# Mert Rory Sabuncu

## List of Publications by Year in Descending Order

| 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 | Joint Optimization of Hadamard Sensing and Reconstruction in Compressed Sensing Fluorescence Microscopy. *Lecture Notes in Computer Science*, **2021**, 129-139 | 0.9 | |
| 114 | NeuroGen: Activation optimized image synthesis for discovery neuroscience.. *NeuroImage*, **2021**, 247, 118812 | 7.9 | 2 |
| 113 | Predicting Individual Task Contrasts From Resting-state Functional Connectivity using a Surface-based Convolutional Network.. *NeuroImage*, **2021**, 118849 | 7.9 | 3 |
| 112 | Cortical response to naturalistic stimuli is largely predictable with deep neural networks. *Science Advances*, **2021**, 7, | 14.3 | 5 |
| 111 | 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 |
| 110 | Heritability of individualized cortical network topography. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118, | 11.5 | 17 |
| 109 | Heritability and interindividual variability of regional structure-function coupling. *Nature Communications*, **2021**, 12, 4894 | 17.4 | 8 |
| 108 | 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 |
| 107 | Volumetric Landmark Detection with a Multi-Scale Shift Equivariant Neural Network **2020**, | | 4 |
| 106 | Sex classification using long-range temporal dependence of resting-state functional MRI time series. *Human Brain Mapping*, **2020**, 41, 3567-3579 | 5.9 | 9 |
| 105 | Fidelity imposed network edit (FINE) for solving ill-posed image reconstruction. *NeuroImage*, **2020**, 211, 116579 | 7.9 | 18 |
| 104 | Learning Conditional Deformable Shape Templates for Brain Anatomy. *Lecture Notes in Computer Science*, **2020**, 353-362 | 0.9 | 4 |
| 103 | Neural Network-Based Reconstruction in Compressed Sensing MRI Without Fully-Sampled Training Data. *Lecture Notes in Computer Science*, **2020**, 27-37 | 0.9 | 5 |
| 102 | Deep-Learning-Based Optimization of the Under-Sampling Pattern in MRI. *IEEE Transactions on Computational Imaging*, **2020**, 6, 1139-1152 | 4.5 | 24 |
| 101 | Machine Learning Prediction of Stroke Mechanism in Embolic Strokes of Undetermined Source. *Stroke*, **2020**, 51, e203-e210 | 6.7 | 13 |
| 100 | Deep neural networks and kernel regression achieve comparable accuracies for functional connectivity prediction of behavior and demographics. *NeuroImage*, **2020**, 206, 116276 | 7.9 | 80 |
| 99 | Resting brain dynamics at different timescales capture distinct aspects of human behavior. *Nature Communications*, **2019**, 10, 2317 | 17.4 | 113 |

