David J Hawkes

List of Publications by Year
in descending order

69 papers	**1,352** citations	304743 **22** h-index	377865 **34** g-index
70 all docs	**70** docs citations	**70** times ranked	**2420** citing authors

#	Article	IF	Citations
1	The PICTURE study: diagnostic accuracy of multiparametric MRI in men requiring a repeat prostate biopsy. British Journal of Cancer, 2017, 116, 1159-1165.	6.4	90
2	Alignment of sparse freehand 3-D ultrasound with preoperative images of the liver using models of respiratory motion and deformation. IEEE Transactions on Medical Imaging, 2005, 24, 1405-1416.	8.9	88
3	The SmartTarget Biopsy Trial: A Prospective, Within-person Randomised, Blinded Trial Comparing the Accuracy of Visual-registration and Magnetic Resonance Imaging/Ultrasound Image-fusion Targeted Biopsies for Prostate Cancer Risk Stratification. European Urology, 2019, 75, 733-740.	1.9	67
4	Disease Progression Modeling in Chronic Obstructive Pulmonary Disease. American Journal of Respiratory and Critical Care Medicine, 2020, 201, 294-302.	5.6	56
5	Towards a Computed-Aided Diagnosis System in Colonoscopy: Automatic Polyp Segmentation Using Convolution Neural Networks. Journal of Medical Robotics Research, 2018, 03, 1840002.	1.2	52
6	VERDICT MRI for Prostate Cancer: Intracellular Volume Fraction versus Apparent Diffusion Coefficient. Radiology, 2019, 291, 391-397.	7.3	52
7	A Validated Multiscale In-Silico Model for Mechano-sensitive Tumour Angiogenesis and Growth. PLoS Computational Biology, 2017, 13, e1005259.	3.2	45
8	The challenges of deploying artificial intelligence models in a rapidly evolving pandemic. Nature Machine Intelligence, 2020, 2, 298-300.	16.0	45
9	Combined 2D and 3D tracking of surgical instruments for minimally invasive and robotic-assisted surgery. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1109-1119.	2.8	44
10	In vivo estimation of target registration errors during augmented reality laparoscopic surgery. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 865-874.	2.8	38
11	Accuracy of Transperineal Targeted Prostate Biopsies, Visual Estimation and Image Fusion in Men Needing Repeat Biopsy in the PICTURE Trial. Journal of Urology, 2018, 200, 1227-1234.	0.4	38
12	Multiscale Mechano-Biological Finite Element Modelling of Oncoplastic Breast Surgery—Numerical Study towards Surgical Planning and Cosmetic Outcome Prediction. PLoS ONE, 2016, 11, e0159766.	2.5	37
13	MRI to X-ray mammography intensity-based registration with simultaneous optimisation of pose and biomechanical transformation parameters. Medical Image Analysis, 2014, 18, 674-683.	11.6	36
14	Hand–eye calibration for rigid laparoscopes using an invariant point. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1071-1080.	2.8	36
15	Novel approaches to the measurement of arterial blood flow from dynamic digital X-ray images. IEEE Transactions on Medical Imaging, 2005, 24, 500-513.	8.9	33
16	Locally rigid, vessel-based registration for laparoscopic liver surgery. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 1951-1961.	2.8	32
17	A hybrid patient-specific biomechanical model based image registration method for the motion estimation of lungs. Medical Image Analysis, 2017, 39, 87-100.	11.6	32
18	Tumour auto-contouring on 2d cine MRI for locally advanced lung cancer: A comparative study. Radiotherapy and Oncology, 2017, 125, 485-491.	0.6	30

#	ARTICLE	IF	CITATIONS
19	Global rigid registration of CT to video in laparoscopic liver surgery. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 947-956.	2.8	29
20	Microstructural models for diffusion MRI in breast cancer and surrounding stroma: an *ex vivo* study. NMR in Biomedicine, 2017, 30, e3679.	2.8	27
21	Apparatus for Histological Validation of In Vivo and Ex Vivo Magnetic Resonance Imaging of the Human Prostate. Frontiers in Oncology, 2017, 7, 47.	2.8	27
22	Symmetric Biomechanically Guided Prone-to-Supine Breast Image Registration. Annals of Biomedical Engineering, 2016, 44, 154-173.	2.5	24
23	Breast MRI segmentation for density estimation: Do different methods give the same results and how much do differences matter?. Medical Physics, 2017, 44, 4573-4592.	3.0	23
24	VERDICT MRI validation in fresh and fixed prostate specimens using patientâ€‐specific moulds for histological and MR alignment. NMR in Biomedicine, 2019, 32, e4073.	2.8	22
25	An Inverse Finite Element u/p-Formulation to Predict the Unloaded State of In Vivo Biological Soft Tissues. Annals of Biomedical Engineering, 2016, 44, 187-201.	2.5	21
26	Performance of image guided navigation in laparoscopic liver surgery â€" A systematic review. Surgical Oncology, 2021, 38, 101637.	1.6	19
27	Biomechanically guided prone-to-supine image registration of breast MRI using an estimated reference state. , 2013, , .		18
28	3D volume reconstruction from serial breast specimen radiographs for mapping between histology and 3D whole specimen imaging. Medical Physics, 2017, 44, 935-948.	3.0	18
29	Long term radiological features of radiation-induced lung damage. Radiotherapy and Oncology, 2018, 126, 300-306.	0.6	18
30	Multiscale modelling of solid tumour growth: the effect of collagen micromechanics. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1079-1090.	2.8	16
31	Intelligent viewpoint selection for efficient CT to video registration in laparoscopic liver surgery. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1079-1088.	2.8	16
32	Fourier Methods for Nonparametric Image Registration. , 2007, , .		15
33	Consistency of parametric registration in serial MRI studies of brain tumor progression. International Journal of Computer Assisted Radiology and Surgery, 2008, 3, 201-211.	2.8	15
34	Demons algorithms for fluid and curvature registration. , 2009, , .		15
35	Revisiting overlap invariance in medical image alignment. , 2008, , .		14
36	Pre-natal exposures and breast tissue composition: findings from a British pre-birth cohort of young women and a systematic review. Breast Cancer Research, 2016, 18, 102.	5.0	14

