Tom K Vercauteren

List of Publications by Citations

236	8,796	37	90
papers	citations	h-index	g-index
297	11,106	3.9	6.28
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
236	Evaluation of 14 nonlinear deformation algorithms applied to human brain MRI registration. *NeuroImage*, **2009**, 46, 786-802	7.9	1603
235	Diffeomorphic demons: efficient non-parametric image registration. *NeuroImage*, **2009**, 45, S61-72	7.9	935
234	Generalised Dice Overlap as a Deep Learning Loss Function for Highly Unbalanced Segmentations. *Lecture Notes in Computer Science*, **2017**, 2017, 240-248	0.9	547
233	Evaluation of registration methods on thoracic CT: the EMPIRE10 challenge. *IEEE Transactions on Medical Imaging*, **2011**, 30, 1901-20	11.7	311
232	Interactive Medical Image Segmentation Using Deep Learning With Image-Specific Fine Tuning. *IEEE Transactions on Medical Imaging*, **2018**, 37, 1562-1573	11.7	307
231	NiftyNet: a deep-learning platform for medical imaging. *Computer Methods and Programs in Biomedicine*, **2018**, 158, 113-122	6.9	284
230	In vivo imaging of the bronchial wall microstructure using fibered confocal fluorescence microscopy. *American Journal of Respiratory and Critical Care Medicine*, **2007**, 175, 22-31	10.2	256
229	Spherical demons: fast diffeomorphic landmark-free surface registration. *IEEE Transactions on Medical Imaging*, **2010**, 29, 650-68	11.7	252
228	Symmetric log-domain diffeomorphic Registration: a demons-based approach. *Lecture Notes in Computer Science*, **2008**, 11, 754-61	0.9	185
227	Non-parametric diffeomorphic image registration with the demons algorithm. *Lecture Notes in Computer Science*, **2007**, 10, 319-26	0.9	179
226	Automatic Brain Tumor Segmentation Using Cascaded Anisotropic Convolutional Neural Networks. *Lecture Notes in Computer Science*, **2018**, 178-190	0.9	168
225	Weakly-supervised convolutional neural networks for multimodal image registration. *Medical Image Analysis*, **2018**, 49, 1-13	15.4	154
224	Aleatoric uncertainty estimation with test-time augmentation for medical image segmentation with convolutional neural networks. *Neurocomputing*, **2019**, 335, 34-45	5.4	148
223	DeepIGeoS: A Deep Interactive Geodesic Framework for Medical Image Segmentation. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2019**, 41, 1559-1572	13.3	139
222	Robust mosaicing with correction of motion distortions and tissue deformations for in vivo fibered microscopy. *Medical Image Analysis*, **2006**, 10, 673-92	15.4	119
221	On the Compactness, Efficiency, and Representation of 3D Convolutional Networks: Brain Parcellation as a Pretext Task. *Lecture Notes in Computer Science*, **2017**, 348-360	0.9	109
220	High-resolution miniprobe-based confocal microscopy in combination with video mosaicing (with video). *Gastrointestinal Endoscopy*, **2007**, 66, 1001-7	5.2	107

219	Decentralized sigma-point information filters for target tracking in collaborative sensor networks. *IEEE Transactions on Signal Processing*, **2005**, 53, 2997-3009	4.8	93
218	Three-phase adaptive dose-painting-by-numbers for head-and-neck cancer: initial results of the phase I clinical trial. *Radiotherapy and Oncology*, **2013**, 107, 310-6	5.3	90
217	DT-REFinD: diffusion tensor registration with exact finite-strain differential. *IEEE Transactions on Medical Imaging*, **2009**, 28, 1914-28	11.7	73
216	Automatic Brain Tumor Segmentation Based on Cascaded Convolutional Neural Networks With Uncertainty Estimation. *Frontiers in Computational Neuroscience*, **2019**, 13, 56	3.5	72