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| 98 | Ensemble learning with 3D convolutional neural networks for functional connectome-based prediction. *NeuroImage*, **2019**, 199, 651-662 | 7.9 | 47 |
| 97 | Machine learning in resting-state fMRI analysis. *Magnetic Resonance Imaging*, **2019**, 64, 101-121 | 3.3 | 51 |
| 96 | 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 |
| 95 | Global signal regression strengthens association between resting-state functional connectivity and behavior. *NeuroImage*, **2019**, 196, 126-141 | 7.9 | 141 |
| 94 | Spatial Topography of Individual-Specific Cortical Networks Predicts Human Cognition, Personality, and Emotion. *Cerebral Cortex*, **2019**, 29, 2533-2551 | 5.1 | 227 |
| 93 | Unsupervised learning of probabilistic diffeomorphic registration for images and surfaces. *Medical Image Analysis*, **2019**, 57, 226-236 | 15.4 | 85 |
| 92 | Multi-modal latent factor exploration of atrophy, cognitive and tau heterogeneity in Alzheimer's disease. *NeuroImage*, **2019**, 201, 116043 | 7.9 | 18 |
| 91 | Image Registration in Medical Robotics and Intelligent Systems: Fundamentals and Applications. *Advanced Intelligent Systems*, **2019**, 1, 1900048 | 6 | 6 |
| 90 | 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 |
| 89 | Unsupervised Deep Learning for Bayesian Brain MRI Segmentation. *Lecture Notes in Computer Science*, **2019**, 11766, 356-365 | 0.9 | 21 |
| 88 | The Shared Genetic Basis of Educational Attainment and Cerebral Cortical Morphology. *Cerebral Cortex*, **2019**, 29, 3471-3481 | 5.1 | 11 |
| 87 | 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 | |
| 86 | 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 |
| 85 | Dissociable influences of ε4 and polygenic risk of AD dementia on amyloid and cognition. *Neurology*, **2018**, 90, e1605-e1612 | 6.5 | 43 |
| 84 | The human cortex possesses a reconfigurable dynamic network architecture that is disrupted in psychosis. *Nature Communications*, **2018**, 9, 1157 | 17.4 | 42 |
| 83 | Polygenic Risk of Spasmodic Dysphonia is Associated With Vulnerable Sensorimotor Connectivity. *Cerebral Cortex*, **2018**, 28, 158-166 | 5.1 | 16 |
| 82 | Is deep learning better than kernel regression for functional connectivity prediction of fluid intelligence? **2018**, | | 11 |
| 81 | Medical Image Imputation from Image Collections. *IEEE Transactions on Medical Imaging*, **2018**, | 11.7 | 23 |

| # | Reference | | |
|---|---|---|---|
| 80 | 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 |
| 79 | An Unsupervised Learning Model for Deformable Medical Image Registration **2018**, | | 227 |
| 78 | Unsupervised Learning for Fast Probabilistic Diffeomorphic Registration. *Lecture Notes in Computer Science*, **2018**, 729-738 | 0.9 | 115 |
| 77 | Mid-space-independent deformable image registration. *NeuroImage*, **2017**, 152, 158-170 | 7.9 | 13 |
| 76 | Diffeomorphic functional brain surface alignment: Functional demons. *NeuroImage*, **2017**, 156, 456-465 | 7.9 | 30 |
| 75 | 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 |
| 74 | 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 |
| 73 | Phenome-wide heritability analysis of the UK Biobank. *PLoS Genetics*, **2017**, 13, e1006711 | 6 | 131 |
| 72 | Population Based Image Imputation. *Lecture Notes in Computer Science*, **2017**, 10265, 659-671 | 0.9 | 7 |
| 71 | Identifying Shared Brain Networks in Individuals by Decoupling Functional and Anatomical Variability. *Cerebral Cortex*, **2016**, 26, 4004-14 | 5.1 | 54 |
| 70 | Multidimensional heritability analysis of neuroanatomical shape. *Nature Communications*, **2016**, 7, 13291 | 17.4 | 38 |
| 69 | Polygenic risk of Alzheimer disease is associated with early- and late-life processes. *Neurology*, **2016**, 87, 481-8 | 6.5 | 86 |
| 68 | 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 |
| 67 | 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 |
| 66 | An algorithm for optimal fusion of atlases with different labeling protocols. *NeuroImage*, **2015**, 106, 451-63 | 7.9 | 12 |
| 65 | Avoiding symmetry-breaking spatial non-uniformity in deformable image registration via a quasi-volume-preserving constraint. *NeuroImage*, **2015**, 106, 238-51 | 7.9 | 6 |
| 64 | Multi-atlas segmentation of biomedical images: A survey. *Medical Image Analysis*, **2015**, 24, 205-219 | 15.4 | 402 |
| 63 | 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 |

