# Yogesh Rathi

## List of Publications by Year
## in descending order

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|---|---|---|---|
| 115 papers | 3,861 citations | 126907<br>33 h-index | 161849<br>54 g-index |
| 117 all docs | 117 docs citations | 117 times ranked | 4278 citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Limits to anatomical accuracy of diffusion tractography using modern approaches. NeuroImage, 2019, 185, 1-11. | 4.2 | 200 |
| 2 | Filtered Multitensor Tractography. IEEE Transactions on Medical Imaging, 2010, 29, 1664-1675. | 8.9 | 196 |
| 3 | The white matter query language: a novel approach for describing human white matter anatomy. Brain Structure and Function, 2016, 221, 4705-4721. | 2.3 | 170 |
| 4 | An anatomically curated fiber clustering white matter atlas for consistent white matter tract parcellation across the lifespan. NeuroImage, 2018, 179, 429-447. | 4.2 | 146 |
| 5 | Spatially Regularized Compressed Sensing for High Angular Resolution Diffusion Imaging. IEEE Transactions on Medical Imaging, 2011, 30, 1100-1115. | 8.9 | 134 |
| 6 | High‐resolution in vivo diffusion imaging of the human brain with generalized slice dithered enhanced resolution: Simultaneous multislice (g<scp>S</scp>lider‐<scp>SMS</scp>). Magnetic Resonance in Medicine, 2018, 79, 141-151. | 3.0 | 134 |
| 7 | Functional Consequences of Neurite Orientation Dispersion and Density in Humans across the Adult Lifespan. Journal of Neuroscience, 2015, 35, 1753-1762. | 3.6 | 120 |
| 8 | Variability and anatomical specificity of the orbitofrontothalamic fibers of passage in the ventral capsule/ventral striatum (VC/VS): precision care for patient-specific tractography-guided targeting of deep brain stimulation (DBS) in obsessive compulsive disorder (OCD). Brain Imaging and Behavior, 2016, 10, 1054-1067. | 2.1 | 115 |
| 9 | Retrospective harmonization of multi-site diffusion MRI data acquired with different acquisition parameters. NeuroImage, 2019, 184, 180-200. | 4.2 | 115 |
| 10 | White matter abnormalities across the lifespan of schizophrenia: a harmonized multi-site diffusion MRI study. Molecular Psychiatry, 2020, 25, 3208-3219. | 7.9 | 115 |
| 11 | Automated white matter fiber tract identification in patients with brain tumors. NeuroImage: Clinical, 2017, 13, 138-153. | 2.7 | 109 |
| 12 | Increased Gray Matter Diffusion Anisotropy in Patients with Persistent Post-Concussive Symptoms following Mild Traumatic Brain Injury. PLoS ONE, 2013, 8, e66205. | 2.5 | 89 |
| 13 | SlicerDMRI: Open Source Diffusion MRI Software for Brain Cancer Research. Cancer Research, 2017, 77, e101-e103. | 0.9 | 89 |
| 14 | Sparse Reconstruction Challenge for diffusion MRI: Validation on a physical phantom to determine which acquisition scheme and analysis method to use?. Medical Image Analysis, 2015, 26, 316-331. | 11.6 | 78 |
| 15 | Individual deviations from normative models of brain structure in a large cross-sectional schizophrenia cohort. Molecular Psychiatry, 2021, 26, 3512-3523. | 7.9 | 78 |
| 16 | Whole brain white matter connectivity analysis using machine learning: An application to autism. NeuroImage, 2018, 172, 826-837. | 4.2 | 70 |
| 17 | Test–retest reproducibility of white matter parcellation using diffusion MRI tractography fiber clustering. Human Brain Mapping, 2019, 40, 3041-3057. | 3.6 | 61 |
