Nassir Navab

List of Publications by Year in Descending Order

429 papers	**12,481** citations	**52** h-index	**99** g-index
482 ext. papers	**15,871** ext. citations	**5.9** avg, IF	**6.72** L-index

#	Paper	IF	Citations
429	Learning 3D Semantic Scene Graphs with Instance Embeddings. *International Journal of Computer Vision*, **2022**, 130, 630	10.6	0
428	RSV: Robotic Sonography for Thyroid Volumetry. *IEEE Robotics and Automation Letters*, **2022**, 7, 3342-3348	4.2	0
427	Acoustic Shadowing Aware Robotic Ultrasound: Lighting up the Dark. *IEEE Robotics and Automation Letters*, **2022**, 7, 1808-1815	4.2	
426	Surgical scene generation and adversarial networks for physics-based iOCT synthesis.. *Biomedical Optics Express*, **2022**, 13, 2414-2430	3.5	0
425	Object-Aware Monocular Depth Prediction With Instance Convolutions. *IEEE Robotics and Automation Letters*, **2022**, 7, 5389-5396	4.2	
424	Carotid Ultrasound Boundary Study (CUBS): Technical considerations on an open multi-center analysis of computerized measurement systems for intima-media thickness measurement on common carotid artery longitudinal B-mode ultrasound scans.. *Computers in Biology and Medicine*, **2022**, 144, 105333	7	1
423	Recurrent Models for Lane Change Prediction and Situation Assessment. *IEEE Transactions on Intelligent Transportation Systems*, **2022**, 1-17	6.1	1
422	Robot-Assisted Medical Imaging: A Review. *Proceedings of the IEEE*, **2022**, 1-17	14.3	4
421	Precision surgery: the role of intra-operative real-time image guidance - outcomes from a multidisciplinary European consensus conference.. *American Journal of Nuclear Medicine and Molecular Imaging*, **2022**, 12, 74-80	2.2	
420	VesNet-RL: Simulation-based Reinforcement Learning for Real-World US Probe Navigation. *IEEE Robotics and Automation Letters*, **2022**, 1-1	4.2	0
419	Surgical data science - from concepts toward clinical translation. *Medical Image Analysis*, **2021**, 76, 102306	15.4	13
418	Physics-aware learning and domain-specific loss design in ophthalmology. *Medical Image Analysis*, **2021**, 76, 102314	15.4	1
417	Longitudinal Brain MR Image Modeling Using Personalized Memory for Alzheimers Disease. *IEEE Access*, **2021**, 9, 143212-143221	3.5	1
416	Motion-Aware Robotic 3D Ultrasound **2021**,		2
415	Curriculum learning for improved femur fracture classification: Scheduling data with prior knowledge and uncertainty. *Medical Image Analysis*, **2021**, 75, 102273	15.4	3
414	RA-GCN: Graph convolutional network for disease prediction problems with imbalanced data. *Medical Image Analysis*, **2021**, 75, 102272	15.4	5
413	The Effectiveness of Collaborative Augmented Reality in Gross Anatomy Teaching: A Quantitative and Qualitative Pilot Study. *Anatomical Sciences Education*, **2021**, 14, 590-604	6.8	2

