-914. | 1.9 | 2,061 |
| 2 | 25-Hydroxyvitamin D, dementia, and cerebrovascular pathology in elders receiving home services. Neurology, 2010, 74, 18-26. | 1.5 | 273 |
| 3 | Line scan diffusion imaging. Magnetic Resonance in Medicine, 1996, 36, 509-519. | 1.9 | 241 |
| 4 | Evidence for Adult Lung Growth in Humans. New England Journal of Medicine, 2012, 367, 244-247. | 13.9 | 237 |
| 5 | Near-unity nuclear polarization with an open-source ¹²⁹ Xe hyperpolarizer for NMR and MRI. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14150-14155. | 3.3 | 193 |
| 6 | Probing Porous Media with Gas Diffusion NMR. Physical Review Letters, 1999, 83, 3324-3327. | 2.9 | 187 |
| 7 | Large Production System for Hyperpolarized ¹²⁹ Xe for Human Lung Imaging Studies. Academic Radiology, 2008, 15, 683-692. | 1.3 | 137 |
| 8 | Line scan diffusion imaging: characterization in healthy subjects and stroke patients.. American Journal of Roentgenology, 1998, 171, 85-93. | 1.0 | 133 |
| 9 | Hyperpolarized ¹²⁹ Xe MRI: A viable functional lung imaging modality?. European Journal of Radiology, 2007, 64, 335-344. | 1.2 | 130 |
| 10 | Quantitative CT Measurement of Cross-sectional Area of Small Pulmonary Vessel in COPD. Academic Radiology, 2010, 17, 93-99. | 1.3 | 123 |
| 11 | Human Pulmonary Imaging and Spectroscopy with Hyperpolarized ¹²⁹ Xe at 0.2T. Academic Radiology, 2008, 15, 713-727. | 1.3 | 121 |
| 12 | Diffusion Tensor Imaging, White Matter Lesions, the Corpus Callosum, and Gait in the Elderly. Stroke, 2009, 40, 3816-3820. | 1.0 | 95 |
| 13 | Rapid Fourier imaging using steady-state free precession. Magnetic Resonance in Medicine, 1987, 4, 9-23. | 1.9 | 91 |
| 14 | Quantification of Age-Related and per Diopter Accommodative Changes of the Lens and Ciliary Muscle in the Emmetropic Human Eye. , 2013, 54, 1095. | | 88 |
| 15 | Pulsed-Field-Gradient Measurements of Time-Dependent Gas Diffusion. Journal of Magnetic Resonance, 1998, 135, 478-486. | 1.2 | 79 |
| 16 | Diffusion of hyperpolarized ¹²⁹ Xe in the lung: a simplified model of ¹²⁹ Xe septal uptake and experimental results. New Journal of Physics, 2011, 13, 015009. | 1.2 | 78 |
| 17 | The application of steady-state free precession to the study of very slow fluid flow. Magnetic Resonance in Medicine, 1986, 3, 140-145. | 1.9 | 71 |
| 18 | Prototype Miniature Endoluminal MR Imaging Catheter. Journal of Vascular and Interventional Radiology, 1993, 4, 419-427. | 0.2 | 68 |

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|----|---|-----|-----------|
| 19 | Some factors that influence the steady state in steady-state free precession. Magnetic Resonance Imaging, 1988, 6, 405-413. | 1.0 | 67 |
| 20 | Measuring surface-area-to-volume ratios in soft porous materials using laser-polarized xenon interphase exchange nuclear magnetic resonance. Journal of Physics Condensed Matter, 2002, 14, L297-L304. | 0.7 | 66 |
| 21 | The Nutrition, Aging, and Memory in Elders (NAME) study: design and methods for a study of micronutrients and cognitive function in a homebound elderly population. International Journal of Geriatric Psychiatry, 2006, 21, 519-528. | 1.3 | 66 |
| 22 | REVIEW: MR elastography of brain tumors. NeuroImage: Clinical, 2020, 25, 102109. | 1.4 | 65 |
