Mert Rory Sabuncu

List of Publications by Year
in descending order

107 papers	17,883 citations	57631 44 h-index	34900 98 g-index
126 all docs	126 docs citations	126 times ranked	19263 citing authors

#	Article	IF	Citations
1	The organization of the human cerebral cortex estimated by intrinsic functional connectivity. Journal of Neurophysiology, 2011, 106, 1125-1165.	0.9	6,420
2	The influence of head motion on intrinsic functional connectivity MRI. NeuroImage, 2012, 59, 431-438.	2.1	2,209
3	Individual Variability in Functional Connectivity Architecture of the Human Brain. Neuron, 2013, 77, 586-595.	3.8	949
4	Multi-atlas segmentation of biomedical images: A survey. Medical Image Analysis, 2015, 24, 205-219.	7.0	513
5	Spatial Topography of Individual-Specific Cortical Networks Predicts Human Cognition, Personality, and Emotion. Cerebral Cortex, 2019, 29, 2533-2551.	1.6	430
6	A Generative Model for Image Segmentation Based on Label Fusion. IEEE Transactions on Medical Imaging, 2010, 29, 1714-1729.	5.4	423
7	An Unsupervised Learning Model for Deformable Medical Image Registration. , 2018, , .		414
8	Spherical Demons: Fast Diffeomorphic Landmark-Free Surface Registration. IEEE Transactions on Medical Imaging, 2010, 29, 650-668.	5.4	301
9	Statistical analysis of longitudinal neuroimage data with Linear Mixed Effects models. NeuroImage, 2013, 66, 249-260.	2.1	298
10	Global signal regression strengthens association between resting-state functional connectivity and behavior. NeuroImage, 2019, 196, 126-141.	2.1	292
11	The Dynamics of Cortical and Hippocampal Atrophy in Alzheimer Disease. Archives of Neurology, 2011, 68, 1040.	4.9	267
12	Stepwise Connectivity of the Modal Cortex Reveals the Multimodal Organization of the Human Brain. Journal of Neuroscience, 2012, 32, 10649-10661.	1.7	253
13	Resting brain dynamics at different timescales capture distinct aspects of human behavior. Nature Communications, 2019, 10, 2317.	5.8	208
14	Unsupervised learning of probabilistic diffeomorphic registration for images and surfaces. Medical Image Analysis, 2019, 57, 226-236.	7.0	191
15	Phenome-wide heritability analysis of the UK Biobank. PLoS Genetics, 2017, 13, e1006711.	1.5	191
16	A Surface-based Analysis of Language Lateralization and Cortical Asymmetry. Journal of Cognitive Neuroscience, 2013, 25, 1477-1492.	1.1	188
17	Deep neural networks and kernel regression achieve comparable accuracies for functional connectivity prediction of behavior and demographics. NeuroImage, 2020, 206, 116276.	2.1	187
18	Unsupervised Learning for Fast Probabilistic Diffeomorphic Registration. Lecture Notes in Computer Science, 2018, , 729-738.	1.0	178