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37	Identification of liver metastases with probe‐based confocal laser endomicroscopy at two excitation wavelengths. Lasers in Surgery and Medicine, 2017, 49, 280-292.	2.1	12
38	Evaluation of MRI-derived surrogate signals to model respiratory motion. Biomedical Physics and Engineering Express, 2020, 6, 045015.	1.2	12
39	Automatic, global registration in laparoscopic liver surgery. International Journal of Computer Assisted Radiology and Surgery, 2022, 17, 167-176.	2.8	12
40	Registration-based propagation for whole heart segmentation from compounded 3D echocardiography. , 2010, , .		11
41	A pre-operative planning framework for global registration of laparoscopic ultrasound to CT images. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 1177-1186.	2.8	11
42	Utilizing confocal laser endomicroscopy for evaluating the adequacy of laparoscopic liver ablation. Lasers in Surgery and Medicine, 2016, 48, 299-310.	2.1	10
43	Multiscale biphasic modelling of peritumoural collagen microstructure: The effect of tumour growth on permeability and fluid flow. PLoS ONE, 2017, 12, e0184511.	2.5	10
44	Immunohistochemical biomarker validation in highly selective needle biopsy microarrays derived from mpMRI‐characterized prostates. Prostate, 2018, 78, 1229-1237.	2.3	9
45	Microstructure Characterization of Bone Metastases from Prostate Cancer with Diffusion MRI: Preliminary Findings. Frontiers in Oncology, 2018, 8, 26.	2.8	9
46	Novel CT-Based Objective Imaging Biomarkers of Long-Term Radiation-Induced Lung Damage. International Journal of Radiation Oncology Biology Physics, 2018, 102, 1287-1298.	0.8	7
47	Growth Trajectories, Breast Size, and Breast-Tissue Composition in a British Prebirth Cohort of Young Women. American Journal of Epidemiology, 2018, 187, 1259-1268.	3.4	6
48	Thoracic Imaging at Exacerbation of Chronic Obstructive Pulmonary Disease: A Systematic Review . International Journal of COPD, 2020, Volume 15, 1751-1787.	2.3	5
49	Computational Models In Image Guided Interventions. , 2005, 2005, 7246-9.		4
50	Motion modelling and motion compensated reconstruction of tumours in cone-beam computed tomography. , 2012, , .		4
51	From clinical imaging and computational models to personalised medicine and image guided interventions. Medical Image Analysis, 2016, 33, 50-55.	11.6	4
52	Circulating Growth and Sex Hormone Levels and Breast Tissue Composition in Young Nulliparous Women. Cancer Epidemiology Biomarkers and Prevention, 2018, 27, 1500-1508.	2.5	4
53	A critical evaluation of visual proportion of Gleason 4 and maximum cancer core length quantified by histopathologists. Scientific Reports, 2020, 10, 17177.	3.3	4
54	3D ultrasound simulation based on a biomechanical model of prone MRI in breast cancer imaging. , 2015, , .		3

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55	A Probabilistic Method for Estimation of Bowel Wall Thickness in MR Colonography. PLoS ONE, 2017, 12, e0168317.	2.5	3
56	FAST FLUID REGISTRATION WITH DIRICHLET BOUNDARY CONDITIONS: A TRANSFORM-BASED APPROACH. , 2007, , .		2
57	Integrating structural and diffusion MR information for optic radiation localisation in focal epilepsy patients. , 2011, , .		2
58	Intraoperative Image Processing for Surgical Guidance. IEEE Transactions on Medical Imaging, 2005, 24, 1401-1404.	8.9	1
59	Nonrigid registration with differential bias correction using normalised mutual information. , 2010, , .		1
60	Multi-level Multi-task Structured Sparse Learning for Diagnosis of Schizophrenia Disease. Lecture Notes in Computer Science, 2017, 10435, 46-54.	1.3	1
61	Disease progression patterns in COPD. , 2018, , .		1
62	Reproducibility of an airway tapering measurement in computed tomography with application to bronchiectasis. Journal of Medical Imaging, 2019, 6, 1.	1.5	1
63	New Validation Method for Establishing Correspondence Between Pairs of X-Ray Mammograms. , 0, , .		0
64	MOTION AND BIOMECHANICAL MODELS FOR IMAGE-GUIDED INTERVENTIONS. , 2007, , .		0
65	REGISTRATION OF RCBV AND ADC MAPS WITH STRUCTURAL AND PHYSIOLOGICAL MR IMAGES IN GLIOMA PATIENTS: STUDY AND VALIDATION. , 2007, , .		0
66	Quantifying blood flowdivision at bifurcations from rotational angiography. , 2008, , .		0
67	Discretisation of 3D deformation fields: Implications for establishing correspondence between 2D X-ray mammographic projections. , 2011, , .		0
68	Establishing spatial correspondence for the analysis of images from highly deforming anatomy. , 2012, 2012, 3732-5.		0
69	Thoracic Imaging at Exacerbation of Chronic Obstructive Pulmonary Disease: A Systematic Review. , 2020, , .		0