Sandy Napel

List of Publications by Year
in descending order

128 papers	10,696 citations	50170 46 h-index	32761 100 g-index
129 all docs	129 docs citations	129 times ranked	10599 citing authors

#	ARTICLE	IF	CITATIONS
1	The Image Biomarker Standardization Initiative: Standardized Quantitative Radiomics for High-Throughput Image-based Phenotyping. Radiology, 2020, 295, 328-338.	3.6	1,869
2	Deep Learning Techniques for Automatic MRI Cardiac Multi-Structures Segmentation and Diagnosis: Is the Problem Solved?. IEEE Transactions on Medical Imaging, 2018, 37, 2514-2525.	5.4	926
3	Comparison and Evaluation of Retrospective Intermodality Brain Image Registration Techniques. Journal of Computer Assisted Tomography, 1997, 21, 554-568.	0.5	743
4	Non–Small Cell Lung Cancer: Identifying Prognostic Imaging Biomarkers by Leveraging Public Gene Expression Microarray Data—Methods and Preliminary Results. Radiology, 2012, 264, 387-396.	3.6	384
5	Content-Based Image Retrieval in Radiology: Current Status and Future Directions. Journal of Digital Imaging, 2011, 24, 208-222.	1.6	321
6	Radiomics in Brain Tumor: Image Assessment, Quantitative Feature Descriptors, and Machine-Learning Approaches. American Journal of Neuroradiology, 2018, 39, 208-216.	1.2	281
7	Glioblastoma Multiforme: Exploratory Radiogenomic Analysis by Using Quantitative Image Features. Radiology, 2014, 273, 168-174.	3.6	265
8	Characterization of Spatial Distortion in Magnetic Resonance Imaging and Its Implications for Stereotactic Surgery. Neurosurgery, 1994, 35, 696-704.	0.6	257
9	The Medical Segmentation Decathlon. Nature Communications, 2022, 13, .	5.8	252
10	Pulmonary Nodules on Multi–Detector Row CT Scans: Performance Comparison of Radiologists and Computer-aided Detection. Radiology, 2005, 234, 274-283.	3.6	244
11	Magnetic resonance image features identify glioblastoma phenotypic subtypes with distinct molecular pathway activities. Science Translational Medicine, 2015, 7, 303ra138.	5.8	227
12	Surface Normal Overlap: A Computer-Aided Detection Algorithm With Application to Colonic Polyps and Lung Nodules in Helical CT. IEEE Transactions on Medical Imaging, 2004, 23, 661-675.	5.4	221
13	Automated Polyp Detector for CT Colonography: Feasibility Study. Radiology, 2000, 216, 284-290.	3.6	214
14	A radiogenomic dataset of non-small cell lung cancer. Scientific Data, 2018, 5, 180202.	2.4	167
15	Adaptive border marching algorithm: Automatic lung segmentation on chest CT images. Computerized Medical Imaging and Graphics, 2008, 32, 452-462.	3.5	164
16	Automated flight path planning for virtual endoscopy. Medical Physics, 1998, 25, 629-637.	1.6	145
17	Non–Small Cell Lung Cancer Radiogenomics Map Identifies Relationships between Molecular and Imaging Phenotypes with Prognostic Implications. Radiology, 2018, 286, 307-315.	3.6	140
18	Quantifying MRI geometric distortion in tissue. Magnetic Resonance in Medicine, 1994, 31, 40-47.	1.9	125