#	ARTICLE	IF	CITATIONS
19	Polygenic risk of Alzheimer disease is associated with early- and late-life processes. Neurology, 2016, 87, 481-488.	1.5	159
20	Measuring and comparing brain cortical surface area and other areal quantities. NeuroImage, 2012, 61, 1428-1443.	2.1	157
21	Function-based Intersubject Alignment of Human Cortical Anatomy. Cerebral Cortex, 2010, 20, 130-140.	1.6	147
22	The Association between a Polygenic Alzheimer Score and Cortical Thickness in Clinically Normal Subjects. Cerebral Cortex, 2012, 22, 2653-2661.	1.6	145
23	Bayesian model reveals latent atrophy factors with dissociable cognitive trajectories in Alzheimer's disease. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E6535-E6544.	3.3	137
24	Machine learning in resting-state fMRI analysis. Magnetic Resonance Imaging, 2019, 64, 101-121.	1.0	135
25	Clinical Prediction from Structural Brain MRI Scans: A Large-Scale Empirical Study. Neuroinformatics, 2015, 13, 31-46.	1.5	131
26	Subspecialization within default mode nodes characterized in 10,000 UK Biobank participants. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12295-12300.	3.3	125
27	Heritability analysis with repeat measurements and its application to resting-state functional connectivity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5521-5526.	3.3	122
28	Spatiotemporal linear mixed effects modeling for the mass-univariate analysis of longitudinal neuroimage data. NeuroImage, 2013, 81, 358-370.	2.1	111
29	In vivo characterization of the early states of the amyloid-beta network. Brain, 2013, 136, 2239-2252.	3.7	104
30	Joint Analysis of Cortical Area and Thickness as a Replacement for the Analysis of the Volume of the Cerebral Cortex. Cerebral Cortex, 2018, 28, 738-749.	1.6	92
31	A coding variant in CR1 interacts with APOE-É›4 to influence cognitive decline. Human Molecular Genetics, 2012, 21, 2377-2388.	1.4	90
32	Tau and amyloid Î² proteins distinctively associate to functional network changes in the aging brain. Alzheimer's and Dementia, 2017, 13, 1261-1269.	0.4	90
33	Ensemble learning with 3D convolutional neural networks for functional connectome-based prediction. NeuroImage, 2019, 199, 651-662.	2.1	87
34	Effects of registration regularization and atlas sharpness on segmentation accuracy. Medical Image Analysis, 2008, 12, 603-615.	7.0	82
35	Heritability and interindividual variability of regional structure-function coupling. Nature Communications, 2021, 12, 4894.	5.8	79
36	Deep-Learning-Based Optimization of the Under-Sampling Pattern in MRI. IEEE Transactions on Computational Imaging, 2020, 6, 1139-1152.	2.6	74

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37	Dissociable influences of <i>APOE</i> Îμ4 and polygenic risk of AD dementia on amyloid and cognition. Neurology, 2018, 90, e1605-e1612.	1.5	71
38	Massively expedited genome-wide heritability analysis (MEGHA). Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2479-2484.	3.3	69
39	Selective Disruption of the Cerebral Neocortex in Alzheimer's Disease. PLoS ONE, 2010, 5, e12853.	1.1	69
40	Image-Driven Population Analysis Through Mixture Modeling. IEEE Transactions on Medical Imaging, 2009, 28, 1473-1487.	5.4	68
41	Multidimensional heritability analysis of neuroanatomical shape. Nature Communications, 2016, 7, 13291.	5.8	68
42	Identifying Shared Brain Networks in Individuals by Decoupling Functional and Anatomical Variability. Cerebral Cortex, 2016, 26, 4004-4014.	1.6	68
43	The human cortex possesses a reconfigurable dynamic network architecture that is disrupted in psychosis. Nature Communications, 2018, 9, 1157.	5.8	65
44	Deep convolutional neural networks for segmenting 3D in vivo multiphoton images of vasculature in Alzheimer disease mouse models. PLoS ONE, 2019, 14, e0213539.	1.1	60
45	Heritability of individualized cortical network topography. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	59
46	Learning Task-Optimal Registration Cost Functions for Localizing Cytoarchitecture and Function in the Cerebral Cortex. IEEE Transactions on Medical Imaging, 2010, 29, 1424-1441.	5.4	57
47	Using Spanning Graphs for Efficient Image Registration. IEEE Transactions on Image Processing, 2008, 17, 788-797.	6.0	55
48	Morphometricity as a measure of the neuroanatomical signature of a trait. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5749-56.	3.3	53
49	A unified framework for cross-modality multi-atlas segmentation of brain MRI. Medical Image Analysis, 2013, 17, 1181-1191.	7.0	46
50	Machine Learning Methods Predict Individual Upper-Limb Motor Impairment Following Therapy in Chronic Stroke. Neurorehabilitation and Neural Repair, 2020, 34, 428-439.	1.4	43
51	The Relevance Voxel Machine (RVoxM): A Self-Tuning Bayesian Model for Informative Image-Based Prediction. IEEE Transactions on Medical Imaging, 2012, 31, 2290-2306.	5.4	41
52	Diffeomorphic functional brain surface alignment: Functional demons. NeuroImage, 2017, 156, 456-465.	2.1	41
53	Robust Atlas-Based Segmentation of Highly Variable Anatomy: Left Atrium Segmentation. Lecture Notes in Computer Science, 2010, 6364, 85-94.	1.0	41
54	A Unified Framework for MR Based Disease Classification. Lecture Notes in Computer Science, 2009, 21, 300-313.	1.0	39

