# Rachel Sparks

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7924920/publications.pdf

Version: 2024-02-01

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|---|---|---|---|
| 65 papers | 1,249 citations | 430442 18 h-index | 395343 33 g-index |
| 65 all docs | 65 docs citations | 65 times ranked | 1534 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Intraoperative overlay of optic radiation tractography during anteromesial temporal resection: a prospective validation study. Journal of Neurosurgery, 2022, 136, 543-552. | 0.9 | 4 |
| 2 | Informative and Reliable Tract Segmentation for Preoperative Planning. Frontiers in Radiology, 2022, 2, . | 1.2 | 2 |
| 3 | Probabilistic landscape of seizure semiology localizing values. Brain Communications, 2022, 4, . | 1.5 | 7 |
| 4 | 012â€... Structural connectivity informed stereoelectroencephalography (SEEG) electrode targeting in suspected pseudotemporal and temporal plus epilepsy. Journal of Neurology, Neurosurgery and Psychiatry, 2022, 93, A104.3-A104. | 0.9 | 0 |
| 5 | Brainâ€“Machine Interfaces: The Role of the Neurosurgeon. World Neurosurgery, 2021, 146, 140-147. | 0.7 | 15 |
| 6 | A generative model of hyperelastic strain energy density functions for multiple tissue brain deformation. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 141-150. | 1.7 | 2 |
| 7 | Transfer Learning of Deep Spatiotemporal Networks to Model Arbitrarily Long Videos of Seizures. Lecture Notes in Computer Science, 2021, , 334-344. | 1.0 | 6 |
| 8 | Machine Learning for Localizing Epileptogenic-Zone in the Temporal Lobe: Quantifying the Value of Multimodal Clinical-Semiology and Imaging Concordance. Frontiers in Digital Health, 2021, 3, 559103. | 1.5 | 9 |
| 9 | Patient-specific prediction of SEEG electrode bending for stereotactic neurosurgical planning. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 789-798. | 1.7 | 4 |
| 10 | A self-supervised learning strategy for postoperative brain cavity segmentation simulating resections. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 1653-1661. | 1.7 | 5 |
| 11 | Occipitocervical instrumented fixation utilising patient-specific C2 3D-printed spinal screw trajectory guides in complex paediatric skeletal dysplasia. Child's Nervous System, 2021, 37, 2643-2650. | 0.6 | 2 |
| 12 | Comparison of robotic and manual implantation of intracerebral electrodes: a single-centre, single-blinded, randomised controlled trial. Scientific Reports, 2021, 11, 17127. | 1.6 | 19 |
| 13 | Enhancing the estimation of fiber orientation distributions using convolutional neural networks. Computers in Biology and Medicine, 2021, 135, 104643. | 3.9 | 10 |
| 14 | TorchIO: A Python library for efficient loading, preprocessing, augmentation and patch-based sampling of medical images in deep learning. Computer Methods and Programs in Biomedicine, 2021, 208, 106236. | 2.6 | 257 |
| 15 | Correction to: Transfer Learning of Deep Spatiotemporal Networks to Model Arbitrarily Long Videos of Seizures. Lecture Notes in Computer Science, 2021, , C1-C1. | 1.0 | 1 |
| 16 | Automated computation and analysis of accuracy metrics in stereoencephalography. Journal of Neuroscience Methods, 2020, 340, 108710. | 1.3 | 3 |
| 17 | Towards Uncertainty Quantification for Electrode Bending Prediction in Stereotactic Neurosurgery. , 2020, , . | | 2 |
| 18 | Computer-assisted planning for minimally invasive anterior two-thirds laser corpus callosotomy: A feasibility study with probabilistic tractography validation. NeuroImage: Clinical, 2020, 25, 102174. | 1.4 | 8 |