| 18 | Reconstruction of the arcuate fasciculus for surgical planning in the setting of peritumoral edema using two-tensor unscented Kalman filter tractography. NeuroImage: Clinical, 2015, 7, 815-822. | 2.7 | 60 |

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|---|---------|-----|-----------|
| 19 | Reduced Structural Connectivity in Frontostriatal White Matter Tracts in the Associative Loop in Schizophrenia. American Journal of Psychiatry, 2017, 174, 1102-1111. | 7.2 | 60 |
| 20 | Estimating Diffusion Propagator and Its Moments Using Directional Radial Basis Functions. IEEE Transactions on Medical Imaging, 2015, 34, 2058-2078. | 8.9 | 59 |
| 21 | Deep white matter analysis (DeepWMA): Fast and consistent tractography segmentation. Medical Image Analysis, 2020, 65, 101761. | 11.6 | 57 |
| 22 | Joint Multi-Fiber NODDI Parameter Estimation and Tractography Using the Unscented Information Filter. Frontiers in Neuroscience, 2016, 10, 166. | 2.8 | 56 |
| 23 | Cross-scanner and cross-protocol multi-shell diffusion MRI data harmonization: Algorithms and results. NeuroImage, 2020, 221, 117128. | 4.2 | 54 |
| 24 | SlicerDMRI: Diffusion MRI and Tractography Research Software for Brain Cancer Surgery Planning and Visualization. JCO Clinical Cancer Informatics, 2020, 4, 299-309. | 2.1 | 52 |
| 25 | A joint compressed-sensing and super-resolution approach for very high-resolution diffusion imaging. NeuroImage, 2016, 125, 386-400. | 4.2 | 49 |
| 26 | Directional functions for orientation distribution estimation. Medical Image Analysis, 2009, 13, 432-444. | 11.6 | 47 |
| 27 | Large-Scale Evidence for an Association Between Peripheral Inflammation and White Matter Free Water in Schizophrenia and Healthy Individuals. Schizophrenia Bulletin, 2021, 47, 542-551. | 4.3 | 47 |
| 28 | Longitudinal diffusion changes in prodromal and early <scp>HD</scp>: Evidence of white‐matter tract deterioration. Human Brain Mapping, 2017, 38, 1460-1477. | 3.6 | 45 |
| 29 | Limits and reproducibility of resting-state functional MRI definition of DLPFC targets for neuromodulation. Brain Stimulation, 2019, 12, 129-138. | 1.6 | 45 |
| 30 | Corticospinal tract modeling for neurosurgical planning by tracking through regions of peritumoral edema and crossing fibers using two-tensor unscented Kalman filter tractography. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1475-1486. | 2.8 | 42 |
| 31 | Free water modeling of peritumoral edema using multi-fiber tractography: Application to tracking the arcuate fasciculus for neurosurgical planning. PLoS ONE, 2018, 13, e0197056. | 2.5 | 40 |
| 32 | Cerebral white matter abnormalities and their associations with negative but not positive symptoms of schizophrenia. Psychiatry Research - Neuroimaging, 2014, 222, 52-59. | 1.8 | 39 |
| 33 | Sparse Multi-Shell Diffusion Imaging. Lecture Notes in Computer Science, 2011, 14, 58-65. | 1.3 | 38 |
| 34 | Performance of unscented Kalman filter tractography in edema: Analysis of the two-tensor model. NeuroImage: Clinical, 2017, 15, 819-831. | 2.7 | 37 |
| 35 | Investigation into local white matter abnormality in emotional processing and sensorimotor areas using an automatically annotated fiber clustering in major depressive disorder. NeuroImage, 2018, 181, 16-29. | 4.2 | 34 |
| 36 | Statistical analysis of fiber bundles using multi-tensor tractography: application to first-episode schizophrenia. Magnetic Resonance Imaging, 2011, 29, 507-515. | 1.8 | 33 |