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55	Consistency Clustering: A Robust Algorithm for Group-wise Registration, Segmentation and Automatic Atlas Construction inÂDiffusion MRI. International Journal of Computer Vision, 2009, 85, 279-290.	10.9	38
56	Multi-modal latent factor exploration of atrophy, cognitive and tau heterogeneity in Alzheimerâ€™s disease. NeuroImage, 2019, 201, 116043.	2.1	38
57	Unsupervised Deep Learning for Bayesian Brain MRI Segmentation. Lecture Notes in Computer Science, 2019, 11766, 356-365.	1.0	38
58	Improved inference in Bayesian segmentation using Monte Carlo sampling: Application to hippocampal subfield volumetry. Medical Image Analysis, 2013, 17, 766-778.	7.0	36
59	Network assemblies in the functional brain. Current Opinion in Neurology, 2012, 25, 1.	1.8	35
60	Medical Image Imputation From Image Collections. IEEE Transactions on Medical Imaging, 2019, 38, 504-514.	5.4	33
61	Fidelity imposed network edit (FINE) for solving ill-posed image reconstruction. NeuroImage, 2020, 211, 116579.	2.1	31
62	Machine Learning Prediction of Stroke Mechanism in Embolic Strokes of Undetermined Source. Stroke, 2020, 51, e203-e210.	1.0	30
63	Discovering Modes of an Image Population through Mixture Modeling. Lecture Notes in Computer Science, 2008, 11, 381-389.	1.0	30
64	On Removing Interpolation and Resampling Artifacts in Rigid Image Registration. IEEE Transactions on Image Processing, 2013, 22, 816-827.	6.0	28
65	Event time analysis of longitudinal neuroimage data. NeuroImage, 2014, 97, 9-18.	2.1	28
66	Cortical response to naturalistic stimuli is largely predictable with deep neural networks. Science Advances, 2021, 7, .	4.7	27
67	Joint Modeling of Imaging and Genetics. Lecture Notes in Computer Science, 2013, 23, 766-777.	1.0	27
68	Asymmetric Image-Template Registration. Lecture Notes in Computer Science, 2009, 12, 565-573.	1.0	26
69	Magnetic Resonance Imaging Radiomicsâ€Based Machine Learning Prediction of Clinically Significant Prostate Cancer in Equivocal <scp>PIâ€RADS</scp> 3 Lesions. Journal of Magnetic Resonance Imaging, 2021, 54, 1466-1473.	1.9	24
70	A kernel machine method for detecting effects of interaction between multidimensional variable sets: An imaging genetics application. NeuroImage, 2015, 109, 505-514.	2.1	23
71	Polygenic Risk of Spasmodic Dysphonia is Associated With Vulnerable Sensorimotor Connectivity. Cerebral Cortex, 2018, 28, 158-166.	1.6	23
72	The Shared Genetic Basis of Educational Attainment and Cerebral Cortical Morphology. Cerebral Cortex, 2019, 29, 3471-3481.	1.6	23

