Mert Rory Sabuncu

List of Publications by Citations

115 papers	11,930 citations	42 h-index	109 g-index
126 ext. papers	15,483 ext. citations	6.3 avg, IF	6.61 L-index

#	Paper	IF	Citations
115	The organization of the human cerebral cortex estimated by intrinsic functional connectivity. *Journal of Neurophysiology*, **2011**, 106, 1125-65	3.2	3997
114	The influence of head motion on intrinsic functional connectivity MRI. *NeuroImage*, **2012**, 59, 431-8	7.9	1823
113	Individual variability in functional connectivity architecture of the human brain. *Neuron*, **2013**, 77, 586-95	13.9	634
112	Multi-atlas segmentation of biomedical images: A survey. *Medical Image Analysis*, **2015**, 24, 205-219	15.4	402
111	A generative model for image segmentation based on label fusion. *IEEE Transactions on Medical Imaging*, **2010**, 29, 1714-29	11.7	353
110	Spherical demons: fast diffeomorphic landmark-free surface registration. *IEEE Transactions on Medical Imaging*, **2010**, 29, 650-68	11.7	252
109	Spatial Topography of Individual-Specific Cortical Networks Predicts Human Cognition, Personality, and Emotion. *Cerebral Cortex*, **2019**, 29, 2533-2551	5.1	227
108	An Unsupervised Learning Model for Deformable Medical Image Registration **2018**,		227
107	Statistical analysis of longitudinal neuroimage data with Linear Mixed Effects models. *NeuroImage*, **2013**, 66, 249-60	7.9	218
106	The dynamics of cortical and hippocampal atrophy in Alzheimer disease. *Archives of Neurology*, **2011**, 68, 1040-8		207
105	Stepwise connectivity of the modal cortex reveals the multimodal organization of the human brain. *Journal of Neuroscience*, **2012**, 32, 10649-61	6.6	179
104	A surface-based analysis of language lateralization and cortical asymmetry. *Journal of Cognitive Neuroscience*, **2013**, 25, 1477-92	3.1	142
103	Global signal regression strengthens association between resting-state functional connectivity and behavior. *NeuroImage*, **2019**, 196, 126-141	7.9	141
102	Phenome-wide heritability analysis of the UK Biobank. *PLoS Genetics*, **2017**, 13, e1006711	6	131
101	Function-based intersubject alignment of human cortical anatomy. *Cerebral Cortex*, **2010**, 20, 130-40	5.1	122
100	Measuring and comparing brain cortical surface area and other areal quantities. *NeuroImage*, **2012**, 61, 1428-43	7.9	117
99	Unsupervised Learning for Fast Probabilistic Diffeomorphic Registration. *Lecture Notes in Computer Science*, **2018**, 729-738	0.9	115

98	Resting brain dynamics at different timescales capture distinct aspects of human behavior. *Nature Communications*, **2019**, 10, 2317	17.4	113
97	Clinical prediction from structural brain MRI scans: a large-scale empirical study. *Neuroinformatics*, **2015**, 13, 31-46	3.2	102
96	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	11.5	95
95	The association between a polygenic Alzheimer score and cortical thickness in clinically normal subjects. *Cerebral Cortex*, **2012**, 22, 2653-61	5.1	91
94	Polygenic risk of Alzheimer disease is associated with early- and late-life processes. *Neurology*, **2016**, 87, 481-8	6.5	86
93	Unsupervised learning of probabilistic diffeomorphic registration for images and surfaces. *Medical Image Analysis*, **2019**, 57, 226-236	15.4	85
92	Spatiotemporal linear mixed effects modeling for the mass-univariate analysis of longitudinal neuroimage data. *NeuroImage*, **2013**, 81, 358-370	7.9	84
91	In vivo characterization of the early states of the amyloid-beta network. *Brain*, **2013**, 136, 2239-52	11.2	84
90	Deep neural networks and kernel regression achieve comparable accuracies for functional connectivity prediction of behavior and demographics. *NeuroImage*, **2020**, 206, 116276	7.9	80
89	A coding variant in CR1 interacts with APOE-ε4 to influence cognitive decline. *Human Molecular Genetics*, **2012**, 21, 2377-88	5.6	78
88	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	11.5	76
87	Effects of registration regularization and atlas sharpness on segmentation accuracy. *Medical Image Analysis*, **2008**, 12, 603-15	15.4	72
86	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	11.5	71
85	Selective disruption of the cerebral neocortex in Alzheimer's disease. *PLoS ONE*, **2010**, 5, e12853	3.7	60
84	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	5.1	56
83	Image-driven population analysis through mixture modeling. *IEEE Transactions on Medical Imaging*, **2009**, 28, 1473-87	11.7	56
82	Tau and amyloid β proteins distinctively associate to functional network changes in the aging brain. *Alzheimer's and Dementia*, **2017**, 13, 1261-1269	1.2	55
81	Identifying Shared Brain Networks in Individuals by Decoupling Functional and Anatomical Variability. *Cerebral Cortex*, **2016**, 26, 4004-14	5.1	54