215	Adaptive Optimization of IEEE 802.11 DCF Based on Bayesian Estimation of the Number of Competing Terminals. *IEEE Transactions on Mobile Computing*, **2006**, 5, 1283-1296	4.6	68
214	Joint multiple target tracking and classification in collaborative sensor networks. *IEEE Journal on Selected Areas in Communications*, **2005**, 23, 714-723	14.2	67
213	Learning semantic and visual similarity for endomicroscopy video retrieval. *IEEE Transactions on Medical Imaging*, **2012**, 31, 1276-88	11.7	64
212	An automated framework for localization, segmentation and super-resolution reconstruction of fetal brain MRI. *NeuroImage*, **2020**, 206, 116324	7.9	64
211	Software for automated classification of probe-based confocal laser endomicroscopy videos of colorectal polyps. *World Journal of Gastroenterology*, **2012**, 18, 5560-9	5.6	60
210	ToolNet: Holistically-nested real-time segmentation of robotic surgical tools **2017**,		59
209	CA-Net: Comprehensive Attention Convolutional Neural Networks for Explainable Medical Image Segmentation. *IEEE Transactions on Medical Imaging*, **2021**, 40, 699-711	11.7	54
208	Learning task-optimal registration cost functions for localizing cytoarchitecture and function in the cerebral cortex. *IEEE Transactions on Medical Imaging*, **2010**, 29, 1424-41	11.7	50
207	CAI4CAI: The Rise of Contextual Artificial Intelligence in Computer Assisted Interventions. *Proceedings of the IEEE*, **2020**, 108, 198-214	14.3	50
206	Artificial intelligence for the real-time classification of intrapapillary capillary loop patterns in the endoscopic diagnosis of early oesophageal squamous cell carcinoma: A proof-of-concept study. *United European Gastroenterology Journal*, **2019**, 7, 297-306	5.3	47
205	Label-driven weakly-supervised learning for multimodal deformable image registration **2018**,		46
204	A smart atlas for endomicroscopy using automated video retrieval. *Medical Image Analysis*, **2011**, 15, 460-76	15.4	45
203	Generalised Wasserstein Dice Score for Imbalanced Multi-class Segmentation Using Holistic Convolutional Networks. *Lecture Notes in Computer Science*, **2018**, 64-76	0.9	45
202	Separating fetal and maternal placenta circulations using multiparametric MRI. *Magnetic Resonance in Medicine*, **2019**, 81, 350-361	4.4	42

201	Minimally invasive photoacoustic imaging: Current status and future perspectives. *Photoacoustics*, **2019**, 16, 100146	9	40
200	Building large mosaics of confocal edomicroscopic images using visual servoing. *IEEE Transactions on Biomedical Engineering*, **2013**, 60, 1041-9	5	39
199	Real-Time Segmentation of Non-rigid Surgical Tools Based on Deep Learning and Tracking. *Lecture Notes in Computer Science*, **2017**, 84-95	0.9	37
198	A 30-Year Clinical and Magnetic Resonance Imaging Observational Study of Multiple Sclerosis and Clinically Isolated Syndromes. *Annals of Neurology*, **2020**, 87, 63-74	9.4	37
197	Computer-assisted surgical planning and intraoperative guidance in fetal surgery: a systematic review. *Prenatal Diagnosis*, **2015**, 35, 1159-66	3.2	36
196	Anatomically realistic ultrasound phantoms using gel wax with 3D printed moulds. *Physics in Medicine and Biology*, **2018**, 63, 015033	3.8	35
195	GIFT-Cloud: A data sharing and collaboration platform for medical imaging research. *Computer Methods and Programs in Biomedicine*, **2017**, 139, 181-190	6.9	34
194	Comparative dosimetry of three-phase adaptive and non-adaptive dose-painting IMRT for head-and-neck cancer. *Radiotherapy and Oncology*, **2014**, 111, 348-53	5.3	34
193	. *IEEE Transactions on Signal Processing*, **2007**, 55, 437-450	4.8	34
