Sotirios A Tsaftaris

List of Publications by Year
in descending order

84 papers	3,134 citations	218677 26 h-index	175258 52 g-index
87 all docs	87 docs citations	87 times ranked	3308 citing authors

#	Article	IF	Citations
1	Learning disentangled representations in the imaging domain. Medical Image Analysis, 2022, 80, 102516.	11.6	26
2	DiCyc: GAN-based deformation invariant cross-domain information fusion for medical image synthesis. Information Fusion, 2021, 67, 147-160.	19.1	62
3	Semi-supervised Meta-learning with Disentanglement for Domain-Generalised Medical Image Segmentation. Lecture Notes in Computer Science, 2021, , 307-317.	1.3	19
4	Stop Throwing Away Discriminators! Re-using Adversaries for Test-Time Training. Lecture Notes in Computer Science, 2021, , 68-78.	1.3	3
5	Data-driven feature learning for myocardial registration and segmentation. , 2021, , 185-225.		1
6	Self-supervised Multi-scale Consistency for Weakly Supervised Segmentation Learning. Lecture Notes in Computer Science, 2021, , 14-24.	1.3	0
7	Disentangle, Align and Fuse for Multimodal and Semi-Supervised Image Segmentation. IEEE Transactions on Medical Imaging, 2021, 40, 781-792.	8.9	38
8	Learning to Segment From Scribbles Using Multi-Scale Adversarial Attention Gates. IEEE Transactions on Medical Imaging, 2021, 40, 1990-2001.	8.9	42
9	Semi-Supervised Domain Adaptation for Holistic Counting under Label Gap. Journal of Imaging, 2021, 7, 198.	3.0	0
10	Learning to synthesise the ageing brain without longitudinal data. Medical Image Analysis, 2021, 73, 102169.	11.6	20
11	Multi-Centre, Multi-Vendor and Multi-Disease Cardiac Segmentation: The M&Ms Challenge. IEEE Transactions on Medical Imaging, 2021, 40, 3543-3554.	8.9	168
12	Disentangled Representations for Domain-Generalized Cardiac Segmentation. Lecture Notes in Computer Science, 2021, , 187-195.	1.3	8
13	Unsupervised Rotation Factorization in Restricted Boltzmann Machines. IEEE Transactions on Image Processing, 2020, 29, 2166-2175.	9.8	5
14	AI in Medical Imaging Informatics: Current Challenges and Future Directions. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 1837-1857.	6.3	215
15	Affordable and robust phenotyping framework to analyse root system architecture of soilâ€grown plants. Plant Journal, 2020, 103, 2330-2343.	5.7	29
16	Pseudo-healthy synthesis with pathology disentanglement and adversarial learning. Medical Image Analysis, 2020, 64, 101719.	11.6	26
17	Doing More With Less: A Multitask Deep Learning Approach in Plant Phenotyping. Frontiers in Plant Science, 2020, 11, 141.	3.6	46
18	Multimodal Cardiac Segmentation Using Disentangled Representation Learning. Lecture Notes in Computer Science, 2020, , 128-137.	1.3	6

#	Article	IF	Citations
19	Max-Fusion U-Net for Multi-modal Pathology Segmentation with Attention and Dynamic Resampling. Lecture Notes in Computer Science, 2020, , 68-81.	1.3	5
20	Disentangled representation learning in cardiac image analysis. Medical Image Analysis, 2019, 58, 101535.	11.6	105
21	The Generalized Complex Kernel Least-Mean-Square Algorithm. IEEE Transactions on Signal Processing, 2019, 67, 5213-5222.	5.3	15
22	Accurate needle-free assessment of myocardial oxygenation for ischemic heart disease in canines using magnetic resonance imaging. Science Translational Medicine, 2019, 11, .	12.4	12
23	Adversarial Large-Scale Root Gap Inpainting. , 2019, , .		10
24	Leaf Counting Without Annotations Using Adversarial Unsupervised Domain Adaptation. , 2019, , .		21
25	Sharing the Right Data Right: A Symbiosis with Machine Learning. Trends in Plant Science, 2019, 24, 99-102.	8.8	21
26	Temporal Consistency Objectives Regularize the Learning of Disentangled Representations. Lecture Notes in Computer Science, 2019, , 11-19.	1.3	6
27	Cardiovascular Magnetic Resonance Assessment of Myocardial Oxygenation. , 2019, , 84-96.e3.		0
28	Statistical Shape Modeling of the Left Ventricle: Myocardial Infarct Classification Challenge. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 503-515.	6.3	61
29	Multimodal MR Synthesis via Modality-Invariant Latent Representation. IEEE Transactions on Medical Imaging, 2018, 37, 803-814.	8.9	178
30	Citizen crowds and experts: observer variability in image-based plant phenotyping. Plant Methods, 2018, 14, 12.	4.3	33
31	Phenoâ€Deep Counter: a unified and versatile deep learning architecture for leaf counting. Plant Journal, 2018, 96, 880-890.	5.7	72
32	Factorised Spatial Representation Learning: Application in Semi-supervised Myocardial Segmentation. Lecture Notes in Computer Science, 2018, , 490-498.	1.3	37
33	Joint Myocardial Registration andÂSegmentation of Cardiac BOLD MRI. Lecture Notes in Computer Science, 2018, , 12-20.	1.3	1
34	Phenotiki: an open software and hardware platform for affordable and easy imageâ€based phenotyping of rosetteâ€shaped plants. Plant Journal, 2017, 90, 204-216.	5.7	96
35	Arterial CO₂ as a Potent Coronary Vasodilator: A Preclinical PET/MR Validation Study with Implications for Cardiac Stress Testing. Journal of Nuclear Medicine, 2017, 58, 953-960.	5.0	14
36	Unsupervised Myocardial Segmentation for Cardiac BOLD. IEEE Transactions on Medical Imaging, 2017, 36, 2228-2238.	8.9	18