| 23 | Orbitofrontal correlates of aggression and impulsivity in psychiatric patients. Psychiatry Research - Neuroimaging, 2006, 147, 213-220. | 0.9 | 64 |
| 24 | Tortuosity measurement and the effects of finite pulse widths on xenon gas diffusion NMR studies of porous media. Magnetic Resonance Imaging, 2001, 19, 345-351. | 1.0 | 58 |
| 25 | XeNA: An automated "open-source"™ 129Xe hyperpolarizer for clinical use. Magnetic Resonance Imaging, 2014, 32, 541-550. | 1.0 | 57 |
| 26 | Homocysteine and B vitamins relate to brain volume and white-matter changes in geriatric patients with psychiatric disorders. American Journal of Geriatric Psychiatry, 2004, 12, 631-8. | 0.6 | 54 |
| 27 | Magnetic Resonance Imaging of Immiscible-Fluid Displacement in Porous Media. Physical Review Letters, 1988, 61, 1489-1492. | 2.9 | 51 |
| 28 | Demonstration of an Anterior Diffusional Pathway for Solutes in the Normal Human Eye with High Spatial Resolution Contrast-Enhanced Dynamic MR Imaging. , 2006, 47, 5153. | | 47 |
| 29 | Quantitative Assessment of Bronchial Wall Attenuation With Thin-Section CT: An Indicator of Airflow Limitation in Chronic Obstructive Pulmonary Disease. American Journal of Roentgenology, 2010, 195, 363-369. | 1.0 | 40 |
| 30 | Simultaneous calculation of flow and diffusion sensitivity in steady-state free precession imaging. Magnetic Resonance in Medicine, 1995, 34, 567-579. | 1.9 | 34 |
| 31 | Lung Motion and Volume Measurement by Dynamic 3D MRI Using a 128-Channel Receiver Coil. Academic Radiology, 2009, 16, 22-27. | 1.3 | 34 |
| 32 | Skeletal muscle chemoreflex and pHi in exercise ventilatory control. Journal of Applied Physiology, 1998, 84, 676-682. | 1.2 | 33 |
| 33 | High-Resolution MR Imaging of the Human Eye 2005. Academic Radiology, 2006, 13, 368-378. | 1.3 | 33 |
| 34 | Missing pulse steady-state free precession. Magnetic Resonance in Medicine, 1989, 10, 194-209. | 1.9 | 32 |
| 35 | T_1 and T_2 measurements of the fine structures of the in vivo and enucleated human eye. Journal of Magnetic Resonance Imaging, 2007, 26, 510-518. | 1.9 | 32 |
| 36 | Hyperpolarized Gas MR Imaging of the Lung: Current Status as a Research Tool. Journal of Thoracic Imaging, 2009, 24, 181-188. | 0.8 | 32 |

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|----|--|-----|-----------|
| 37 | Imaging localized neuronal activity at fast time scales through biomechanics. <i>Science Advances</i> , 2019, 5, eaav3816. | 4.7 | 32 |
| 38 | MRI of pulsatile CSF motion within arachnoid cysts. <i>Magnetic Resonance Imaging</i> , 1988, 6, 575-584. | 1.0 | 31 |
| 39 | Single-breath xenon polarization transfer contrast (SB-XTTC): Implementation and initial results in healthy humans. <i>Journal of Magnetic Resonance Imaging</i> , 2013, 37, 457-470. | 1.9 | 31 |
| 40 | Analytical solution and verification of diffusion effect in SSFP. <i>Magnetic Resonance in Medicine</i> , 1991, 19, 240-246. | 1.9 | 29 |
| 41 | Cough-Associated Headache in Patients with Chiari I Malformation: CSF Flow Analysis by Means of Cine Phase-Contrast MR Imaging. <i>American Journal of Neuroradiology</i> , 2011, 32, 739-742. | 1.2 | 29 |
| 42 | Physiology-Based MR Imaging Assessment of CSF Flow at the Foramen Magnum with a Valsalva Maneuver. <i>American Journal of Neuroradiology</i> , 2013, 34, 1857-1862. | 1.2 | 27 |