192	Intraoperative multispectral and hyperspectral label-free imaging: A systematic review of in vivo clinical studies. *Journal of Biophotonics*, **2019**, 12, e201800455	3.1	33
191	Gel wax-based tissue-mimicking phantoms for multispectral photoacoustic imaging. *Biomedical Optics Express*, **2018**, 9, 1151-1163	3.5	33
190	Delineation of the postprostatectomy prostate bed using computed tomography: interobserver variability following the EORTC delineation guidelines. *International Journal of Radiation Oncology Biology Physics*, **2011**, 81, e143-9	4	33
189	Slic-Seg: A minimally interactive segmentation of the placenta from sparse and motion-corrupted fetal MRI in multiple views. *Medical Image Analysis*, **2016**, 34, 137-147	15.4	33
188	Evaluation of deformable image coregistration in adaptive dose painting by numbers for head-and-neck cancer. *International Journal of Radiation Oncology Biology Physics*, **2012**, 83, 696-703	4	32
187	A Continuum Robot and Control Interface for Surgical Assist in Fetoscopic Interventions. *IEEE Robotics and Automation Letters*, **2017**, 2, 1656-1663	4.2	30
186	Insight into efficient image registration techniques and the demons algorithm. *Lecture Notes in Computer Science*, **2007**, 20, 495-506	0.9	29
185	Automatic Brain Tumor Segmentation Using Convolutional Neural Networks with Test-Time Augmentation. *Lecture Notes in Computer Science*, **2019**, 61-72	0.9	28
184	Long-term outcome of F-fluorodeoxyglucose-positron emission tomography-guided dose painting for head and neck cancer: Matched case-control study. *Head and Neck*, **2017**, 39, 2264-2275	4.2	28

183	Scalable Multimodal Convolutional Networks for Brain Tumour Segmentation. *Lecture Notes in Computer Science*, **2017**, 285-293	0.9	27
182	Real time autonomous video image registration for endomicroscopy: fighting the compromises **2008**,		27
181	Adversarial Deformation Regularization for Training Image Registration Neural Networks. *Lecture Notes in Computer Science*, **2018**, 774-782	0.9	27
180	Adversarial training with cycle consistency for unsupervised super-resolution in endomicroscopy. *Medical Image Analysis*, **2019**, 53, 123-131	15.4	26
179	Interventional Photoacoustic Imaging of the Human Placenta with Ultrasonic Tracking for Minimally Invasive Fetal Surgeries. *Lecture Notes in Computer Science*, **2015**, 9349, 371-378	0.9	26
178	Optimal number of atlases and label fusion for automatic multi-atlas-based brachial plexus contouring in radiotherapy treatment planning. *Radiation Oncology*, **2016**, 11, 1	4.2	26
177	Spherical demons: fast surface registration. *Lecture Notes in Computer Science*, **2008**, 11, 745-53	0.9	24
176	Freehand Ultrasound Image Simulation with Spatially-Conditioned Generative Adversarial Networks. *Lecture Notes in Computer Science*, **2017**, 105-115	0.9	23
175	Effective deep learning training for single-image super-resolution in endomicroscopy exploiting video-registration-based reconstruction. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 917-924	3.9	22
174	Asymmetric image-template registration. *Lecture Notes in Computer Science*, **2009**, 12, 565-73	0.9	22
173	Intraoperative Ultrasound in Patients Undergoing Transsphenoidal Surgery for Pituitary Adenoma: Systematic Review [corrected]. *World Neurosurgery*, **2017**, 106, 680-685	2.1	21
172	An artificial intelligence framework for automatic segmentation and volumetry of vestibular schwannomas from contrast-enhanced T1-weighted and high-resolution T2-weighted MRI. *Journal of Neurosurgery*, **2019**, 1-9	3.2	21