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19	Quantitative imaging of cancer in the postgenomic era: Radio(geno)mics, deep learning, and habitats. Cancer, 2018, 124, 4633-4649.	2.0	125
20	Predictive radiogenomics modeling of EGFR mutation status in lung cancer. Scientific Reports, 2017, 7, 41674.	1.6	124
21	Display Modes for CT Colonography. Radiology, 1999, 212, 203-212.	3.6	117
22	Prognostic PET 18F-FDG Uptake Imaging Features Are Associated with Major Oncogenomic Alterations in Patients with Resected Non–Small Cell Lung Cancer. Cancer Research, 2012, 72, 3725-3734.	0.4	111
23	Radiomics of Lung Nodules: A Multi-Institutional Study of Robustness and Agreement of Quantitative Imaging Features. Tomography, 2016, 2, 430-437.	0.8	108
24	Visualizing three-dimensional flow with simulated streamlines and three-dimensional phase-contrast MR imaging. Journal of Magnetic Resonance Imaging, 1992, 2, 143-153.	1.9	103
25	Intratumoral Spatial Heterogeneity at Perfusion MR Imaging Predicts Recurrence-free Survival in Locally Advanced Breast Cancer Treated with Neoadjuvant Chemotherapy. Radiology, 2018, 288, 26-35.	3.6	102
26	CT Angiography after 20 Years: A Transformation in Cardiovascular Disease Characterization Continues to Advance. Radiology, 2014, 271, 633-652.	3.6	98
27	Stair-Step Artifacts with Single versus Multiple Detector-Row Helical CT. Radiology, 2000, 216, 185-196.	3.6	95
28	Heterogeneous Enhancement Patterns of Tumor-adjacent Parenchyma at MR Imaging Are Associated with Dysregulated Signaling Pathways and Poor Survival in Breast Cancer. Radiology, 2017, 285, 401-413.	3.6	92
29	Edge displacement field-based classification for improved detection of polyps in CT colonography. IEEE Transactions on Medical Imaging, 2002, 21, 1461-1467.	5.4	86
30	Dual-energy CT Discrimination of Iodine and Calcium. Academic Radiology, 2009, 16, 160-171.	1.3	82
31	Visualization Modes for CT Colonography Using Cylindrical and Planar Map Projections. Journal of Computer Assisted Tomography, 2000, 24, 179-188.	0.5	81
32	Characterizing Search, Recognition, and Decision in the Detection of Lung Nodules on CT Scans: Elucidation with Eye Tracking. Radiology, 2015, 274, 276-286.	3.6	77
33	<i>GFPT2</i>-Expressing Cancer-Associated Fibroblasts Mediate Metabolic Reprogramming in Human Lung Adenocarcinoma. Cancer Research, 2018, 78, 3445-3457.	0.4	75
34	Robust Intratumor Partitioning to Identify High-Risk Subregions in Lung Cancer: A Pilot Study. International Journal of Radiation Oncology Biology Physics, 2016, 95, 1504-1512.	0.4	71
35	NCI Workshop Report: Clinical and Computational Requirements for Correlating Imaging Phenotypes with Genomics Signatures. Translational Oncology, 2014, 7, 556-569.	1.7	69
36	A Comparison of Lung Nodule Segmentation Algorithms: Methods and Results from a Multi-institutional Study. Journal of Digital Imaging, 2016, 29, 476-487.	1.6	68

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37	Computed Tomography Colonography. Journal of Computer Assisted Tomography, 2004, 28, 318-326.	0.5	64
38	Computer-aided detection (CAD) of lung nodules in CT scans: radiologist performance and reading time with incremental CAD assistance. European Radiology, 2010, 20, 549-557.	2.3	62
39	An abdominal aortic aneurysm segmentation method: Level set with region and statistical information. Medical Physics, 2006, 33, 1440-1453.	1.6	60
40	Virtual Endoscopy of the Paranasal Sinuses Using Perspective Volume Rendered Helical Sinus Computed Tomography. Laryngoscope, 1997, 107, 25-29.	1.1	59
41	Adaptive local window for level set segmentation of CT and MRI liver lesions. Medical Image Analysis, 2017, 37, 46-55.	7.0	59
42	Noninvasive radiomics signature based on quantitative analysis of computed tomography images as a surrogate for microvascular invasion in hepatocellular carcinoma: a pilot study. Journal of Medical Imaging, 2017, 4, 1.	0.8	57
43	Automatic detection and classification of hypodense hepatic lesions on contrast-enhanced venous-phase CT. Medical Physics, 2004, 31, 2584-2593.	1.6	56
44	A shallow convolutional neural network predicts prognosis of lung cancer patients in multi-institutional computed tomography image datasets. Nature Machine Intelligence, 2020, 2, 274-282.	8.3	54
45	Mr geometric distortion correction for improved frame-based stereotaxic target localization accuracy. Magnetic Resonance in Medicine, 1995, 34, 106-113.	1.9	52
46	Automated Generation of Curved Planar Reformations from Volume Data: Method and Evaluation. Radiology, 2002, 223, 275-280.	3.6	51
47	Core samples for radiomics features that are insensitive to tumor segmentation: method and pilot study using CT images of hepatocellular carcinoma. Journal of Medical Imaging, 2015, 2, 041011.	0.8	50
48	Stability and reproducibility of computed tomography radiomic features extracted from peritumoral regions of lung cancer lesions. Medical Physics, 2019, 46, 5075-5085.	1.6	49
49	Bone Marrow and Tumor Radiomics at ^{18}F-FDG PET/CT: Impact on Outcome Prediction in Non–Small Cell Lung Cancer. Radiology, 2019, 293, 451-459.	3.6	48
50	Noise reduction in three-dimensional phase-contrast MR velocity measurementsl. Journal of Magnetic Resonance Imaging, 1993, 3, 587-596.	1.9	45
51	Cost Identification of Abdominal Aortic Aneurysm Imaging by Using Time and Motion Analyses. Radiology, 2000, 215, 63-70.	3.6	45
52	Detection of Colonic Polyps in a Phantom Model: Implications for Virtual Colonoscopy Data Acquisition. Journal of Computer Assisted Tomography, 1998, 22, 656-663.	0.5	45
53	Magnetic resonance imaging and molecular features associated with tumor-infiltrating lymphocytes in breast cancer. Breast Cancer Research, 2018, 20, 101.	2.2	44
54	Registration of central paths and colonic polyps between supine and prone scans in computed tomography colonography: Pilot study. Medical Physics, 2004, 31, 2912-2923.	1.6	42