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|---|---|---|---|
| 19 | Convolutional Neural Networks for Fiber Orientation Distribution Enhancement toÂImprove Single-Shell Diffusion MRI Tractography. Mathematics and Visualization, 2020, , 101-112. | 0.4 | 3 |
| 20 | Simulation of Brain Resection for Cavity Segmentation Using Self-supervised and Semi-supervised Learning. Lecture Notes in Computer Science, 2020, , 115-125. | 1.0 | 5 |
| 21 | Computer-Assisted Versus Manual Planning for Stereotactic Brain Biopsy: A Retrospective Comparative Pilot Study. Operative Neurosurgery, 2020, 18, 417-422. | 0.4 | 8 |
| 22 | Multicenter validation of automated trajectories for selective laser amygdalohippocampectomy. Epilepsia, 2019, 60, 1949-1959. | 2.6 | 15 |
| 23 | Stereoelectroencephalography electrode placement: Detection of blood vessel conflicts. Epilepsia, 2019, 60, 1942-1948. | 2.6 | 19 |
| 24 | Computer-Assisted Planning for Stereoelectroencephalography (SEEG). Neurotherapeutics, 2019, 16, 1183-1197. | 2.1 | 16 |
| 25 | The Effect of Vascular Segmentation Methods on Stereotactic Trajectory Planning for Drug-Resistant Focal Epilepsy: A Retrospective Cohort Study. World Neurosurgery: X, 2019, 4, 100057. | 0.6 | 10 |
| 26 | Automated fiber tract reconstruction for surgery planning: Extensive validation in language-related white matter tracts. NeuroImage: Clinical, 2019, 23, 101883. | 1.4 | 19 |
| 27 | Association of Piriform Cortex Resection With Surgical Outcomes in Patients With Temporal Lobe Epilepsy. JAMA Neurology, 2019, 76, 690. | 4.5 | 69 |
| 28 | Optimizing Trajectories for Cranial Laser Interstitial Thermal Therapy Using Computer-Assisted Planning: A Machine Learning Approach. Neurotherapeutics, 2019, 16, 182-191. | 2.1 | 27 |
| 29 | A Generative Model of Hyperelastic Strain Energy Density Functions for Real-Time Simulation of Brain Tissue Deformation. Lecture Notes in Computer Science, 2019, , 218-226. | 1.0 | 1 |
| 30 | Improving patient safety during introduction of novel medical devices through cumulative summation analysis. Journal of Neurosurgery, 2018, 130, 213-219. | 0.9 | 11 |
| 31 | Automated trajectory planning for laser interstitial thermal therapy in mesial temporal lobe epilepsy. Epilepsia, 2018, 59, 814-824. | 2.6 | 52 |
| 32 | A Machine Learning Approach to Predict Instrument Bending in Stereotactic Neurosurgery. Lecture Notes in Computer Science, 2018, , 238-246. | 1.0 | 3 |
| 33 | Automatic segmentation of stereoelectroencephalography (SEEG) electrodes post-implantation considering bending. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 935-946. | 1.7 | 24 |
| 34 | Computer-assisted planning for the insertion of stereoelectroencephalography electrodes for the investigation of drug-resistant focal epilepsy: an external validation study. Journal of Neurosurgery, 2018, , 1-10. | 0.9 | 33 |
| 35 | Accuracy of intracranial electrode placement for stereoelectroencephalography: A systematic review and metaâ€analysis. Epilepsia, 2017, 58, 921-932. | 2.6 | 124 |
| 36 | Connecting Markov random fields and active contour models: application to gland segmentation and classification. Journal of Medical Imaging, 2017, 4, 021107. | 0.8 | 4 |