171	. *IEEE Transactions on Signal Processing*, **2007**, 55, 1286-1297	4.8	20
170	Hetero-Modal Variational Encoder-Decoder for Joint Modality Completion and Segmentation. *Lecture Notes in Computer Science*, **2019**, 74-82	0.9	20
169	Clinical Applications for Diffusion MRI and Tractography of Cranial Nerves Within the Posterior Fossa: A Systematic Review. *Frontiers in Neuroscience*, **2019**, 13, 23	5.1	19
168	Endomicroscopic image retrieval and classification using invariant visual features **2009**,		19
167	Photoacoustic imaging of the human placental vasculature. *Journal of Biophotonics*, **2020**, 13, e201900167	3.1	19
166	Late mucosal ulcers in dose-escalated adaptive dose-painting treatments for head-and-neck cancer. *Acta Oncologica*, **2018**, 57, 262-268	3.2	19

165	An anatomically validated brachial plexus contouring method for intensity modulated radiation therapy planning. *International Journal of Radiation Oncology Biology Physics*, **2013**, 87, 802-8	4	18
164	DTI registration with exact finite-strain differential **2008**,		18
163	Joint registration and synthesis using a probabilistic model for alignment of MRI and histological sections. *Medical Image Analysis*, **2018**, 50, 127-144	15.4	18
162	Mosaicing of confocal microscopic in vivo soft tissue video sequences. *Lecture Notes in Computer Science*, **2005**, 8, 753-60	0.9	18
161	Micro-CT and histological investigation of the spatial pattern of feto-placental vascular density. *Placenta*, **2019**, 88, 36-43	3.4	17
160	A mixed-reality surgical trainer with comprehensive sensing for fetal laser minimally invasive surgery. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 1949-1957	3.9	17
159	Diffeomorphic demons using normalized mutual information, evaluation on multimodal brain MR images **2010**,		17
158	Image computing for fibre-bundle endomicroscopy: A review. *Medical Image Analysis*, **2020**, 62, 101620	15.4	17
157	Automatic Segmentation of Vestibular Schwannoma from T2-Weighted MRI by Deep Spatial Attention with Hardness-Weighted Loss. *Lecture Notes in Computer Science*, **2019**, 264-272	0.9	16
156	Refractive Two-View Reconstruction for Underwater 3D Vision. *International Journal of Computer Vision*, **2020**, 128, 1101-1117	10.6	16
155	Does an integrated boost increase acute toxicity in prone hypofractionated breast irradiation? A randomized controlled trial. *Radiotherapy and Oncology*, **2017**, 122, 30-36	5.3	15
154	Re-localisation of a biopsy site in endoscopic images and characterisation of its uncertainty. *Medical Image Analysis*, **2012**, 16, 482-96	15.4	15
153	An Automated Localization, Segmentation and Reconstruction Framework for Fetal Brain MRI. *Lecture Notes in Computer Science*, **2018**, 313-320	0.9	15
152	From a Disposable Ureteroscope to an Active Lightweight Fetoscope-Characterization and Usability Evaluation. *IEEE Robotics and Automation Letters*, **2018**, 3, 4359-4366	4.2	14
151	Deep inspiration breath hold in the prone position retracts the heart from the breast and internal mammary lymph node region. *Radiotherapy and Oncology*, **2015**, 117, 473-6	5.3	13
150	Deformation field validation and inversion applied to adaptive radiation therapy. *Physics in Medicine and Biology*, **2013**, 58, 5269-86	3.8	12
149	Improved fetal blood oxygenation and placental estimated measurements of diffusion-weighted MRI using data-driven Bayesian modeling. *Magnetic Resonance in Medicine*, **2020**, 83, 2160-2172	4.4	12
148	Reliability of MR Imaging-Based Posterior Fossa and Brain Stem Measurements in Open Spinal Dysraphism in the Era of Fetal Surgery. *American Journal of Neuroradiology*, **2019**, 40, 191-198	4.4	12