80	Massively expedited genome-wide heritability analysis (MEGHA). *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 2479-84	11.5	52
79	Machine learning in resting-state fMRI analysis. *Magnetic Resonance Imaging*, **2019**, 64, 101-121	3.3	51
78	Learning task-optimal registration cost functions for localizing cytoarchitecture and function in the cerebral cortex. *IEEE Transactions on Medical Imaging*, **2010**, 29, 1424-41	11.7	50
77	Ensemble learning with 3D convolutional neural networks for functional connectome-based prediction. *NeuroImage*, **2019**, 199, 651-662	7.9	47
76	Using spanning graphs for efficient image registration. *IEEE Transactions on Image Processing*, **2008**, 17, 788-97	8.7	44
75	Dissociable influences of 4 and polygenic risk of AD dementia on amyloid and cognition. *Neurology* , **2018**, 90, e1605-e1612	6.5	43
74	The human cortex possesses a reconfigurable dynamic network architecture that is disrupted in psychosis. *Nature Communications*, **2018**, 9, 1157	17.4	42
73	A unified framework for cross-modality multi-atlas segmentation of brain MRI. *Medical Image Analysis*, **2013**, 17, 1181-91	15.4	41
72	Multidimensional heritability analysis of neuroanatomical shape. *Nature Communications*, **2016**, 7, 13291	17.4	38
71	The relevance voxel machine (RVoxM): a self-tuning Bayesian model for informative image-based prediction. *IEEE Transactions on Medical Imaging*, **2012**, 31, 2290-306	11.7	37
70	Improved inference in Bayesian segmentation using Monte Carlo sampling: application to hippocampal subfield volumetry. *Medical Image Analysis*, **2013**, 17, 766-78	15.4	33
69	A unified framework for MR based disease classification. *Lecture Notes in Computer Science*, **2009**, 21, 300-13	0.9	32
68	Robust Atlas-Based Segmentation of Highly Variable Anatomy: Left Atrium Segmentation. *Lecture Notes in Computer Science*, **2010**, 6364, 85-94	0.9	32
67	Consistency Clustering: A Robust Algorithm for Group-wise Registration, Segmentation and Automatic Atlas Construction in Diffusion MRI. *International Journal of Computer Vision*, **2009**, 85, 279-290	10.6	31
66	Diffeomorphic functional brain surface alignment: Functional demons. *NeuroImage*, **2017**, 156, 456-465	7.9	30
65	Network assemblies in the functional brain. *Current Opinion in Neurology*, **2012**, 25, 384-91	7.1	30
64	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	11.5	30
63	Deep convolutional neural networks for segmenting 3D in vivo multiphoton images of vasculature in Alzheimer disease mouse models. *PLoS ONE*, **2019**, 14, e0213539	3.7	29