#	Article	IF	Citations
37	ARIGAN: Synthetic Arabidopsis Plants Using Generative Adversarial Network. , 2017, , .		35
38	Leveraging Multiple Datasets for Deep Leaf Counting. , 2017, , .		38
39	A â€œDo-It-Yourselfâ€•phenotyping system: measuring growth and morphology throughout the diel cycle in rosette shaped plants. Plant Methods, 2017, 13, 95.	4.3	42
40	Robust Multi-modal MR Image Synthesis. Lecture Notes in Computer Science, 2017, , 347-355.	1.3	24
41	Adversarial Image Synthesis for Unpaired Multi-modal Cardiac Data. Lecture Notes in Computer Science, 2017, , 3-13.	1.3	96
42	Special issue on computer vision and image analysis in plant phenotyping. Machine Vision and Applications, 2016, 27, 607-609.	2.7	25
43	Semi-automated registration-based anatomical labelling, voxel based morphometry and cortical thickness mapping of the mouse brain. Journal of Neuroscience Methods, 2016, 267, 62-73.	2.5	51
44	Machine Learning for Plant Phenotyping Needs Image Processing. Trends in Plant Science, 2016, 21, 989-991.	8.8	116
45	Leaf segmentation in plant phenotyping: a collation study. Machine Vision and Applications, 2016, 27, 585-606.	2.7	204
46	Dictionary-Driven Ischemia Detection From Cardiac Phase-Resolved Myocardial BOLD MRI at Rest. IEEE Transactions on Medical Imaging, 2016, 35, 282-293.	8.9	11
47	Finely-grained annotated datasets for image-based plant phenotyping. Pattern Recognition Letters, 2016, 81, 80-89.	4.2	192
48	Classification-aware distortion metric for HEVC intra coding. , 2015, , .		2
49	Image Analysis: The New Bottleneck in Plant Phenotyping [Applications Corner]. IEEE Signal Processing Magazine, 2015, 32, 126-131.	5.6	181
50	Unsupervised Myocardial Segmentation for Cardiac MRI. Lecture Notes in Computer Science, 2015, , 12-20.	1.3	12
51	The significance of image compression in plant phenotyping applications. Functional Plant Biology, 2015, 42, 971.	2.1	10
52	Large-scale analysis of neuroimaging data on commercial clouds with content-aware resource allocation strategies. International Journal of High Performance Computing Applications, 2015, 29, 473-488.	3.7	5
53	Computationally Efficient Data and Application Driven Color Transforms for the Compression and Enhancement of Images and Video. , 2015, , 371-393.		1
54	Unsupervised and supervised approaches to color space transformation for image coding. , 2014, , .		3