147	Evaluation of Haptic Feedback on Bimanually Teleoperated Laparoscopy for Endometriosis Surgery. *IEEE Transactions on Biomedical Engineering*, **2019**, 66, 1207-1221	5	12
146	Imaging the human placental microcirculation with micro-focus computed tomography: Optimisation of tissue preparation and image acquisition. *Placenta*, **2017**, 60, 36-39	3.4	11
145	Early neuropathological and neurobehavioral consequences of preterm birth in a rabbit model. *Scientific Reports*, **2019**, 9, 3506	4.9	11
144	Intensity modulated arc therapy implementation in a three phase adaptive (18)F-FDG-PET voxel intensity-based planning strategy for head-and-neck cancer. *Radiation Oncology*, **2016**, 11, 52	4.2	11
143	Automatic segmentation method of pelvic floor levator hiatus in ultrasound using a self-normalizing neural network. *Journal of Medical Imaging*, **2018**, 5, 021206	2.6	11
142	Intrapapillary capillary loop classification in magnification endoscopy: open dataset and baseline methodology. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 651-659	3.9	10
141	Refractive Structure-from-Motion Through a Flat Refractive Interface **2017**,		10
140	Fluidic actuation for intra-operative in situ imaging **2015**,		10
139	Endomicroscopic video retrieval using mosaicing and visualwords **2010**,		10
138	Slic-Seg: Slice-by-Slice Segmentation Propagation of the Placenta in Fetal MRI Using One-Plane Scribbles and Online Learning. *Lecture Notes in Computer Science*, **2015**, 29-37	0.9	10
137	Introducing Space and Time in Local Feature-Based Endomicroscopic Image Retrieval. *Lecture Notes in Computer Science*, **2010**, 18-30	0.9	10
136	An image retrieval approach to setup difficulty levels in training systems for endomicroscopy diagnosis. *Lecture Notes in Computer Science*, **2010**, 13, 480-7	0.9	10
135	Magnetic resonance imaging measurement of placental perfusion and oxygen saturation in early-onset fetal growth restriction. *BJOG: an International Journal of Obstetrics and Gynaecology*, **2021**, 128, 337-345	3.7	10
134	Learning joint segmentation of tissues and brain lesions from task-specific hetero-modal domain-shifted datasets. *Medical Image Analysis*, **2021**, 67, 101862	15.4	10
133	Haptic Guidance Based on All-Optical Ultrasound Distance Sensing for Safer Minimally Invasive Fetal Surgery. *Journal of Medical Robotics Research*, **2018**, 3,	1.1	9
132	Retrieval and registration of long-range overlapping frames for scalable mosaicking of in vivo fetoscopy. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 713-720	3.9	9
131	Diffeomorphic Demons Using ITK's Finite Difference Solver Hierarchy. *The Insight Journal*, **2008**,		9
130	Scribble-Based Domain Adaptation via Co-segmentation. *Lecture Notes in Computer Science*, **2020**, 479-489	0.9	9

129	Volumetric reconstruction from printed films: Enabling 30 year longitudinal analysis in MR neuroimaging. *NeuroImage*, **2018**, 165, 238-250	7.9	8
128	Scale Factor Point Spread Function Matching: Beyond Aliasing in Image Resampling. *Lecture Notes in Computer Science*, **2015**, 675-683	0.9	8
127	Retrieval evaluation and distance learning from perceived similarity between endomicroscopy videos. *Lecture Notes in Computer Science*, **2011**, 14, 297-304	0.9	8
126	The conversational position in endoscopic pituitary surgery. *British Journal of Neurosurgery*, **2018**, 32, 44-46	1	8
125	Real-time mosaicing of fetoscopic videos using SIFT **2016**,		7