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|---|---------|-----|-----------|
| 37 | Detecting microstructural white matter abnormalities of frontal pathways in children with ADHD using advanced diffusion models. Brain Imaging and Behavior, 2020, 14, 981-997. | 2.1 | 29 |
| 38 | Cell type-specific manifestations of cortical thickness heterogeneity in schizophrenia. Molecular Psychiatry, 2022, 27, 2052-2060. | 7.9 | 29 |
| 39 | The social brain network in 22q11.2 deletion syndrome: a diffusion tensor imaging study. Behavioral and Brain Functions, 2017, 13, 4. | 3.3 | 28 |
| 40 | Altered Cellular White Matter But Not Extracellular Free Water on Diffusion MRI in Individuals at Clinical High Risk for Psychosis. American Journal of Psychiatry, 2019, 176, 820-828. | 7.2 | 28 |
| 41 | High‐fidelity, accelerated whole‐brain submillimeter in vivo diffusion MRI using gSlider‐spherical ridgelets (gSlider‐SR). Magnetic Resonance in Medicine, 2020, 84, 1781-1795. | 3.0 | 28 |
| 42 | Diagnostic value of structural and diffusion imaging measures in schizophrenia. NeuroImage: Clinical, 2018, 18, 467-474. | 2.7 | 27 |
| 43 | Suprathreshold fiber cluster statistics: Leveraging white matter geometry to enhance tractography statistical analysis. NeuroImage, 2018, 171, 341-354. | 4.2 | 26 |
| 44 | Cumulant expansions for measuring water exchange using diffusion MRI. Journal of Chemical Physics, 2018, 148, 074109. | 3.0 | 26 |
| 45 | Impaired white matter connectivity between regions containing mirror neurons, and relationship to negative symptoms and social cognition, in patients with first-episode schizophrenia. Brain Imaging and Behavior, 2018, 12, 229-237. | 2.1 | 26 |
| 46 | Anatomical assessment of trigeminal nerve tractography using diffusion MRI: A comparison of acquisition b-values and single- and multi-fiber tracking strategies. NeuroImage: Clinical, 2020, 25, 102160. | 2.7 | 25 |
| 47 | Mild traumatic brain injury impacts associations between limbic system microstructure and post-traumatic stress disorder symptomatology. NeuroImage: Clinical, 2020, 26, 102190. | 2.7 | 24 |
| 48 | Fusion of white and gray matter geometry: A framework for investigating brain development. Medical Image Analysis, 2014, 18, 1349-1360. | 11.6 | 22 |
| 49 | Abnormal asymmetry of white matter tracts between ventral posterior cingulate cortex and middle temporal gyrus in recent-onset schizophrenia. Schizophrenia Research, 2018, 192, 159-166. | 2.0 | 22 |
| 50 | Diffusion Propagator Estimation from Sparse Measurements in a Tractography Framework. Lecture Notes in Computer Science, 2013, 16, 510-517. | 1.3 | 22 |
| 51 | Patient-specific connectomic models correlate with, but do not reliably predict, outcomes in deep brain stimulation for obsessive-compulsive disorder. Neuropsychopharmacology, 2022, 47, 965-972. | 5.4 | 22 |
| 52 | Comparison of multiple tractography methods for reconstruction of the retinogeniculate visual pathway using diffusion MRI. Human Brain Mapping, 2021, 42, 3887-3904. | 3.6 | 21 |
| 53 | The use of hydrogel-delivered extracellular vesicles in recovery of motor function in stroke: a testable experimental hypothesis for clinical translation including behavioral and neuroimaging assessment approaches. Neural Regeneration Research, 2021, 16, 605. | 3.0 | 20 |
