Bernard Chiu

List of Publications by Year
in descending order

72	1,086	471061 17	500791 28
papers	citations	h-index	g-index

75	75	75	1054
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Three-dimensional Ultrasound Quantification of Intensive Statin Treatment of Carotid Atherosclerosis. Ultrasound in Medicine and Biology, 2009, 35, 1763-1772.	0.7	87
2	Evaluation of Segmentation algorithms for Medical Imaging. , 2005, 2005, 7186-9.		86
3	Prostate contouring uncertainty in megavoltage computed tomography images acquired with a helical tomotherapy unit during image-guided radiation therapy. International Journal of Radiation Oncology Biology Physics, 2006, 65, 595-607.	0.4	68
4	Quantification of carotid vessel wall and plaque thickness change using 3D ultrasound images. Medical Physics, 2008, 35, 3691-3710.	1.6	68
5	Prostate segmentation algorithm using dyadic wavelet transform and discrete dynamic contour. Physics in Medicine and Biology, 2004, 49, 4943-4960.	1.6	42
6	Fast prostate segmentation in 3D TRUS images based on continuity constraint using an autoregressive model. Medical Physics, 2007, 34, 4109-4125.	1.6	38
7	Automatic segmentation approach to extracting neonatal cerebral ventricles from 3D ultrasound images. Medical Image Analysis, 2017, 35, 181-191.	7.0	38
8	Mapping Spatial and Temporal Changes in Carotid Atherosclerosis from Three-Dimensional Ultrasound Images. Ultrasound in Medicine and Biology, 2008, 34, 64-72.	0.7	35
9	Area-preserving flattening maps of 3D ultrasound carotid arteries images. Medical Image Analysis, 2008, 12, 676-688.	7.0	28
10	Analysis of carotid lumen surface morphology using three-dimensional ultrasound imaging. Physics in Medicine and Biology, 2009, 54, 1149-1167.	1.6	28
11	Breast lesion classification based on supersonic shear-wave elastography and automated lesion segmentation from B-mode ultrasound images. Computers in Biology and Medicine, 2018, 93, 31-46.	3.9	26
12	Fast plaque burden assessment of the femoral artery using 3D black-blood MRI and automated segmentation. Medical Physics, 2011, 38, 5370-5384.	1.6	24
13	Nonrigid registration of threeâ€dimensional ultrasound and magnetic resonance images of the carotid arteries. Medical Physics, 2009, 36, 373-385.	1.6	22
14	Characterization of Carotid Plaques on 3-Dimensional Ultrasound Imaging by Registration With Multicontrast Magnetic Resonance Imaging. Journal of Ultrasound in Medicine, 2012, 31, 1567-1580.	0.8	22
15	Quantification and visualization of carotid segmentation accuracy and precision using a 2D standardized carotid map. Physics in Medicine and Biology, 2013, 58, 3671-3703.	1.6	21
16	Novel 3D ultrasound image-based biomarkers based on a feature selection from a 2D standardized vessel wall thickness map: a tool for sensitive assessment of therapies for carotid atherosclerosis. Physics in Medicine and Biology, 2013, 58, 5959-5982.	1.6	19
17	3D MR ventricle segmentation in pre-term infants with post-hemorrhagic ventricle dilatation (PHVD) using multi-phase geodesic level-sets. NeuroImage, 2015, 118, 13-25.	2.1	19
18	Trace Ratio Criterion based Discriminative Feature Selection via l2,-norm regularization for supervised learning. Neurocomputing, 2018, 321, 1-16.	3.5	19