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|---|---|---|---|
| 37 | Resection planning in extratemporal epilepsy surgery using 3D multimodality imaging and intraoperative MRI. British Journal of Neurosurgery, 2017, 31, 468-470. | 0.4 | 11 |
| 38 | Anatomy-driven multiple trajectory planning (ADMTP) of intracranial electrodes for epilepsy surgery. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1245-1255. | 1.7 | 34 |
| 39 | Automated multiple trajectory planning algorithm for the placement of stereo-electroencephalography (SEEG) electrodes in epilepsy treatment. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 123-136. | 1.7 | 37 |
| 40 | Out-of-Sample Extrapolation utilizing Semi-Supervised Manifold Learning (OSE-SSL): Content Based Image Retrieval for Histopathology Images. Scientific Reports, 2016, 6, 27306. | 1.6 | 18 |
| 41 | A Pipeline for 3D Multimodality Image Integration and Computer-assisted Planning in Epilepsy Surgery. Journal of Visualized Experiments, 2016, , . | 0.2 | 11 |
| 42 | A crowdsourcing approach for reusing and meta-analyzing gene expression data. Nature Biotechnology, 2016, 34, 803-806. | 9.4 | 32 |
| 43 | Comparison of computer-assisted planning and manual planning for depth electrode implantations in epilepsy. Journal of Neurosurgery, 2016, 124, 1820-1828. | 0.9 | 31 |
| 44 | Efficient Anatomy Driven Automated Multiple Trajectory Planning for Intracranial Electrode Implantation. Lecture Notes in Computer Science, 2016, , 542-550. | 1.0 | 2 |
| 45 | Utility of 3D multimodality imaging in the implantation ofÂintracranial electrodes in epilepsy. Epilepsia, 2015, 56, 403-413. | 2.6 | 50 |
| 46 | Multiattribute probabilistic prostate elastic registration (MAPPER): Application to fusion of ultrasound and magnetic resonance imaging. Medical Physics, 2015, 42, 1153-1163. | 1.6 | 12 |
| 47 | Co-Occurring Gland Angularity in Localized Subgraphs: Predicting Biochemical Recurrence in Intermediate-Risk Prostate Cancer Patients. PLoS ONE, 2014, 9, e97954. | 1.1 | 53 |
| 48 | Spatially aware expectation maximization (SpAEM): application to prostate TRUS segmentation. Proceedings of SPIE, 2014, , . | 0.8 | 0 |
| 49 | Spectral embedding-based registration (SERg) for multimodal fusion of prostate histology and MRI. , 2014, , . | | 1 |
| 50 | Intense focused ultrasound stimulation can safely stimulate inflamed subcutaneous tissue and assess allodynia. Journal of Therapeutic Ultrasound, 2014, 2, 8. | 2.2 | 6 |
| 51 | Statistical shape model for manifold regularization: Gleason grading of prostate histology. Computer Vision and Image Understanding, 2013, 117, 1138-1146. | 3.0 | 31 |
| 52 | Co-occurring gland tensors in localized cluster graphs: Quantitative histomorphometry for predicting biochemical recurrence for intermediate grade prostate cancer. , 2013, , . | | 3 |
| 53 | Neuropathic Tissue Responds Preferentially to Stimulation by Intense Focused Ultrasound. Ultrasound in Medicine and Biology, 2013, 39, 111-116. | 0.7 | 16 |
| 54 | Fully automated prostate magnetic resonance imaging and transrectal ultrasound fusion via a probabilistic registration metric. , 2013, 8671, . | | 15 |

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|---|---|---|---|
| 55 | Explicit shape descriptors: Novel morphologic features for histopathology classification. Medical Image Analysis, 2013, 17, 997-1009. | 7.0 | 40 |
| 56 | Identifying in vivo DCE MRI parameters correlated with ex vivo quantitative microvessel architecture: A radiohistomorphometric approach. , 2013, , . | | 3 |
| 57 | Anisotropic smoothing regularization (AnSR) in Thirion's Demons registration evaluates brain MRI tissue changes post-laser ablation. , 2013, 2013, 4006-9. | | 5 |
| 58 | Gleason grading of prostate histology utilizing manifold regularization via statistical shape model of manifolds. , 2012, , . | | 6 |
| 59 | Medial axis based statistical shape model (MASSM): Applications to 3D prostate segmentation on MRI. , 2011, , . | | 1 |
| 60 | Segmentation of nodular medulloblastoma using Random Walker and Hierarchical Normalized Cuts. , 2011, , . | | 6 |
| 61 | Out-of-sample extrapolation using semi-supervised manifold learning (OSE-SSL): Content-based image retrieval for prostate histology grading. , 2011, , . | | 1 |
| 62 | Content-based image retrieval utilizing explicit shape descriptors: applications to breast MRI and prostate histopathology. Proceedings of SPIE, 2011, , . | 0.8 | 2 |
| 63 | An integrated framework for analyzing three-dimensional shape differences: Evaluating prostate morphometry. , 2010, , . | | 1 |
| 64 | Novel Morphometric Based Classification via Diffeomorphic Based Shape Representation Using Manifold Learning. Lecture Notes in Computer Science, 2010, 13, 658-665. | 1.0 | 12 |
| 65 | High-Throughput Prostate Cancer Gland Detection, Segmentation, and Classification from Digitized Needle Core Biopsies. Lecture Notes in Computer Science, 2010, , 77-88. | 1.0 | 10 |