124	Super-resolution for upper abdominal MRI: Acquisition and post-processing protocol optimization using brain MRI control data and expert reader validation. *Magnetic Resonance in Medicine*, **2019**, 82, 1905-1919	4.4	7
123	Intraoperative Organ Motion Models with an Ensemble of Conditional Generative Adversarial Networks. *Lecture Notes in Computer Science*, **2017**, 368-376	0.9	7
122	Multicolor probe-based confocal laser endomicroscopy: a new world for in vivo and real-time cellular imaging **2013**,		7
121	Wide-field spectrally resolved quantitative fluorescence imaging system: toward neurosurgical guidance in glioma resection. *Journal of Biomedical Optics*, **2017**, 22, 1-14	3.5	7
120	Uncertainty-Guided Efficient Interactive Refinement of Fetal Brain Segmentation from Stacks of MRI Slices. *Lecture Notes in Computer Science*, **2020**, 279-288	0.9	7
119	Semi-automated query construction for content-based endomicroscopy video retrieval. *Lecture Notes in Computer Science*, **2014**, 17, 89-96	0.9	7
118	A viterbi approach to topology inference for large scale endomicroscopy video mosaicing. *Lecture Notes in Computer Science*, **2013**, 16, 404-11	0.9	7
117	Manual segmentation versus semi-automated segmentation for quantifying vestibular schwannoma volume on MRI. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 1445-1455	3.9	7
116	Deep learning-based fetoscopic mosaicking for field-of-view expansion. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 1807-1816	3.9	7
115	High-speed photoacoustic-guided wavefront shaping for focusing light in scattering media. *Optics Letters*, **2021**, 46, 1165-1168	3	7
114	Registration of MRI and iUS Data to Compensate Brain Shift Using a Symmetric Block-Matching Based Approach. *Lecture Notes in Computer Science*, **2018**, 172-178	0.9	7
113	Handheld Active Add-On Control Unit for a Cable-Driven Flexible Endoscope. *Frontiers in Robotics and AI*, **2019**, 6, 87	2.8	6
112	Reliability and accuracy assessment of Radiation Therapy Oncology Group-endorsed guidelines for brachial plexus contouring. *Strahlentherapie Und Onkologie*, **2014**, 190, 628-32, 634-5	4.3	6

111	Probabilistic visual and electromagnetic data fusion for robust drift-free sequential mosaicking: application to fetoscopy. *Journal of Medical Imaging*, **2018**, 5, 021217	2.6	6
110	Pruning strategies for efficient online globally consistent mosaicking in fetoscopy. *Journal of Medical Imaging*, **2019**, 6, 035001	2.6	6
109	Seeing through multimode fibers with real-valued intensity transmission matrices. *Optics Express*, **2020**, 28, 20978-20991	3.3	6
108	DeepReg: a deep learning toolkit for medical image registration. *Journal of Open Source Software*, **2020**, 5, 2705	5.2	6
107	Deep Placental Vessel Segmentation for Fetoscopic Mosaicking. *Lecture Notes in Computer Science*, **2020**, 763-773	0.9	6
106	Image Compositing for Segmentation of Surgical Tools Without Manual Annotations. *IEEE Transactions on Medical Imaging*, **2021**, 40, 1450-1460	11.7	6
105	Segmentation of vestibular schwannoma from MRI An open annotated dataset and baseline algorithm		6
104	Reproducibility of deep inspiration breath hold for prone left-sided whole breast irradiation. *Radiation Oncology*, **2015**, 10, 9	4.2	5
103	Learning from irregularly sampled data for endomicroscopy super-resolution: a comparative study of sparse and dense approaches. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 1167-1175	3.9	5
102	FetNet: a recurrent convolutional network for occlusion identification in fetoscopic videos. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 791-801	3.9	5