| 62 | 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 |
|---|---|---|---|
| 61 | Clinical prediction from structural brain MRI scans: a large-scale empirical study. *Neuroinformatics*, **2015**, 13, 31-46 | 3.2 | 102 |
| 60 | Mid-Space-Independent Symmetric Data Term for Pairwise Deformable Image Registration. *Lecture Notes in Computer Science*, **2015**, 9350, 263-271 | 0.9 | 1 |
| 59 | Predictive Modeling of Anatomy with Genetic and Clinical Data. *Lecture Notes in Computer Science*, **2015**, 9351, 519-526 | 0.9 | 1 |
| 58 | A Sparse Bayesian Learning Algorithm for Longitudinal Image Data. *Lecture Notes in Computer Science*, **2015**, 9351, 411-418 | 0.9 | 1 |
| 57 | Event time analysis of longitudinal neuroimage data. *NeuroImage*, **2014**, 97, 9-18 | 7.9 | 22 |
| 56 | Genetic variation of oxidative phosphorylation genes in stroke and Alzheimer's disease. *Neurobiology of Aging*, **2014**, 35, 1956.e1-8 | 5.6 | 14 |
| 55 | A cautionary analysis of STAPLE using direct inference of segmentation truth. *Lecture Notes in Computer Science*, **2014**, 17, 398-406 | 0.9 | 6 |
| 54 | 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 |
| 53 | Improved inference in Bayesian segmentation using Monte Carlo sampling: application to hippocampal subfield volumetry. *Medical Image Analysis*, **2013**, 17, 766-78 | 15.4 | 33 |
| 52 | A surface-based analysis of language lateralization and cortical asymmetry. *Journal of Cognitive Neuroscience*, **2013**, 25, 1477-92 | 3.1 | 142 |
| 51 | A unified framework for cross-modality multi-atlas segmentation of brain MRI. *Medical Image Analysis*, **2013**, 17, 1181-91 | 15.4 | 41 |
| 50 | Individual variability in functional connectivity architecture of the human brain. *Neuron*, **2013**, 77, 586-95 | 13.9 | 634 |
| 49 | On removing interpolation and resampling artifacts in rigid image registration. *IEEE Transactions on Image Processing*, **2013**, 22, 816-27 | 8.7 | 23 |
| 48 | Statistical analysis of longitudinal neuroimage data with Linear Mixed Effects models. *NeuroImage*, **2013**, 66, 249-60 | 7.9 | 218 |
| 47 | SYMMETRIC NON-RIGID IMAGE REGISTRATION VIA AN ADAPTIVE QUASI-VOLUME-PRESERVING CONSTRAINT **2013**, 2013, 230-233 | 1.5 | 3 |
| 46 | Spatiotemporal linear mixed effects modeling for the mass-univariate analysis of longitudinal neuroimage data. *NeuroImage*, **2013**, 81, 358-370 | 7.9 | 84 |
| 45 | In vivo characterization of the early states of the amyloid-beta network. *Brain*, **2013**, 136, 2239-52 | 11.2 | 84 |

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| 44 | Joint modeling of imaging and genetics. *Lecture Notes in Computer Science*, **2013**, 23, 766-77 | 0.9 | 23 |
| 43 | Example-based restoration of high-resolution magnetic resonance image acquisitions. *Lecture Notes in Computer Science*, **2013**, 16, 131-8 | 0.9 | 17 |
| 42 | A probabilistic, non-parametric framework for inter-modality label fusion. *Lecture Notes in Computer Science*, **2013**, 16, 576-83 | 0.9 | 1 |
| 41 | A Bayesian Algorithm for Image-Based Time-to-Event Prediction. *Lecture Notes in Computer Science*, **2013**, 74-81 | 0.9 | 2 |
| 40 | On Feature Relevance in Image-Based Prediction Models: An Empirical Study. *Lecture Notes in Computer Science*, **2013**, 171-178 | 0.9 | 1 |
| 39 | An Improved Optimization Method for the Relevance Voxel Machine. *Lecture Notes in Computer Science*, **2013**, 147-154 | 0.9 | |
| 38 | 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 |
| 37 | The influence of head motion on intrinsic functional connectivity MRI. *NeuroImage*, **2012**, 59, 431-8 | 7.9 | 1823 |
| 36 | Measuring and comparing brain cortical surface area and other areal quantities. *NeuroImage*, **2012**, 61, 1428-43 | 7.9 | 117 |
| 35 | Stepwise connectivity of the modal cortex reveals the multimodal organization of the human brain. *Journal of Neuroscience*, **2012**, 32, 10649-61 | 6.6 | 179 |
| 34 | The association between a polygenic Alzheimer score and cortical thickness in clinically normal subjects. *Cerebral Cortex*, **2012**, 22, 2653-61 | 5.1 | 91 |
| 33 | Network assemblies in the functional brain. *Current Opinion in Neurology*, **2012**, 25, 384-91 | 7.1 | 30 |
| 32 | A GENERATIVE MODEL FOR MULTI-ATLAS SEGMENTATION ACROSS MODALITIES **2012**, 888-891 | 1.5 | 18 |
| 31 | A coding variant in CR1 interacts with APOE-4 to influence cognitive decline. *Human Molecular Genetics*, **2012**, 21, 2377-88 | 5.6 | 78 |
| 30 | A Generative Model for Probabilistic Label Fusion of Multimodal Data. *Lecture Notes in Computer Science*, **2012**, 7509, 115-133 | 0.9 | 11 |
| 29 | The organization of the human cerebral cortex estimated by intrinsic functional connectivity. *Journal of Neurophysiology*, **2011**, 106, 1125-65 | 3.2 | 3997 |
| 28 | The dynamics of cortical and hippocampal atrophy in Alzheimer disease. *Archives of Neurology*, **2011**, 68, 1040-8 | | 207 |
| 27 | The Relevance Voxel Machine (RVoxM): a Bayesian method for image-based prediction. *Lecture Notes in Computer Science*, **2011**, 14, 99-106 | 0.9 | 15 |