#	Article	IF	Citations
55	Synthetic Generation of Myocardial Bloodâ€“Oxygen-Level-Dependent MRI Time Series Via Structural Sparse Decomposition Modeling. IEEE Transactions on Medical Imaging, 2014, 33, 1422-1433.	8.9	7
56	Explicit Shift-Invariant Dictionary Learning. IEEE Signal Processing Letters, 2014, 21, 6-9.	3.6	31
57	Assessment of Myocardial Reactivity to Controlled Hypercapnia with Free-breathing T2-prepared Cardiac Blood Oxygen Levelâ€“Dependent MR Imaging. Radiology, 2014, 272, 397-406.	7.3	21
58	Image-based plant phenotyping with incremental learning and active contours. Ecological Informatics, 2014, 23, 35-48.	5.2	104
59	Structured Dictionaries for Ischemia Estimation in Cardiac BOLD MRI at Rest. Lecture Notes in Computer Science, 2014, 17, 562-569.	1.3	2
60	Chronic Manifestation of Postreperfusion Intramyocardial Hemorrhage as Regional Iron Deposition. Circulation: Cardiovascular Imaging, 2013, 6, 218-228.	2.6	79
61	Learning computationally efficient approximations of complex image segmentation metrics. , 2013, , .		4
62	Application-aware image compression for low cost and distributed plant phenotyping. , 2013, , .		6
63	Active contour model driven by Globally Signed Region Pressure Force. , 2013, , .		15
64	Application-Aware Approach to Compression and Transmission of H.264 Encoded Video for Automated and Centralized Transportation Surveillance. IEEE Transactions on Intelligent Transportation Systems, 2013, 14, 2002-2007.	8.0	5
65	Detecting Myocardial Ischemia at Rest With Cardiac Phaseâ€“Resolved Blood Oxygen Levelâ€“Dependent Cardiovascular Magnetic Resonance. Circulation: Cardiovascular Imaging, 2013, 6, 311-319.	2.6	29
66	Iron Deposition following Chronic Myocardial Infarction as a Substrate for Cardiac Electrical Anomalies: Initial Findings in a Canine Model. PLoS ONE, 2013, 8, e73193.	2.5	23
67	Mouse neuroimaging phenotyping in the cloud. , 2012, , .		2
68	Ischemic extent as a biomarker for characterizing severity of coronary artery stenosis with blood oxygenâ€sensitive MRI. Journal of Magnetic Resonance Imaging, 2012, 35, 1338-1348.	3.4	17
69	Low-Complexity Tracking-Aware H.264 Video Compression for Transportation Surveillance. IEEE Transactions on Circuits and Systems for Video Technology, 2011, 21, 1378-1389.	8.3	21
70	T₂â€weighted STIR imaging of myocardial edema associated with ischemiaâ€reperfusion injury: The influence of proton density effect on image contrast. Journal of Magnetic Resonance Imaging, 2011, 33, 962-967.	3.4	4
71	Anomalous video event detection using spatiotemporal context. Computer Vision and Image Understanding, 2011, 115, 323-333.	4.7	163
72	Colorizing a Masterpiece [Applications Corner]. IEEE Signal Processing Magazine, 2011, 28, 113-119.	5.6	3

#	Article	IF	Citations
73	Fully automated reconstruction of ungated ghost magnetic resonance angiograms. Journal of Magnetic Resonance Imaging, 2010, 31, 655-662.	3.4	2
74	Artifactâ€reduced twoâ€dimensional cine steady state free precession for myocardial bloodâ€•oxygenâ€levelâ€dependent imaging. Journal of Magnetic Resonance Imaging, 2010, 31, 863-871.	3.4	14
75	On the mechanism of myocardial edema contrast in T2-STIR images. Journal of Cardiovascular Magnetic Resonance, 2010, 12, .	3.3	1
76	Video anomaly detection in spatiotemporal context. , 2010, , .		9
77	Dual-Contrast Cellular Magnetic Resonance Imaging. Molecular Imaging, 2009, 8, 7290.2009.00024.	1.4	2
78	Retrieval Efficiency of DNA-Based Databases of Digital Signals. IEEE Transactions on Nanobioscience, 2009, 8, 259-270.	3.3	1
79	Local feature extraction for video copy detection in a database. , 2008, , .		19
80	DNA Microarray Image Intensity Extraction using Eigenspots. , 2007, , .		2
81	Joint source-channel coding for wireless object-based video communications utilizing data hiding. IEEE Transactions on Image Processing, 2006, 15, 2158-2169.	9.8	19
82	Life sciences - DNA computing from a signal processing viewpoint. IEEE Signal Processing Magazine, 2004, 21, 100-106.	5.6	16
83	How can DNA computing be applied to digital signal processing?. IEEE Signal Processing Magazine, 2004, 21, 57-61.	5.6	29
84	Fast Watermarking of MPEG-1/2 Streams Using Compressed-Domain Perceptual Embedding and a Generalized Correlator Detector. Eurasip Journal on Advances in Signal Processing, 2004, 2004, 1.	1.7	9