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73	A generative model for multi-atlas segmentation across modalities. , 2012, , 888-891.		21
74	Sex classification using long‑range temporal dependence of resting‑state functional <scp>MRI</scp> time series. Human Brain Mapping, 2020, 41, 3567-3579.	1.9	21
75	The Relevance Voxel Machine (RVoxM): A Bayesian Method for Image-Based Prediction. Lecture Notes in Computer Science, 2011, 14, 99-106.	1.0	19
76	Mid-space-independent deformable image registration. NeuroImage, 2017, 152, 158-170.	2.1	18
77	Is deep learning better than kernel regression for functional connectivity prediction of fluid intelligence?. , 2018, , .		18
78	Example-Based Restoration of High-Resolution Magnetic Resonance Image Acquisitions. Lecture Notes in Computer Science, 2013, 16, 131-138.	1.0	18
79	Genetic variation of oxidative phosphorylation genes in stroke and Alzheimer's disease. Neurobiology of Aging, 2014, 35, 1956.e1-1956.e8.	1.5	17
80	Population Based Image Imputation. Lecture Notes in Computer Science, 2017, 10265, 659-671.	1.0	17
81	An algorithm for optimal fusion of atlases with different labeling protocols. NeuroImage, 2015, 106, 451-463.	2.1	16
82	Image Registration in Medical Robotics and Intelligent Systems: Fundamentals and Applications. Advanced Intelligent Systems, 2019, 1, 1900048.	3.3	13
83	A Generative Model for Probabilistic Label Fusion of Multimodal Data. Lecture Notes in Computer Science, 2012, 7509, 115-133.	1.0	12
84	Predicting individual task contrasts from resting‑state functional connectivity using a surface‑based convolutional network. NeuroImage, 2022, 248, 118849.	2.1	12
85	Neural Network-Based Reconstruction in Compressed Sensing MRI Without Fully-Sampled Training Data. Lecture Notes in Computer Science, 2020, , 27-37.	1.0	10
86	NeuroGen: Activation optimized image synthesis for discovery neuroscience. NeuroImage, 2022, 247, 118812.	2.1	10
87	Machine Learning Enables High-Throughput Phenotyping for Analyses of the Genetic Architecture of Bulliform Cell Patterning in Maize. G3: Genes, Genomes, Genetics, 2019, 9, 4235-4243.	0.8	9
88	Avoiding symmetry-breaking spatial non-uniformity in deformable image registration via a quasi-volume-preserving constraint. NeuroImage, 2015, 106, 238-251.	2.1	8
89	A Cautionary Analysis of STAPLE Using Direct Inference of Segmentation Truth. Lecture Notes in Computer Science, 2014, 17, 398-406.	1.0	8
90	Volumetric Landmark Detection with a Multi-Scale Shift Equivariant Neural Network. , 2020, , .		6

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91	A Universal and Efficient Method to Compute Maps from Image-Based Prediction Models. Lecture Notes in Computer Science, 2014, 17, 353-360.	1.0	6
92	Supervised Nonparametric Image Parcellation. Lecture Notes in Computer Science, 2009, 12, 1075-1083.	1.0	6
93	Symmetric non-rigid image registration via an adaptive quasi-volume-preserving constraint. , 2013, 2013, 230-233.		5
94	Learning Conditional Deformable Shape Templates for Brain Anatomy. Lecture Notes in Computer Science, 2020, , 353-362.	1.0	5
95	Image-driven population analysis through mixture modeling. , 2009, , .		3
96	Analysis of Surfaces Using Constrained Regression Models. Lecture Notes in Computer Science, 2008, 11, 842-849.	1.0	3
97	Nonparametric Mixture Models for Supervised Image Parcellation. , 2009, 12, 301-313.		3
98	A Robust Algorithm for Fiber-Bundle Atlas Construction. , 2007, , .		2
99	Predictive Modeling of Anatomy with Genetic and Clinical Data. Lecture Notes in Computer Science, 2015, 9351, 519-526.	1.0	2
100	Mid-Space-Independent Symmetric Data Term for Pairwise Deformable Image Registration. Lecture Notes in Computer Science, 2015, 9350, 263-271.	1.0	1
101	A Probabilistic, Non-parametric Framework for Inter-modality Label Fusion. Lecture Notes in Computer Science, 2013, 16, 576-583.	1.0	1
102	On Feature Relevance in Image-Based Prediction Models: An Empirical Study. Lecture Notes in Computer Science, 2013, , 171-178.	1.0	1
103	A Sparse Bayesian Learning Algorithm for Longitudinal Image Data. Lecture Notes in Computer Science, 2015, 9351, 411-418.	1.0	1
104	Modeling anatomical heterogeneity in populations. , 2011, , .		0
105	Guest editorial of the IJCARS MICCAI 2016 special issue. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1243-1244.	1.7	0
106	Reply to Risk and Zhu: Mixed-effects modeling as a principled approach to heritability analysis with repeat measurements. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E123-E123.	3.3	0
107	An Improved Optimization Method for the Relevance Voxel Machine. Lecture Notes in Computer Science, 2013, , 147-154.	1.0	0