Stephen R Aylward

List of Publications by Year in descending order

41 papers	7,662 citations	236612 25 h-index	301761 39 g-index
42 all docs	42 docs citations	42 times ranked	11925 citing authors

#	Article	IF	Citations
1	Perfusion Imaging: An Advection Diffusion Approach. IEEE Transactions on Medical Imaging, 2021, 40, 3424-3435.	5.4	3
2	Investigating training-test data splitting strategies for automated segmentation and scoring of COVID-19 lung ultrasound images. Journal of the Acoustical Society of America, 2021, 150, 4118-4127.	0.5	11
3	Automatic Spine Ultrasound Segmentation for Scoliosis Visualization and Measurement. IEEE Transactions on Biomedical Engineering, 2020, 67, 3234-3241.	2.5	37
4	Automatic Optic Nerve Sheath Measurement in Point-of-Care Ultrasound. Lecture Notes in Computer Science, 2020, , 23-32.	1.0	2
5	Ultrasound Measurement of Vascular Density to Evaluate Response to Anti-Angiogenic Therapy in Renal Cell Carcinoma. IEEE Transactions on Biomedical Engineering, 2019, 66, 873-880.	2.5	16
6	Image-Based Methods for Phase Estimation, Gating, and Temporal Superresolution of Cardiac Ultrasound. IEEE Transactions on Biomedical Engineering, 2019, 66, 72-79.	2.5	7
7	A new preclinical ultrasound platform for widefield 3D imaging of rodents. Review of Scientific Instruments, 2018, 89, 075107.	0.6	12
8	Brain extraction from normal and pathological images: A joint PCA/Image-Reconstruction approach. NeuroImage, 2018, 176, 431-445.	2.1	20
9	Automatic Estimation of the Optic Nerve Sheath Diameter from Ultrasound Images. Lecture Notes in Computer Science, 2017, 10549, 113-120.	1.0	15
10	SlicerITKUltrasound: A 3D Slicer extension for scan conversion of B-mode and next-generation ultrasound imaging modalities. Journal of Open Source Software, 2017, 2, 153.	2.0	0
11	Increasing the impact of medical image computing using community-based open-access hackathons: The NA-MIC and 3D Slicer experience. Medical Image Analysis, 2016, 33, 176-180.	7.0	58
12	Quantification of Microvascular Tortuosity during Tumor Evolution Using Acoustic Angiography. Ultrasound in Medicine and Biology, 2015, 41, 1896-1904.	0.7	104
13	Low-Rank Atlas Image Analyses in the Presence of Pathologies. IEEE Transactions on Medical Imaging, 2015, 34, 2583-2591.	5.4	40
14	Functional ultrasound imaging for assessment of extracellular matrix scaffolds used for liver organoid formation. Biomaterials, 2013, 34, 9341-9351.	5.7	37
15	A Locally Adaptive Regularization Based on Anisotropic Diffusion for Deformable Image Registration of Sliding Organs. IEEE Transactions on Medical Imaging, 2013, 32, 2114-2126.	5.4	61
16	Mapping Microvasculature with Acoustic Angiography Yields Quantifiable Differences between Healthy and Tumor-bearing Tissue Volumes in a Rodent Model. Radiology, 2012, 264, 733-740.	3.6	104
17	The National Alliance for Medical Image Computing, a roadmap initiative to build a free and open source software infrastructure for translational research in medical image analysis. Journal of the American Medical Informatics Association: JAMIA, 2012, 19, 176-180.	2.2	10
18	Imaging tortuosity: the potential utility of acoustic angiography in cancer detection and tumor assessment. Imaging in Medicine, 2012, 4, 581-583.	0.0	0

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19	3D Slicer as an image computing platform for the Quantitative Imaging Network. Magnetic Resonance Imaging, 2012, 30, 1323-1341.	1.0	5,126
20	Neuroimaging of structural pathology and connectomics in traumatic brain injury: Toward personalized outcome prediction. NeuroImage: Clinical, 2012, 1, 1-17.	1.4	111
21	The effects of healthy aging on intracerebral blood vessels visualized by magnetic resonance angiography. Neurobiology of Aging, 2010, 31, 290-300.	1.5	89
22	Vessel target location estimation during the TIPS procedure. Medical Image Analysis, 2009, 13, 519-529.	7.0	3
23	Analyzing attributes of vessel populations. Medical Image Analysis, 2005, 9, 39-49.	7.0	66
24	Teaching medical image analysis with the Insight Toolkit. Medical Image Analysis, 2005, 9, 605-611.	7.0	9
25	Vessel Tortuosity and Brain Tumor Malignancy. Academic Radiology, 2005, 12, 1232-1240.	1.3	239
26	Intraoperative Image Processing for Surgical Guidance. IEEE Transactions on Medical Imaging, 2005, 24, 1401-1404.	5.4	1
27	The Effects of Gray Scale Image Processing on Digital Mammography Interpretation Performance1. Academic Radiology, 2005, 12, 585-595.	1.3	27
28	Abnormal Vessel Tortuosity as a Marker of Treatment Response of Malignant Gliomas: Preliminary Report. Technology in Cancer Research and Treatment, 2004, 3, 577-584.	0.8	39
29	Neuroimaging in human immunodeficiency virus infection. Journal of Neuroimmunology, 2004, 157, 153-162.	1.1	89
30	Extracting branching tubular object geometry via cores. Medical Image Analysis, 2004, 8, 169-176.	7.0	38
31	Registration and Analysis of Vascular Images. International Journal of Computer Vision, 2003, 55, 123-138.	10.9	72
32	Measuring tortuosity of the intracerebral vasculature from MRA images. IEEE Transactions on Medical Imaging, 2003, 22, 1163-1171.	5.4	339
33	Initialization, noise, singularities, and scale in height ridge traversal for tubular object centerline extraction. IEEE Transactions on Medical Imaging, 2002, 21, 61-75.	5.4	485
34	Volume rendering of segmented image objects. IEEE Transactions on Medical Imaging, 2002, 21, 998-1002.	5.4	37
35	Patient-specific vascular models for endovascular and open operative procedures. International Congress Series, 2002, 1247, 129-138.	0.2	3
36	Continuous mixture modeling via goodness-of-fit ridges. Pattern Recognition, 2002, 35, 1821-1833.	5.1	1

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37	Computer-assisted Visualization of Arteriovenous Malformations on the Home Personal Computer. Neurosurgery, 2001, 48, 576-583.	0.6	32
38	Symbolic description of intracerebral vessels segmented from magnetic resonance angiograms and evaluation by comparison with X-ray angiograms. Medical Image Analysis, 2001, 5, 157-169.	7.0	68
39	Radiologistsâ€™ Preferences for Digital Mammographic Display. Radiology, 2000, 216, 820-830.	3.6	78
40	Image Processing Algorithms for Digital Mammography: A Pictorial Essay. Radiographics, 2000, 20, 1479-1491.	1.4	146
41	Registration of 3D cerebral vessels with 2D digital angiograms: Clinical evaluation. Academic Radiology, 1999, 6, 539-546.	1.3	27