101	Music-of-light stethoscope: a demonstration of the photoacoustic effect. *Physics Education*, **2016**, 51, 045015	0.8	5
100	A magnetic resonance multi-atlas for the neonatal rabbit brain. *NeuroImage*, **2018**, 179, 187-198	7.9	5
99	Conditional Segmentation in Lieu of Image Registration. *Lecture Notes in Computer Science*, **2019**, 401-409	0.9	5
98	An Unsupervised Approach to Ultrasound Elastography with End-to-end Strain Regularisation. *Lecture Notes in Computer Science*, **2020**, 573-582	0.9	5
97	A system for biopsy site re-targeting with uncertainty in gastroenterology and oropharyngeal examinations. *Lecture Notes in Computer Science*, **2010**, 13, 514-21	0.9	5
96	Active Handheld Flexible Fetoscope Design and Control Based on a Modified Generalized Prandtl-Ishlinski Model **2020**,		5
95	Intraoperative hyperspectral label-free imaging: from system design to first-in-patient translation. *Journal Physics D: Applied Physics*, **2021**, 54, 294003	3	5
94	A Combined EM and Visual Tracking Probabilistic Model for Robust Mosaicking: Application to Fetoscopy **2016**,		5

93	Patient-Specific 3D Printed Models for Education, Research and Surgical Simulation **2018**,		5
92	Towards computer-assisted TTTS: Laser ablation detection for workflow segmentation from fetoscopic video. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 1661-1670	3.9	5
91	MIDeepSeg: Minimally interactive segmentation of unseen objects from medical images using deep learning. *Medical Image Analysis*, **2021**, 72, 102102	15.4	5
90	Tu1991 ARTIFICIAL INTELLIGENCE FOR REAL-TIME POLYP LOCALISATION IN COLONOSCOPY WITHDRAWAL VIDEOS. *Gastrointestinal Endoscopy*, **2019**, 89, AB647	5.2	4
89	Deep learning-based monocular placental pose estimation: towards collaborative robotics in fetoscopy. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 1561-1571	3.9	4
88	A feasibility study on adaptive F-FDG-PET-guided radiotherapy for recurrent and second primary head and neck cancer in the previously irradiated territory. *Strahlentherapie Und Onkologie*, **2018**, 194, 727-736	4.3	4
87	**2006**,		4
86	Human placental vasculature imaging using an LED-based photoacoustic/ultrasound imaging system **2018**,		4
85	Multiplexed polarized hypodermic Raman needle probe for biostructural analysis of articular cartilage. *Optics Letters*, **2020**, 45, 2890-2893	3	4
84	High-Throughput Molecular Imaging via Deep-Learning-Enabled Raman Spectroscopy. *Analytical Chemistry*, **2021**, 93, 15850-15860	7.8	4
83	Permutohedral Attention Module for Efficient Non-local Neural Networks. *Lecture Notes in Computer Science*, **2019**, 393-401	0.9	4
82	Deep Sequential Mosaicking of Fetoscopic Videos. *Lecture Notes in Computer Science*, **2019**, 311-319	0.9	4
81	Improved MR to CT Synthesis for PET/MR Attenuation Correction Using Imitation Learning. *Lecture Notes in Computer Science*, **2019**, 13-21	0.9	4
80	Landmark-Based Evaluation of a Block-Matching Registration Framework on the RESECT Pre- and Intra-operative Brain Image Data Set. *Lecture Notes in Computer Science*, **2019**, 136-144	0.9	4
79	Focusing light through multimode fibres using a digital micromirror device: a comparison study of non-holographic approaches. *Optics Express*, **2021**, 29, 14269-14281	3.3	4
78	Label-Set Loss Functions for Partial Supervision: Application to Fetal Brain 3D MRI Parcellation. *Lecture Notes in Computer Science*, **2021**, 647-657	0.9	4
77	Generalized Wasserstein Dice Score, Distributionally Robust Deep Learning, and Ranger for Brain Tumor Segmentation: BraTS 2020 Challenge. *Lecture Notes in Computer Science*, **2021**, 200-214	0.9	4