| 54 | Diffusion imaging of mild traumatic brain injury in the impact accelerated rodent model: A pilot study. Brain Injury, 2017, 31, 1376-1381. | 1.2 | 19 |

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|---|---------|-----|-----------|
| 55 | Investigating Sexual Dimorphism of Human White Matter in a Harmonized, Multisite Diffusion Magnetic Resonance Imaging Study. Cerebral Cortex, 2021, 31, 201-212. | 2.9 | 19 |
| 56 | Improving the predictive potential of diffusion <scp>MRI</scp> in schizophrenia using normative modelsâ€"Towards subjectâ€level classification. Human Brain Mapping, 2021, 42, 4658-4670. | 3.6 | 18 |
| 57 | White matter association tracts underlying language and theory of mind: An investigation of 809 brains from the Human Connectome Project. NeuroImage, 2022, 246, 118739. | 4.2 | 18 |
| 58 | Precise Inference and Characterization of Structural Organization (PICASO) of tissue from molecular diffusion. NeuroImage, 2017, 146, 452-473. | 4.2 | 17 |
| 59 | Harmonizing Diffusion MRI Data Across Magnetic Field Strengths. Lecture Notes in Computer Science, 2018, , 116-124. | 1.3 | 17 |
| 60 | Creation of a novel trigeminal tractography atlas for automated trigeminal nerve identification. NeuroImage, 2020, 220, 117063. | 4.2 | 17 |
| 61 | Elucidating the relationship between white matter structure, demographic, and clinical variables in schizophreniaâ€"a multicenter harmonized diffusion tensor imaging study. Molecular Psychiatry, 2021, 26, 5357-5370. | 7.9 | 17 |
| 62 | Alteration of gray matter microstructure in schizophrenia. Brain Imaging and Behavior, 2018, 12, 54-63. | 2.1 | 16 |
| 63 | Image Registration to Compensate for EPI Distortion in Patients with Brain Tumors: An Evaluation of Tractâ€Specific Effects. Journal of Neuroimaging, 2018, 28, 173-182. | 2.0 | 15 |
| 64 | White matter changes in psychosis risk relate to development and are not impacted by the transition to psychosis. Molecular Psychiatry, 2021, 26, 6833-6844. | 7.9 | 15 |
| 65 | Individual variations of the human corticospinal tract and its hand-related motor fibers using diffusion MRI tractography. Brain Imaging and Behavior, 2020, 14, 696-714. | 2.1 | 14 |
| 66 | Genetic load determines atrophy in hand corticoâ€striatal pathways in presymptomatic Huntington's disease. Human Brain Mapping, 2018, 39, 3871-3883. | 3.6 | 13 |
| 67 | 3D Exploration of the Brainstem in 50-Micron Resolution MRI. Frontiers in Neuroanatomy, 2020, 14, 40. | 1.7 | 13 |
| 68 | SNRâ€enhanced diffusion MRI with structureâ€preserving lowâ€rank denoising in reproducing kernel Hilbert spaces. Magnetic Resonance in Medicine, 2021, 86, 1614-1632. | 3.0 | 13 |
| 69 | Biomarkers for Identifying First-Episode Schizophrenia Patients Using Diffusion Weighted Imaging. Lecture Notes in Computer Science, 2010, 13, 657-665. | 1.3 | 13 |
| 70 | White matter markers and predictors for subject-specific rTMS response in major depressive disorder. Journal of Affective Disorders, 2022, 299, 207-214. | 4.1 | 13 |
| 71 | Serum Neurosteroid Levels Are Associated With Cortical Thickness in Individuals Diagnosed With Posttraumatic Stress Disorder and History of Mild Traumatic Brain Injury. Clinical EEG and Neuroscience, 2020, 51, 285-299. | 1.7 | 12 |
| 72 | Miswiring of Frontostriatal Projections in Schizophrenia. Schizophrenia Bulletin, 2020, 46, 990-998. | 4.3 | 12 |

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| 73 | How Human Is Human Connectional Neuroanatomy?. Frontiers in Neuroanatomy, 2020, 14, 18. | 1.7 | 12 |