#	Article	IF	Citations
19	Magnetic resonance imaging and threeâ€dimensional ultrasound of carotid atherosclerosis: Mapping regional differences. Journal of Magnetic Resonance Imaging, 2009, 29, 901-908.	1.9	18
20	Plaque components segmentation in carotid artery on simultaneous non-contrast angiography and intraplaque hemorrhage imaging using machine learning. Magnetic Resonance Imaging, 2019, 60, 93-100.	1.0	18
21	A â€œTwisting and Bendingâ€•Model-Based Nonrigid Image Registration Technique for 3-D Ultrasound Carotid Images. IEEE Transactions on Medical Imaging, 2008, 27, 1378-1388.	5.4	17
22	Deep-recursive residual network for image semantic segmentation. Neural Computing and Applications, 2020, 32, 12935-12947.	3.2	17
23	Conformal mapping of carotid vessel wall and plaque thickness measured from 3D ultrasound images. Medical and Biological Engineering and Computing, 2017, 55, 2183-2195.	1.6	16
24	Sensitive threeâ€dimensional ultrasound assessment of carotid atherosclerosis by weighted average of local vessel wall and plaque thickness change. Medical Physics, 2017, 44, 5280-5292.	1.6	15
25	Area-Preserving Mapping of 3D Carotid Ultrasound Images Using Density-Equalizing Reference Map. IEEE Transactions on Biomedical Engineering, 2020, 67, 2507-2517.	2.5	15
26	Development of 3D ultrasound techniques for carotid artery disease assessment and monitoring. International Journal of Computer Assisted Radiology and Surgery, 2008, 3, 1-10.	1.7	14
27	Simulation Study of an Ultrasound Retinal Prosthesis With a Novel Contact-Lens Array for Noninvasive Retinal Stimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 1605-1611.	2.7	14
28	Carotid plaque segmentation from three-dimensional ultrasound images by direct three-dimensional sparse field level-set optimization. Computers in Biology and Medicine, 2018, 94, 27-40.	3.9	14
29	Segmentation of 3D ultrasound carotid vessel wall using U-Net and segmentation average network. , 2020, 2020, 2043-2046.		13
30	Cascaded Triplanar Autoencoder M-Net for Fully Automatic Segmentation of Left Ventricle Myocardial Scar From Three-Dimensional Late Gadolinium-Enhanced MR Images. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 2582-2593.	3.9	13
31	Three-dimensional ultrasound evaluation of the effects of pomegranate therapy on carotid plaque texture using locality preserving projection. Computer Methods and Programs in Biomedicine, 2020, 184, 105276.	2.6	12
32	Segmentation of common and internal carotid arteries from 3D ultrasound images based on adaptive triple loss. Medical Physics, 2021, 48, 5096-5114.	1.6	12
33	Multilabel Classification With Group-Based Mapping: A Framework With Local Feature Selection and Local Label Correlation. IEEE Transactions on Cybernetics, 2022, 52, 4596-4610.	6.2	12
34	Longitudinal assessment of carotid plaque texture in three-dimensional ultrasound images based on semi-supervised graph-based dimensionality reduction and feature selection. Computers in Biology and Medicine, 2020, 116, 103586.	3.9	11
35	Quantification of carotid vessel atherosclerosis. , 2006, 6143, 85.		10
36	A framework for the co-registration of hemodynamic forces and atherosclerotic plaque components. Physiological Measurement, 2013, 34, 977-990.	1.2	10