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55	Predicting Visual Semantic Descriptive Terms From Radiological Image Data: Preliminary Results With Liver Lesions in CT. IEEE Transactions on Medical Imaging, 2014, 33, 1669-1676.	5.4	40
56	On combining image-based and ontological semantic dissimilarities for medical image retrieval applications. Medical Image Analysis, 2014, 18, 1082-1100.	7.0	40
57	Fast 3D Cardiac Cine MR Imaging. Journal of Magnetic Resonance Imaging, 1999, 9, 751-755.	1.9	39
58	Quantitative Image Feature Engine (QIFE): an Open-Source, Modular Engine for 3D Quantitative Feature Extraction from Volumetric Medical Images. Journal of Digital Imaging, 2018, 31, 403-414.	1.6	39
59	Prediction of Aortoiliac Stent-Graft Length: Comparison of Measurement Methods. Radiology, 2001, 220, 475-483.	3.6	37
60	Display Modes for CT Colonography. Radiology, 1999, 212, 195-201.	3.6	35
61	Registration error quantification of a surface-based multimodality image fusion system. Medical Physics, 1995, 22, 1049-1056.	1.6	34
62	A hierarchical knowledge-based approach for retrieving similar medical images described with semantic annotations. Journal of Biomedical Informatics, 2014, 49, 227-244.	2.5	33
63	Radiomics Signatures of Cardiovascular Risk Factors in Cardiac MRI: Results From the UK Biobank. Frontiers in Cardiovascular Medicine, 2020, 7, 591368.	1.1	32
64	Prediction of EGFR and KRAS mutation in non-small cell lung cancer using quantitative 18F FDG-PET/CT metrics. Oncotarget, 2017, 8, 52792-52801.	0.8	32
65	Managing Biomedical Image Metadata for Search and Retrieval of Similar Images. Journal of Digital Imaging, 2011, 24, 739-748.	1.6	29
66	[18F] FDG Positron Emission Tomography (PET) Tumor and Penumbra Imaging Features Predict Recurrence in Non–Small Cell Lung Cancer. Tomography, 2019, 5, 145-153.	0.8	29
67	Curved-Slab Maximum Intensity Projection: Method and Evaluation. Radiology, 2003, 229, 255-260.	3.6	28
68	Quantifying the margin sharpness of lesions on radiological images for content–based image retrieval. Medical Physics, 2012, 39, 5405-5418.	1.6	28
69	A Comprehensive Descriptor of Shape: Method and Application to Content-Based Retrieval of Similar Appearing Lesions in Medical Images. Journal of Digital Imaging, 2012, 25, 121-128.	1.6	27
70	CT Colonography: Influence of 3D Viewing and Polyp Candidate Features on Interpretation with Computer-aided Detection. Radiology, 2006, 239, 768-776.	3.6	26
71	Alternative Input Devices for Efficient Navigation of Large CT Angiography Data Sets. Radiology, 2005, 234, 391-398.	3.6	24
72	Polyp Enhancing Level Set Evolution of Colon Wall: Method and Pilot Study. IEEE Transactions on Medical Imaging, 2007, 26, 1649-1656.	5.4	23