76	Robotic Control of a Multi-Modal Rigid Endoscope Combining Optical Imaging with All-Optical Ultrasound **2019**,		3

75	Medical-grade Sterilizable Target for Fluid-immersed Fetoscope Optical Distortion Calibration. *Journal of Visualized Experiments*, **2017**,	1.6	3
74	Body wall force sensor for simulated minimally invasive surgery: Application to fetal surgery **2017**,		3
73	An ITK Implementation of the Symmetric Log-Domain Diffeomorphic Demons Algorithm. *The Insight Journal*, **2010**,		3
72	Bruker2nifti: Magnetic Resonance Images converter from Bruker ParaVision to Nifti format. *Journal of Open Source Software*, **2017**, 2, 354	5.2	3
71	Segmentation of vestibular schwannoma from MRI, an open annotated dataset and baseline algorithm. *Scientific Data*, **2021**, 8, 286	8.2	3
70	Motion-Aware Mosaicing for Confocal Laser Endomicroscopy. *Lecture Notes in Computer Science*, **2015**, 447-454	0.9	3
69	Dynamically Balanced Online Random Forests for Interactive Scribble-Based Segmentation. *Lecture Notes in Computer Science*, **2016**, 352-360	0.9	3
68	Point-Spread-Function-Aware Slice-to-Volume Registration: Application to Upper Abdominal MRI Super-Resolution. *Lecture Notes in Computer Science*, **2017**, 3-13	0.9	3
67	Content-Based Retrieval in Endomicroscopy: Toward an Efficient Smart Atlas for Clinical Diagnosis. *Lecture Notes in Computer Science*, **2012**, 12-23	0.9	3
66	Online blind calibration of non-uniform photodetectors: application to endomicroscopy. *Lecture Notes in Computer Science*, **2012**, 15, 639-46	0.9	3
65	Optical Detection of Distal Lung Enzyme Activity in Human Inflammatory Lung Disease. *BME Frontiers*, **2021**, 2021, 1-11	4.4	3
64	Cortical spectral matching and shape and volume analysis of the fetal brain pre- and post-fetal surgery for spina bifida: a retrospective study. *Neuroradiology*, **2021**, 63, 1721-1734	3.2	3
63	Design and Shared Control of a Flexible Endoscope with Autonomous Distal Tip Alignment **2019**,		3
62	Macro-Micro Multi-Arm Robot for Single-Port Access Surgery **2019**,		3
61	Automated postoperative muscle assessment of hip arthroplasty patients using multimodal imaging joint segmentation. *Computer Methods and Programs in Biomedicine*, **2020**, 183, 105062	6.9	3
60	Zero-Shot Super-Resolution With a Physically-Motivated Downsampling Kernel for Endomicroscopy. *IEEE Transactions on Medical Imaging*, **2021**, 40, 1863-1874	11.7	3
59	Inter Extreme Points Geodesics for End-to-End Weakly Supervised Image Segmentation. *Lecture Notes in Computer Science*, **2021**, 615-624	0.9	3
58	Imitation learning for improved 3D PET/MR attenuation correction. *Medical Image Analysis*, **2021**, 71, 102079	15.4	3

57	An unsupervised learning approach to ultrasound strain elastography with spatio-temporal consistency. *Physics in Medicine and Biology*, **2021**, 66,	3.8	3
56	Distributionally Robust Segmentation of Abnormal Fetal Brain 3D MRI. *Lecture Notes in Computer Science*, **2021**, 263-273	0.9	3
55	Development of an alveolar transbronchial catheter for concurrent fiber optics based imaging and fluid delivery. *Journal of Medical Devices, Transactions of the ASME*, **2018**, 12,	1.3	2
54	Online Bayesian estimation of hidden Markov models with unknown transition matrix and applications to IEEE 802.11 networks		2
53	Longitudinal Image Registration with Temporal-Order and Subject-Specificity Discrimination. *Lecture Notes in Computer Science*, **2020**, 243-252	0.9	2
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