| 74 | Affine Registration of label maps in Label Space. Journal of Computing, 2010, 2, 1-11. | 2.0 | 12 |
| 75 | New insights about time-varying diffusivity and its estimation from diffusion MRI. Magnetic Resonance in Medicine, 2017, 78, 763-774. | 3.0 | 11 |
| 76 | Rapid whole-brain electric field mapping in transcranial magnetic stimulation using deep learning. PLoS ONE, 2021, 16, e0254588. | 2.5 | 11 |
| 77 | Fast approximate surface evolution in arbitrary dimension. , 2008, 6914, . | | 10 |
| 78 | Abnormalities in gray matter microstructure in young adults with 22q11.2 deletion syndrome. NeuroImage: Clinical, 2019, 21, 101611. | 2.7 | 10 |
| 79 | Network Analysis of Symptom Comorbidity in Schizophrenia: Relationship to Illness Course and Brain White Matter Microstructure. Schizophrenia Bulletin, 2021, 47, 1156-1167. | 4.3 | 10 |
| 80 | Deep White Matter Analysis: Fast, Consistent Tractography Segmentation Across Populations and dMRI Acquisitions. Lecture Notes in Computer Science, 2019, 11766, 599-608. | 1.3 | 10 |
| 81 | A full bi-tensor neural tractography algorithm using the unscented Kalman filter. Eurasip Journal on Advances in Signal Processing, 2011, 2011, . | 1.7 | 9 |
| 82 | Probabilistic tractographyâ€based thalamic parcellation in healthy newborns and newborns with congenital heart disease. Journal of Magnetic Resonance Imaging, 2018, 47, 1626-1637. | 3.4 | 8 |
| 83 | MRI-based Parcellation and Morphometry of the Individual Rhesus Monkey Brain: the macaque Harvard-Oxford Atlas (mHOA), a translational system referencing a standardized ontology. Brain Imaging and Behavior, 2021, 15, 1589-1621. | 2.1 | 8 |
| 84 | Quantifying Genetic and Environmental Influence on Gray Matter Microstructure Using Diffusion MRI. Cerebral Cortex, 2020, 30, 6191-6205. | 2.9 | 8 |
| 85 | On approximation of orientation distributions by means of spherical ridgelets. , 2008, , . | | 7 |
| 86 | Tensor kernels for simultaneous fiber model estimation and tractography. Magnetic Resonance in Medicine, 2010, 64, 138-148. | 3.0 | 7 |
| 87 | Neurocognitive markers of childhood abuse in individuals with PTSD: Findings from the INTRuST Clinical Consortium. Journal of Psychiatric Research, 2020, 121, 108-117. | 3.1 | 7 |
| 88 | Microstructural Changes in the Left Mesocorticolimbic Pathway are Associated with the Comorbid Development of Fatigue and Depression in Multiple Sclerosis. Journal of Neuroimaging, 2021, 31, 501-507. | 2.0 | 7 |
| 89 | Sex-Related Differences in White Matter Asymmetry and Its Implications for Verbal Working Memory in Psychosis High-Risk State. Frontiers in Psychiatry, 2021, 12, 686967. | 2.6 | 7 |
| 90 | Exposure to Repetitive Head Impacts Is Associated With Corpus Callosum Microstructure and Plasma Total Tau in Former Professional American Football Players. Journal of Magnetic Resonance Imaging, 2021, 54, 1819-1829. | 3.4 | 7 |

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|---|---------|----|-----------|
| 91 | Supwma: Consistent and Efficient Tractography Parcellation of Superficial White Matter with Deep Learning. , 2022, , . | | 7 |
| 92 | Microstructural alterations in medial forebrain bundle are associated with <scp>interindividual</scp> pain sensitivity. Human Brain Mapping, 2021, 42, 1130-1137. | 3.6 | 6 |