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73	Spatially varying longitudinal aliasing and resolution in spiral computed tomography. Medical Physics, 1999, 26, 2617-2625.	1.6	22
74	Single Breath-Hold Pulmonary Magnetic Resonance Angiography. Investigative Radiology, 1994, 29, 766-772.	3.5	21
75	Modeling of polychromatic attenuation using computed tomography reconstructed images. Medical Physics, 1999, 26, 631-642.	1.6	20
76	A Rapid Segmentation-Insensitive â€œDigital Biopsyâ€•Method for Radiomic Feature Extraction: Method and Pilot Study Using CT Images of Nonâ€"Small Cell Lung Cancer. Tomography, 2016, 2, 283-294.	0.8	20
77	Fast Fourier projection for MR angiography. Magnetic Resonance in Medicine, 1991, 19, 393-405.	1.9	19
78	Method for correcting magnetic resonance image distortion for frame-based stereotactic surgery, with preliminary results. Journal of Image Guided Surgery, 1995, 1, 151-157.	0.4	19
79	Quantitative imaging feature pipeline: a web-based tool for utilizing, sharing, and building image-processing pipelines. Journal of Medical Imaging, 2020, 7, 1.	0.8	19
80	"Flying through" and "flying around" a PET/CT scan: Pilot study and development of 3D integrated 18F-FDG PET/CT for virtual bronchoscopy and colonoscopy. Journal of Nuclear Medicine, 2006, 47, 1081-7.	2.8	19
81	Special Section Guest Editorial:Radiomics and Imaging Genomics: Quantitative Imaging for Precision Medicine. Journal of Medical Imaging, 2015, 2, 041001.	0.8	17
82	Semiâ€automated pulmonary nodule interval segmentation using the <scp>NLST</scp> data. Medical Physics, 2018, 45, 1093-1107.	1.6	17
83	Measurement of Cardiac Output by Computed Transmission Tomography. Investigative Radiology, 1982, 17, 550-553.	3.5	16
84	Targeted 2D/3D registration using ray normalization and a hybrid optimizer. Medical Physics, 2006, 33, 4730-4738.	1.6	16
85	The utility of three-dimensional models in complex microsurgical reconstruction. Archives of Plastic Surgery, 2020, 47, 428-434.	0.4	16
86	Automated temporal tracking and segmentation of lymphoma on serial CT examinations. Medical Physics, 2011, 38, 5879-5886.	1.6	15
87	Variations in the functional visual field for detection of lung nodules on chest computed tomography: Impact of nodule size, distance, and local lung complexity. Medical Physics, 2017, 44, 3483-3490.	1.6	15
88	MRI-based radiomics for prognosis of pediatric diffuse intrinsic pontine glioma: an international study. Neuro-Oncology Advances, 2021, 3, vdab042.	0.4	14
89	Lung Nodule Malignancy Prediction in Sequential CT Scans: Summary of ISBI 2018 Challenge. IEEE Transactions on Medical Imaging, 2021, 40, 3748-3761.	5.4	13
90	Stanford DRO Toolkit: Digital Reference Objects for Standardization of Radiomic Features. Tomography, 2020, 6, 111-117.	0.8	13

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91	Learning-enhanced simulated annealing: method, evaluation, and application to lung nodule registration. Applied Intelligence, 2008, 28, 83-99.	3.3	12
92	Content-based image retrieval in radiology: analysis of variability in human perception of similarity. Journal of Medical Imaging, 2015, 2, 025501.	0.8	12
93	Quantification of Distention in CT Colonography: Development and Validation of Three Computer Algorithms. Radiology, 2002, 222, 543-554.	3.6	11
94	A Radiomics Approach to Analyze Cardiac Alterations in Hypertension. , 2019, , .		11
95	Registration of lung nodules using a semi-rigid model: Method and preliminary results. Medical Physics, 2007, 34, 613-626.	1.6	10
96	CT colonography: Does improvedzresolution help computer-aided polyp detection?. Medical Physics, 2003, 30, 2663-2674.	1.6	9
97	On the Feasibility of Predicting Radiological Observations from Computational Imaging Features of Liver Lesions in CT Scans. , 2011, , .		9
98	A versatile system for multimodality image fusion. Journal of Image Guided Surgery, 1995, 1, 35-45.	0.4	9
99	Semiautomated Quantification of the Mass and Distribution of Vascular Calcification with Multidetector CT: Method and Evaluation. Radiology, 2008, 247, 241-250.	3.6	8
100	Lower Extremity CT Angiography (CTA). Academic Radiology, 2009, 16, 646-653.	1.3	8
101	Accuracy of a Remote Eye Tracker for Radiologic Observer Studies. Academic Radiology, 2012, 19, 196-202.	1.3	8
102	Radiogenomics is the future of treatment response assessment in clinical oncology. Medical Physics, 2018, 45, 4325-4328.	1.6	8
103	Machine learning approach to differentiation of peripheral schwannomas and neurofibromas: A multi-center study. Neuro-Oncology, 2022, 24, 601-609.	0.6	8
104	Knowledge-based interpolation of curves: Application to femoropopliteal arterial centerline restoration. Medical Image Analysis, 2007, 11, 157-168.	7.0	7
105	Uncluttered single‐image visualization of the abdominal aortic vessel tree: Method and evaluation. Medical Physics, 2009, 36, 5245-5260.	1.6	7
106	Automated Quantification of Aortoaortic and Aortoiliac Angulation for Computed Tomographic Angiography of Abdominal Aortic Aneurysms before Endovascular Repair: Preliminary Study. Journal of Vascular and Interventional Radiology, 2010, 21, 1746-1750.	0.2	7
107	Modeling Perceptual Similarity Measures in CT Images of Focal Liver Lesions. Journal of Digital Imaging, 2013, 26, 714-720.	1.6	7
108	Interreader Variability in Semantic Annotation of Microvascular Invasion in Hepatocellular Carcinoma on Contrast-enhanced Triphasic CT Images. Radiology Imaging Cancer, 2020, 2, e190062.	0.7	7