412	Cyclist Effort Features: A Novel Technique for Image Texture Characterization Applied to Larynx Cancer Classification in Contact Endoscopy-Narrow Band Imaging. *Diagnostics*, **2021**, 11,	3.8	3
411	Fourier Transform of Percoll Gradients Boosts CNN Classification of Hereditary Hemolytic Anemias **2021**,		1
410	Panoster: End-to-End Panoptic Segmentation of LiDAR Point Clouds. *IEEE Robotics and Automation Letters*, **2021**, 6, 3216-3223	4.2	12
409	Towards markerless surgical tool and hand pose estimation. *International Journal of Computer Assisted Radiology and Surgery*, **2021**, 16, 799-808	3.9	5
408	Autoencoders for unsupervised anomaly segmentation in brain MR images: A comparative study. *Medical Image Analysis*, **2021**, 69, 101952	15.4	51
407	Evaluating surface visualization methods in semi-transparent volume rendering in virtual reality. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization*, **2021**, 9, 339-348	0.9	1
406	Modeling Healthy Anatomy with Artificial Intelligence for Unsupervised Anomaly Detection in Brain MRI. *Radiology: Artificial Intelligence*, **2021**, 3, e190169	8.7	9
405	Preclinical evaluation of a markerless, real-time, augmented reality guidance system for robot-assisted radical prostatectomy. *International Journal of Computer Assisted Radiology and Surgery*, **2021**, 16, 1181-1188	3.9	0
404	How molecular imaging will enable robotic precision surgery : The role of artificial intelligence, augmented reality, and navigation. *European Journal of Nuclear Medicine and Molecular Imaging*, **2021**, 48, 4201-4224	8.8	6
403	Whole-body uptake classification and prostate cancer staging in Ga-PSMA-11 PET/CT using dual-tracer learning. *European Journal of Nuclear Medicine and Molecular Imaging*, **2021**, 1	8.8	3
402	Simultaneous imputation and classification using Multigraph Geometric Matrix Completion (MGMC): Application to neurodegenerative disease classification. *Artificial Intelligence in Medicine*, **2021**, 117, 102097	7.4	1
401	Towards Exploring the Benefits of Augmented Reality for Patient Support During Radiation Oncology Interventions. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization*, **2021**, 9, 322-329	0.9	1
400	Feasibility of image-based augmented reality guidance of total shoulder arthroplasty using microsoft HoloLens 1. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization*, **2021**, 9, 261-270	0.9	7
399	On the effectiveness of virtual reality-based training for surgical robot setup. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization*, **2021**, 9, 243-252	0.9	0
398	Virtual reality technologies for clinical education: evaluation metrics and comparative analysis. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization*, **2021**, 9, 233-242	0.9	1
397	Performance-aware programming for intraoperative intensity-based image registration on graphics processing units. *International Journal of Computer Assisted Radiology and Surgery*, **2021**, 16, 375-386	3.9	
396	Avatars for Teleconsultation: Effects of Avatar Embodiment Techniques on User Perception in 3D Asymmetric Telepresence. *IEEE Transactions on Visualization and Computer Graphics*, **2021**, 27, 4129-4139		9
395	Real-time tool to layer distance estimation for robotic subretinal injection using intraoperative 4D OCT. *Biomedical Optics Express*, **2021**, 12, 1085-1104	3.5	4

394	Autonomous Robotic Screening of Tubular Structures based only on Real-Time Ultrasound Imaging Feedback. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	7
393	GKD: Semi-supervised Graph Knowledge Distillation for Graph-Independent Inference. *Lecture Notes in Computer Science*, **2021**, 709-718	0.9	0
392	Augmented Reality in Orthopedic Surgery Is Emerging from Proof of Concept Towards Clinical Studies: a Literature Review Explaining the Technology and Current State of the Art. *Current Reviews in Musculoskeletal Medicine*, **2021**, 14, 192-203	4.6	17
391	Real-time acoustic sensing and artificial intelligence for error prevention in orthopedic surgery. *Scientific Reports*, **2021**, 11, 3993	4.9	3
390	The added value of PSMA PET/MR radiomics for prostate cancer staging. *European Journal of Nuclear Medicine and Molecular Imaging*, **2021**, 1	8.8	5
389	Exploring partial intrinsic and extrinsic symmetry in 3D medical imaging. *Medical Image Analysis*, **2021**, 72, 102127	15.4	1
388	Using Base-ml to Learn Classification of Common Vestibular Disorders on DizzyReg Registry Data. *Frontiers in Neurology*, **2021**, 12, 681140	4.1	1
387	Clean-AR: Using Augmented Reality for Reducing the Risk of Contamination from Airborne Disease Agents on Surfaces. *Current Directions in Biomedical Engineering*, **2021**, 7, 6-10	0.5	
386	Usability of Graphical Visualizations on a Tool-Mounted Interface for Spine Surgery. *Journal of Imaging*, **2021**, 7,	3.1	2
385	Carotid Ultrasound Boundary Study (CUBS): An Open Multicenter Analysis of Computerized Intima-Media Thickness Measurement Systems and Their Clinical Impact. *Ultrasound in Medicine and Biology*, **2021**, 47, 2442-2455	3.5	3
384	PET- and SPECT-based navigation strategies to advance procedural accuracy in interventional radiology and image-guided surgery. *Quarterly Journal of Nuclear Medicine and Molecular Imaging*, **2021**, 65, 244-260	1.4	1
383	AI for Doctors-A Course to Educate Medical Professionals in Artificial Intelligence for Medical Imaging. *Healthcare (Switzerland)*, **2021**, 9,	3.4	1
382	Pose-Dependent Weights and Domain Randomization for Fully Automatic X-Ray to CT Registration. *IEEE Transactions on Medical Imaging*, **2021**, 40, 2221-2232	11.7	3
381	Spotlight-based 3D Instrument Guidance for Autonomous Task in Robot-assisted Retinal Surgery.. *IEEE Robotics and Automation Letters*, **2021**, 6, 7750-7757	4.2	2
380	Deformation-Aware Robotic 3D Ultrasound. *IEEE Robotics and Automation Letters*, **2021**, 6, 7675-7682	4.2	4
379	Automatic Force-Based Probe Positioning for Precise Robotic Ultrasound Acquisition. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 11200-11211	8.9	11
378	Domain-Specific Priors and Meta Learning for Few-Shot First-Person Action Recognition. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2021**, PP,	13.3	6
377	Reconstruction of Orthographic Mosaics From Perspective X-Ray Images. *IEEE Transactions on Medical Imaging*, **2021**, 40, 3165-3177	11.7	0