62	Deep-Learning-Based Optimization of the Under-Sampling Pattern in MRI. *IEEE Transactions on Computational Imaging*, **2020**, 6, 1139-1152	4.5	24
61	Medical Image Imputation from Image Collections. *IEEE Transactions on Medical Imaging*, **2018**,	11.7	23
60	On removing interpolation and resampling artifacts in rigid image registration. *IEEE Transactions on Image Processing*, **2013**, 22, 816-27	8.7	23
59	Joint modeling of imaging and genetics. *Lecture Notes in Computer Science*, **2013**, 23, 766-77	0.9	23
58	Event time analysis of longitudinal neuroimage data. *NeuroImage*, **2014**, 97, 9-18	7.9	22
57	Discovering modes of an image population through mixture modeling. *Lecture Notes in Computer Science*, **2008**, 11, 381-9	0.9	22
56	Asymmetric image-template registration. *Lecture Notes in Computer Science*, **2009**, 12, 565-73	0.9	22
55	Unsupervised Deep Learning for Bayesian Brain MRI Segmentation. *Lecture Notes in Computer Science*, **2019**, 11766, 356-365	0.9	21
54	Fidelity imposed network edit (FINE) for solving ill-posed image reconstruction. *NeuroImage*, **2020**, 211, 116579	7.9	18
53	Multi-modal latent factor exploration of atrophy, cognitive and tau heterogeneity in Alzheimer‡s disease. *NeuroImage*, **2019**, 201, 116043	7.9	18
52	A kernel machine method for detecting effects of interaction between multidimensional variable sets: an imaging genetics application. *NeuroImage*, **2015**, 109, 505-514	7.9	18
51	A GENERATIVE MODEL FOR MULTI-ATLAS SEGMENTATION ACROSS MODALITIES **2012**, 888-891	1.5	18
50	Example-based restoration of high-resolution magnetic resonance image acquisitions. *Lecture Notes in Computer Science*, **2013**, 16, 131-8	0.9	17
49	Heritability of individualized cortical network topography. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	17
48	Polygenic Risk of Spasmodic Dysphonia is Associated With Vulnerable Sensorimotor Connectivity. *Cerebral Cortex*, **2018**, 28, 158-166	5.1	16
47	The Relevance Voxel Machine (RVoxM): a Bayesian method for image-based prediction. *Lecture Notes in Computer Science*, **2011**, 14, 99-106	0.9	15
46	Genetic variation of oxidative phosphorylation genes in stroke and Alzheimer‡s disease. *Neurobiology of Aging*, **2014**, 35, 1956.e1-8	5.6	14
45	Mid-space-independent deformable image registration. *NeuroImage*, **2017**, 152, 158-170	7.9	13

44	Machine Learning Prediction of Stroke Mechanism in Embolic Strokes of Undetermined Source. *Stroke*, **2020**, 51, e203-e210	6.7	13
43	An algorithm for optimal fusion of atlases with different labeling protocols. *NeuroImage*, **2015**, 106, 451-63	7.9	12
42	Machine Learning Methods Predict Individual Upper-Limb Motor Impairment Following Therapy in Chronic Stroke. *Neurorehabilitation and Neural Repair*, **2020**, 34, 428-439	4.7	12
41	Is deep learning better than kernel regression for functional connectivity prediction of fluid intelligence? **2018**,		11
40	A Generative Model for Probabilistic Label Fusion of Multimodal Data. *Lecture Notes in Computer Science*, **2012**, 7509, 115-133	0.9	11
39	The Shared Genetic Basis of Educational Attainment and Cerebral Cortical Morphology. *Cerebral Cortex*, **2019**, 29, 3471-3481	5.1	11
38	Sex classification using long-range temporal dependence of resting-state functional MRI time series. *Human Brain Mapping*, **2020**, 41, 3567-3579	5.9	9
37	Heritability and interindividual variability of regional structure-function coupling. *Nature Communications*, **2021**, 12, 4894	17.4	8
36	Spatial Topography of Individual-Specific Cortical Networks Predicts Human Cognition, Personality and Emotion		7
35	Population Based Image Imputation. *Lecture Notes in Computer Science*, **2017**, 10265, 659-671	0.9	7
34	Avoiding symmetry-breaking spatial non-uniformity in deformable image registration via a quasi-volume-preserving constraint. *NeuroImage*, **2015**, 106, 238-51	7.9	6
33	Image Registration in Medical Robotics and Intelligent Systems: Fundamentals and Applications. *Advanced Intelligent Systems*, **2019**, 1, 1900048	6	6
32	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	3.2	6
31	A cautionary analysis of STAPLE using direct inference of segmentation truth. *Lecture Notes in Computer Science*, **2014**, 17, 398-406	0.9	6
30	A universal and efficient method to compute maps from image-based prediction models. *Lecture Notes in Computer Science*, **2014**, 17, 353-60	0.9	6
29	Supervised nonparametric image parcellation. *Lecture Notes in Computer Science*, **2009**, 12, 1075-83	0.9	6
28	Global Signal Regression Strengthens Association between Resting-State Functional Connectivity and Behavior		6
27	Neural Network-Based Reconstruction in Compressed Sensing MRI Without Fully-Sampled Training Data. *Lecture Notes in Computer Science*, **2020**, 27-37	0.9	5