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109	Machine Learning Radiomics Model for Early Identification of Small-Cell Lung Cancer on Computed Tomography Scans. JCO Clinical Cancer Informatics, 2021, 5, 746-757.	1.0	7
110	Machine-Learning Approach to Differentiation of Benign and Malignant Peripheral Nerve Sheath Tumors: A Multicenter Study. Neurosurgery, 2021, 89, 509-517.	0.6	7
111	A new frame-based registration algorithm. Medical Physics, 1998, 25, 121-128.	1.6	6
112	Carotid Disease: Automated Analysis with Cardiac-gated Three-dimensional USâ€"Technique and Preliminary Results. Radiology, 2002, 222, 560-563.	3.6	6
113	Improved Speed of Bone Removal in Computed Tomographic Angiography Using Automated Targeted Morphological Separation. Journal of Computer Assisted Tomography, 2008, 32, 485-491.	0.5	6
114	Automated Tracing of the Adventitial Contour of Aortoiliac and Peripheral Arterial Walls in CT Angiography (CTA) to Allow Calculation of Non-calcified Plaque Burden. Journal of Digital Imaging, 2011, 24, 1078-1086.	1.6	6
115	Assessing operating characteristics of CAD algorithms in the absence of a gold standard. Medical Physics, 2010, 37, 1788-1795.	1.6	5
116	Femoropopliteal artery centerline interpolation using contralateral shape. Medical Physics, 2007, 34, 3428-3435.	1.6	3
117	Quantitative image features from radiomic biopsy differentiate oncocytoma from chromophobe renal cell carcinoma. Journal of Medical Imaging, 2021, 8, 054501.	0.8	3
118	A Versatile System for Multimodality Image Fusion. Computer Aided Surgery, 1995, 1, 35-45.	1.8	2
119	Computed tomography and magnetic resonance colonography (Virtual colonoscopy). Techniques in Gastrointestinal Endoscopy, 2000, 2, 30-36.	0.3	2
120	Artifacts and illusions in surface and volume rendering. , 1992, , .		1
121	Method for Correcting Magnetic Resonance Image Distortion for Frame-Based Stereotactic Surgery, with Preliminary Results. Computer Aided Surgery, 1995, 1, 151-157.	1.8	1
122	A directional distance aided method for medical image segmentation. Medical Physics, 2007, 34, 4962-4976.	1.6	1
123	An improved algorithm for femoropopliteal artery centerline restoration using prior knowledge of shapes and image space data. Medical Physics, 2008, 35, 3372-3382.	1.6	1
124	Deep Learning Techniques for Automatic MRI Cardiac Multi-Structures Segmentation and Diagnosis: Is the Problem Solved?. , 0, .		1
125	Semiautomated segmentation of blood vessels using ellipse-overlap criteria: Method and comparison to manual editing. Medical Physics, 2003, 30, 2572-2583.	1.6	0
126	Transparent Rendering of Intraluminal Contrast for 3D Polyp Visualization at CT Colonography. Journal of Computer Assisted Tomography, 2007, 31, 773-779.	0.5	0

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127	Pipelines in Image Analysis. , 2021, , 1-16.		0
128	Radiomic features quantifying pixel-level characteristics of breast tumors from magnetic resonance imaging predict risk factors in triple-negative breast cancer.. Journal of Clinical Oncology, 2022, 40, e12612-e12612.	0.8	0