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| 26 | Function-based intersubject alignment of human cortical anatomy. *Cerebral Cortex*, **2010**, 20, 130-40 | 5.1 | 122 |
| 25 | Spherical demons: fast diffeomorphic landmark-free surface registration. *IEEE Transactions on Medical Imaging*, **2010**, 29, 650-68 | 11.7 | 252 |
| 24 | 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 |
| 23 | A generative model for image segmentation based on label fusion. *IEEE Transactions on Medical Imaging*, **2010**, 29, 1714-29 | 11.7 | 353 |
| 22 | Selective disruption of the cerebral neocortex in Alzheimer's disease. *PLoS ONE*, **2010**, 5, e12853 | 3.7 | 60 |
| 21 | Robust Atlas-Based Segmentation of Highly Variable Anatomy: Left Atrium Segmentation. *Lecture Notes in Computer Science*, **2010**, 6364, 85-94 | 0.9 | 32 |
| 20 | Image-driven population analysis through mixture modeling **2009**, | | 3 |
| 19 | Image-driven population analysis through mixture modeling. *IEEE Transactions on Medical Imaging*, **2009**, 28, 1473-87 | 11.7 | 56 |
| 18 | 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 |
| 17 | Nonparametric Mixture Models for Supervised Image Parcellation **2009**, 12, 301-313 | | 3 |
| 16 | A unified framework for MR based disease classification. *Lecture Notes in Computer Science*, **2009**, 21, 300-13 | 0.9 | 32 |
| 15 | Asymmetric image-template registration. *Lecture Notes in Computer Science*, **2009**, 12, 565-73 | 0.9 | 22 |
| 14 | Supervised nonparametric image parcellation. *Lecture Notes in Computer Science*, **2009**, 12, 1075-83 | 0.9 | 6 |
| 13 | Using spanning graphs for efficient image registration. *IEEE Transactions on Image Processing*, **2008**, 17, 788-97 | 8.7 | 44 |
| 12 | Effects of registration regularization and atlas sharpness on segmentation accuracy. *Medical Image Analysis*, **2008**, 12, 603-15 | 15.4 | 72 |
| 11 | Analysis of surfaces using constrained regression models. *Lecture Notes in Computer Science*, **2008**, 11, 842-9 | 0.9 | 3 |
| 10 | Discovering modes of an image population through mixture modeling. *Lecture Notes in Computer Science*, **2008**, 11, 381-9 | 0.9 | 22 |
| 9 | A Robust Algorithm for Fiber-Bundle Atlas Construction **2007**, | | 1 |