| 43 | Fast Imaging of CSF Flow/Motion Patterns Using Steady-State Free Precession (SSFP). <i>Investigative Radiology</i> , 1987, 22, 761-771. | 3.5 | 26 |
| 44 | Characterization of glioblastoma in an orthotopic mouse model with magnetic resonance elastography. <i>NMR in Biomedicine</i> , 2018, 31, e3840. | 1.6 | 25 |
| 45 | Functional MR Imaging of the Lung. <i>Magnetic Resonance Imaging Clinics of North America</i> , 2008, 16, 275-289. | 0.6 | 23 |
| 46 | Magnetic resonance imaging of the cervix during pregnancy: Effect of gestational age and prior vaginal birth. <i>American Journal of Obstetrics and Gynecology</i> , 2005, 193, 1554-1560. | 0.7 | 22 |
| 47 | Pilocarpine's effects on the blood-aqueous barrier of the human eye as assessed by high-resolution, contrast magnetic resonance imaging. <i>Experimental Eye Research</i> , 2006, 82, 458-464. | 1.2 | 21 |
| 48 | Spin-lock techniques and CPMG imaging sequences: A critical appraisal of T1 ρ contrast at 0.15 T. <i>Magnetic Resonance Imaging</i> , 1989, 7, 437-444. | 1.0 | 19 |
| 49 | NMR diffusion simulation based on conditional random walk. <i>IEEE Transactions on Medical Imaging</i> , 1995, 14, 636-642. | 5.4 | 19 |
| 50 | Posture-dependent Human ³ He Lung Imaging in an Open-access MRI System. <i>Academic Radiology</i> , 2008, 15, 728-739. | 1.3 | 17 |
| 51 | Cough-Associated Changes in CSF Flow in Chiari I Malformation Evaluated by Real-Time MRI. <i>American Journal of Neuroradiology</i> , 2016, 37, 825-830. | 1.2 | 17 |
| 52 | Reduced xenon diffusion for quantitative lung study?the role of SF ₆ . <i>NMR in Biomedicine</i> , 2000, 13, 229-233. | 1.6 | 15 |
| 53 | Novel MR Imaging Applications for Pleural evaluation. <i>Magnetic Resonance Imaging Clinics of North America</i> , 2015, 23, 179-195. | 0.6 | 15 |
| 54 | A portable single-sided magnet system for remote NMR measurements of pulmonary function. <i>NMR in Biomedicine</i> , 2014, 27, 1479-1489. | 1.6 | 14 |

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|----|--|------|-----------|
| 55 | Inhalation heterogeneity from subresidual volumes in elite divers. <i>Journal of Applied Physiology</i> , 2010, 109, 1969-1973. | 1.2 | 12 |
| 56 | The relationship between plasma amyloid- β^2 peptides and the medial temporal lobe in the homebound elderly. <i>International Journal of Geriatric Psychiatry</i> , 2011, 26, 593-601. | 1.3 | 11 |
| 57 | Relationship between Cough-Associated Changes in CSF Flow and Disease Severity in Chiari I Malformation: An Exploratory Study Using Real-Time MRI. <i>American Journal of Neuroradiology</i> , 2018, 39, 1267-1272. | 1.2 | 11 |
| 58 | Magnetic Resonance Elastography reveals effects of anti-angiogenic glioblastoma treatment on tumor stiffness and captures progression in an orthotopic mouse model. <i>Cancer Imaging</i> , 2020, 20, 35. | 1.2 | 11 |
| 59 | Application of missing pulse steady state free precession to the study of renal microcirculation. <i>Magnetic Resonance in Medicine</i> , 1991, 20, 66-77. | 1.9 | 10 |
| 60 | A position-sensitive neutron spectrometer/dosimeter based on pressurized superheated drop (bubble) detectors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002, 476, 113-118. | 0.7 | 10 |
| 61 | Toward C13 hyperpolarized biomarkers produced by thermal mixing with hyperpolarized X129e. <i>Journal of Chemical Physics</i> , 2009, 131, 044508. | 1.2 | 10 |