| 93 | Probing tissue microstructure by diffusion skewness tensor imaging. Scientific Reports, 2021, 11, 135. | 3.3 | 6 |
| 94 | Accelerated diffusion and relaxation–diffusion MRI using time–division multiplexing EPI. Magnetic Resonance in Medicine, 2021, 86, 2528-2541. | 3.0 | 6 |
| 95 | Orientation distribution estimation for Q-ball imaging. , 2008, , . | | 5 |
| 96 | Sparse deconvolution of higher order tensor for fiber orientation distribution estimation. Artificial Intelligence in Medicine, 2015, 65, 229-238. | 6.5 | 5 |
| 97 | Automated connectivity-based groupwise cortical atlas generation: Application to data of neurosurgical patients with brain tumors for cortical parcellation prediction. , 2017, , . | | 5 |
| 98 | Model and Predict Age and Sex in Healthy Subjects Using Brain White Matter Features: A Deep Learning Approach. , 2022, , . | | 4 |
| 99 | Directional functions for orientation distribution estimation. , 2008, , . | | 3 |
| 100 | Estimation of Bounded and Unbounded Trajectories in Diffusion MRI. Frontiers in Neuroscience, 2016, 10, 129. | 2.8 | 3 |
| 101 | FiberStars: Visual Comparison of Diffusion Tractography Data between Multiple Subjects. , 2021, , . | | 3 |
| 102 | TRAKO: Efficient Transmission of Tractography Data for Visualization. Lecture Notes in Computer Science, 2020, 12267, 322-332. | 1.3 | 3 |
| 103 | Accelerating joint relaxation–diffusion MRI by integrating time division multiplexing and simultaneous multi–slice (TDM–SMS) strategies. Magnetic Resonance in Medicine, 2022, 87, 2697-2709. | 3.0 | 3 |
| 104 | Superficial white matter microstructure affects processing speed in cerebral small vessel disease. Human Brain Mapping, 2022, 43, 5310-5325. | 3.6 | 3 |
| 105 | Spatially regularized q-ball imaging using spherical ridgelets. , 2010, , . | | 2 |
| 106 | Combining Surface and Fiber Geometry: An Integrated Approach to Brain Morphology. Lecture Notes in Computer Science, 2013, 16, 50-57. | 1.3 | 2 |
| 107 | Disease classification: A probabilistic approach. , 2010, , . | | 1 |
| 108 | A swarm tracking approach for stochastic white matter tractography. , 2011, , . | | 1 |

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| 109 | Fiber feature map based landmark initialization for highly deformable DTI registration. , 2013, 8669, . | | 1 |
| 110 | Diffusion Magnetic Resonance Imaging Advances the Study of Nuclei-Specific Thalamocortical Connectivity in Early Stage Psychosis. Biological Psychiatry, 2019, 85, 10-12. | 1.3 | 1 |
| 111 | Compressed sensing of diffusion MRI data using spatial regularization and positivity constraints. , 2011, , . | | 0 |
| 112 | T201. THE STUDY OF WHITE MATTER MATURATION IN THREE POPULATIONS OF GENETIC HIGH RISK FOR SCHIZOPHRENIA INDIVIDUALS SPANNING THE DEVELOPMENTAL TIMELINE. Schizophrenia Bulletin, 2018, 44, S194-S195. | 4.3 | 0 |
| 113 | O7.1. ABNORMAL DEVELOPMENT, FAULTY MATURATION OR ACCELERATED AGING? â€œWHITE MATTER AT THE CENTER STAGE OF SCHIZOPHRENIAâ€•REVISITED. Schizophrenia Bulletin, 2019, 45, S178-S179. | 4.3 | 0 |
| 114 | S157. A MULTICENTER HARMONIZED DIFFUSION TENSOR IMAGING STUDY ON THE ASSOCIATION OF WHITE MATTER STRUCTURE AND CLINICAL FUNCTIONING. Schizophrenia Bulletin, 2020, 46, S95-S96. | 4.3 | 0 |
| 115 | O5.6. ADVANCED DIFFUSION IMAGING IN PSYCHOSIS RISK: A CROSS-SECTIONAL AND LONGITUDINAL STUDY OF WHITE MATTER DEVELOPMENT. Schizophrenia Bulletin, 2020, 46, S13-S13. | 4.3 | 0 |