#	Article	IF	Citations
37	Fully automatic prostate segmentation from transrectal ultrasound images based on radial bas-relief initialization and slice-based propagation. Computers in Biology and Medicine, 2016, 74, 74-90.	3.9	10
38	Three-dimensional ultrasound assessment of effects of therapies on carotid atherosclerosis using vessel wall thickness maps. Ultrasound in Medicine and Biology, 2021, 47, 2502-2513.	0.7	10
39	Quantification of progression and regression of carotid vessel atherosclerosis using 3D ultrasound images. , 2006, 2006, 3819-22.		9
40	Three-Dimensional Carotid Ultrasound Segmentation Variability Dependence on Signal Difference and Boundary Orientation. Ultrasound in Medicine and Biology, 2010, 36, 95-110.	0.7	9
41	Vessel wall segmentation of common carotid artery via multi-branch light network. , 2020, , .		9
42	Joint segmentation of lumen and outer wall from femoral artery MR images: Towards 3D imaging measurements of peripheral arterial disease. Medical Image Analysis, 2015, 26, 120-132.	7.0	8
43	Correspondence optimization in 2D standardized carotid wall thickness map by description length minimization: A tool for increasing reproducibility of 3D ultrasoundâ€based measurements. Medical Physics, 2016, 43, 6474-6490.	1.6	8
44	Longitudinal Analysis of Pre-Term Neonatal Cerebral Ventricles From 3D Ultrasound Images Using Spatial-Temporal Deformable Registration. IEEE Transactions on Medical Imaging, 2017, 36, 1016-1026.	5.4	8
45	Three-dimensional ultrasound measurements of carotid vessel wall and plaque thickness and their relationship with pulmonary abnormalities in ex-smokers without airflow limitation. International Journal of Cardiovascular Imaging, 2016, 32, 1391-1402.	0.7	7
46	Concise biomarker for spatialâ€“temporal change in three-dimensional ultrasound measurement of carotid vessel wall and plaque thickness based on a graph-based random walk framework: Towards sensitive evaluation of response to therapy. Computers in Biology and Medicine, 2016, 79, 149-162.	3.9	6
47	Modeling hemodynamic forces in carotid artery based on local geometric features. Medical and Biological Engineering and Computing, 2016, 54, 1437-1452.	1.6	6
48	Prostate lesion delineation from multiparametric magnetic resonance imaging based on locality alignment discriminant analysis. Medical Physics, 2018, 45, 4607-4618.	1.6	6
49	Assessment of femoral artery atherosclerosis at the adductor canal using 3D black-blood MRI. Clinical Radiology, 2013, 68, e213-e221.	0.5	5
50	Fast segmentation of the femoral arteries from 3D MR images: A tool for rapid assessment of peripheral arterial disease. Medical Physics, 2015, 42, 2431-2448.	1.6	5
51	Automatic prostate segmentation from transrectal ultrasound images. , 2014, , .		4
52	3D Carotid Ultrasound Imaging. , 2011, , 325-350.		4
53	A surface-based metric for registration error quantification. , 2009, , .		3
54	Accurate quantification of local changes for carotid arteries in 3D ultrasound images using convex optimization-based deformable registration. Proceedings of SPIE, 2016, , .	0.8	3

#	Article	IF	Citations
55	Prostate lesion detection and localization based on locality alignment discriminant analysis. Proceedings of SPIE, 2017, , .	0.8	3
56	A self-tuned graph-based framework for localization and grading prostate cancer lesions: An initial evaluation based on multiparametric magnetic resonance imaging. Computers in Biology and Medicine, 2018, 96, 252-265.	3.9	3
57	Nonrigid registration of carotid ultrasound and MR images using a "twisting and bending" model. , 2008, , .		2
58	Correlation of hemodynamic forces and atherosclerotic plaque components. , 2010, , .		2
59	AWM: Adaptive Weight Matting for medical image segmentation. , 2017, , .		2
60	Identification of Retinal Ganglion Cells from Î²-III Stained Fluorescent Microscopic Images. Journal of Digital Imaging, 2020, 33, 1352-1363.	1.6	2
61	Joint Segmentation of 3D Femoral Lumen and Outer Wall Surfaces from MR Images. Lecture Notes in Computer Science, 2013, 16, 534-541.	1.0	2
62	Relationships between local geometrical features and hemodynamic flow properties. , 2013, 2013, 723-6.		1
63	A framework for quantification and visualization of segmentation accuracy and variability in 3D lateral ventricle ultrasound images of preterm neonates. Medical Physics, 2015, 42, 6387-6405.	1.6	1
64	Quantification of cerebral ventricle volume change of preterm neonates using 3D ultrasound images. , 2015, , .		1
65	Quantification of carotid arteries atherosclerosis using 3D ultrasound images and area-preserving flattened maps. Proceedings of SPIE, 2008, , .	0.8	0
66	Optimal processing of isotropic 3D black-blood MRI For accurate estimation of vessel wall thickness. , 2010, , .		0
67	3D MR ventricle segmentation in pre-term infants with post-hemorrhagic ventricle dilation. Proceedings of SPIE, 2015, , .	0.8	0
68	Feasibility of Multiple Micro-Particle Trappingâ€"A Simulation Study. Sensors, 2015, 15, 4958-4974.	2.1	0
69	Direct 3D segmentation of carotid plaques from 3D ultrasound images. , 2016, , .		0
70	A Graph-Based Multi-kernel Feature Weight Learning Framework for Detection and Grading of Prostate Lesions Using Multi-parametric MR Images. , 2017, , .		0
71	Carotid Plaque Surface Irregularity. , 2011, , 279-297.		0
72	Quantification of progression and regression of carotid vessel atherosclerosis using 3D ultrasound images. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0