| 62 | Clinical experience with rapid 2DFT SSFP imaging at low field strength. <i>Magnetic Resonance Imaging</i> , 1988, 6, 397-403. | 1.0 | 9 |
| 63 | Reconstruction algorithm for novel ultrafast magnetic resonance imaging. <i>International Journal of Imaging Systems and Technology</i> , 1999, 10, 209-215. | 2.7 | 5 |
| 64 | Evidence of Adult Lung Growth in Humans. <i>New England Journal of Medicine</i> , 2012, 367, 1566-1567. | 18.9 | 5 |
| 65 | High field NMR studies of static ordering and spin energy coupling in MnF2. <i>Journal of Applied Physics</i> , 1981, 52, 1938-1940. | 1.1 | 4 |
| 66 | Exploring collagen self-assembly by NMR. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 14169. | 1.3 | 4 |
| 67 | Basic physics of nuclear magnetic resonance. <i>CardioVascular and Interventional Radiology</i> , 1986, 8, 225-237. | 0.9 | 2 |
| 68 | Application of single species chemical shift imaging to sandstone cores. <i>Magnetic Resonance Imaging</i> , 1991, 9, 797-802. | 1.0 | 2 |
| 69 | Chemical shift imaging of particle filtration in sandstone cores. <i>Magnetic Resonance Imaging</i> , 1994, 12, 313-315. | 1.0 | 2 |
| 70 | Science to Practice: How Do We Interpret the Transfer of Hyperpolarized ¹²⁹ Xe from Blood into Alveolar Gas?. <i>Radiology</i> , 2009, 252, 319-321. | 3.6 | 2 |
| 71 | The Kety-Schmidt Technique for Quantitative Perfusion and Oxygen Metabolism Measurements in the MR Imaging Environment. <i>American Journal of Neuroradiology</i> , 2013, 34, E100-E102. | 1.2 | 2 |
| 72 | Magnetic resonance elastography to study the effect of amyloid plaque accumulation in a mouse model. <i>Journal of Neuroimaging</i> , 2022, , . | 1.0 | 2 |

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|----|---|-----|-----------|
| 73 | The placing of many large superconducting magnets in a limited space. <i>Magnetic Resonance in Medicine</i> , 1985, 2, 262-274. | 1.9 | 1 |
| 74 | MRI in the Assessment of Cardiopulmonary Interaction. , 2021, , 619-631. | | 1 |
| 75 | Mapping of normal and abnormal cerebrospinal fluid flow/motion patterns using steady state free precession imaging. <i>Acta Radiologica Supplementum</i> , 1986, 369, 302-4. | 0.5 | 1 |
| 76 | 5572132 MRI probe for external imaging. <i>Magnetic Resonance Imaging</i> , 1997, 15, XVII. | 1.0 | 0 |
| 77 | Analytic reconstruction of magnetic resonance imaging signal obtained from a periodic encoding field. <i>Medical Physics</i> , 2000, 27, 2060-2064. | 1.6 | 0 |
| 78 | Magnetic resonance imaging of the cervix during pregnancy: Effect of gestational age and prior vaginal birth. <i>American Journal of Obstetrics and Gynecology</i> , 2004, 191, S175. | 0.7 | 0 |
| 79 | Dr Bert et al replies. <i>Academic Radiology</i> , 2007, 14, 117-118. | 1.3 | 0 |
| 80 | Hyperpolarized 129Xenon MRI of the Lung. <i>Medical Radiology</i> , 2017, , 99-124. | 0.0 | 0 |
| 81 | Cover image, Volume 31 Issue 10. <i>NMR in Biomedicine</i> , 2018, 31, e3825. | 1.6 | 0 |
| 82 | Chapter 19. Xenon Septal Uptake. <i>New Developments in NMR</i> , 2015, , 336-364. | 0.1 | 0 |
| 83 | MRI of Pulmonary Ventilation. <i>Medical Radiology</i> , 2009, , 35-90. | 0.0 | 0 |
| 84 | Towards Posture-Dependent Human Pulmonary Oxygen Mapping Using Hyperpolarized Helium and an Open-Access MRI System. , 0, , 117-127. | | 0 |