26	Cortical response to naturalistic stimuli is largely predictable with deep neural networks. *Science Advances*, **2021**, 7,	14.3	5
25	Volumetric Landmark Detection with a Multi-Scale Shift Equivariant Neural Network **2020**,		4
24	Learning Conditional Deformable Shape Templates for Brain Anatomy. *Lecture Notes in Computer Science*, **2020**, 353-362	0.9	4
23	Deep Neural Networks and Kernel Regression Achieve Comparable Accuracies for Functional Connectivity Prediction of Behavior and Demographics		4
22	SYMMETRIC NON-RIGID IMAGE REGISTRATION VIA AN ADAPTIVE QUASI-VOLUME-PRESERVING CONSTRAINT **2013**, 2013, 230-233	1.5	3
21	Image-driven population analysis through mixture modeling **2009**,		3
20	Nonparametric Mixture Models for Supervised Image Parcellation **2009**, 12, 301-313		3
19	Predicting Individual Task Contrasts From Resting-state Functional Connectivity using a Surface-based Convolutional Network.. *NeuroImage*, **2021**, 118849	7.9	3
18	Analysis of surfaces using constrained regression models. *Lecture Notes in Computer Science*, **2008**, 11, 842-9	0.9	3
17	Sex classification using long-range temporal dependence of resting-state functional MRI time series		3
16	Magnetic Resonance Imaging Radiomics-Based Machine Learning Prediction of Clinically Significant Prostate Cancer in Equivocal PI-RADS 3 Lesions. *Journal of Magnetic Resonance Imaging*, **2021**, 54, 1466-1473	5.6	3
15	NeuroGen: Activation optimized image synthesis for discovery neuroscience.. *NeuroImage*, **2021**, 247, 118812	7.9	2
14	Heritability of individualized cortical network topography		2
13	Regional structural-functional connectome coupling is heritable and associated with age, sex and cognitive scores in adults		2
12	A Bayesian Algorithm for Image-Based Time-to-Event Prediction. *Lecture Notes in Computer Science*, **2013**, 74-81	0.9	2
11	Predicting Individual Task Contrasts From Resting-state Functional Connectivity using a Surface-based Convolutional Network		2
10	A Robust Algorithm for Fiber-Bundle Atlas Construction **2007**,		1
9	Predicting response to motor therapy in chronic stroke patients using Machine Learning		1

8	Mid-Space-Independent Symmetric Data Term for Pairwise Deformable Image Registration. *Lecture Notes in Computer Science*, **2015**, 9350, 263-271	0.9	1
7	Predictive Modeling of Anatomy with Genetic and Clinical Data. *Lecture Notes in Computer Science*, **2015**, 9351, 519-526	0.9	1
6	A Sparse Bayesian Learning Algorithm for Longitudinal Image Data. *Lecture Notes in Computer Science*, **2015**, 9351, 411-418	0.9	1
5	A probabilistic, non-parametric framework for inter-modality label fusion. *Lecture Notes in Computer Science*, **2013**, 16, 576-83	0.9	1
4	On Feature Relevance in Image-Based Prediction Models: An Empirical Study. *Lecture Notes in Computer Science*, **2013**, 171-178	0.9	1
3	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	11.5	
2	Joint Optimization of Hadamard Sensing and Reconstruction in Compressed Sensing Fluorescence Microscopy. *Lecture Notes in Computer Science*, **2021**, 129-139	0.9	
1	An Improved Optimization Method for the Relevance Voxel Machine. *Lecture Notes in Computer Science*, **2013**, 147-154	0.9	