376	FedPerl: Semi-supervised Peer Learning for Skin Lesion Classification. *Lecture Notes in Computer Science*, **2021**, 336-346	0.9	5
375	PLAFOKON: a new concept for a patient-individual and intervention-specific flexible surgical platform.. *Surgical Endoscopy and Other Interventional Techniques*, **2021**, 1	5.2	1
374	Artificial Intelligence in Visceral Medicine. *Visceral Medicine*, **2020**, 36, 471-475	2.4	1
373	Reflective-AR Display: An Interaction Methodology for Virtual-to-Real Alignment in Medical Robotics. *IEEE Robotics and Automation Letters*, **2020**, 5, 2722-2729	4.2	9
372	Modern machine-learning can support diagnostic differentiation of central and peripheral acute vestibular disorders. *Journal of Neurology*, **2020**, 267, 143-152	5.5	9
371	Signal Clustering With Class-Independent Segmentation **2020**,		2
370	Evaluation of a marker-less, intra-operative, augmented reality guidance system for robot-assisted laparoscopic radical prostatectomy. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 1225-1233	3.9	6
369	Model-Based Compensation of Moving Tissue for State Recognition in Robotic-Assisted Pedicle Drilling. *IEEE Transactions on Medical Robotics and Bionics*, **2020**, 2, 463-473	3.1	2
368	Automatic intraoperative optical coherence tomography positioning. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 781-789	3.9	2
367	Applicability of augmented reality in orthopedic surgery - A systematic review. *BMC Musculoskeletal Disorders*, **2020**, 21, 103	2.8	41
366	Automatic Normal Positioning of Robotic Ultrasound Probe Based Only on Confidence Map Optimization and Force Measurement. *IEEE Robotics and Automation Letters*, **2020**, 5, 1342-1349	4.2	19
365	Three-dimensional-Printed Computed Tomography-Based Bone Models for Spine Surgery Simulation. *Simulation in Healthcare*, **2020**, 15, 61-66	2.8	5
364	Analyzing the co-localization of substantia nigra hyper-echogenicities and iron accumulation in Parkinson's disease: A multi-modal atlas study with transcranial ultrasound and MRI. *NeuroImage: Clinical*, **2020**, 26, 102185	5.3	6
363	pix2xray: converting RGB images into X-rays using generative adversarial networks. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 973-980	3.9	3
362	Biologically Inspired Catheter for Endovascular Sensing and Navigation. *Scientific Reports*, **2020**, 10, 5643	4.9	1
361	Acoustic signal analysis of instrument-tissue interaction for minimally invasive interventions. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 771-779	3.9	6
360	Precise proximal femur fracture classification for interactive training and surgical planning. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 847-857	3.9	13
359	Towards Unsupervised Learning for Instrument Segmentation in Robotic Surgery with Cycle-Consistent Adversarial Networks **2020**,		6

358	Ultrasound-Guided Robotic Navigation with Deep Reinforcement Learning **2020**,		10
357	Data-driven estimation of noise variance stabilization parameters for low-dose x-ray images. *Physics in Medicine and Biology*, **2020**, 65, 225027	3.8	1
356	Manual versus Automatic Classification of Laryngeal Lesions based on Vascular Patterns in CE+NBI Images. *Current Directions in Biomedical Engineering*, **2020**, 6, 70-73	0.5	0
355	Augmented Reality-Based Rehabilitation of Gait Impairments: Case Report. *JMIR MHealth and UHealth*, **2020**, 8, e17804	5.5	12
354	Microaneurysms segmentation and diabetic retinopathy detection by learning discriminative representations. *IET Image Processing*, **2020**, 14, 4571-4578	1.7	2
353	Spatially-Aware Displays for Computer Assisted Interventions. *Lecture Notes in Computer Science*, **2020**, 451-460	0.9	
352	SoftPoolNet: Shape Descriptor for Point Cloud Completion and Classification. *Lecture Notes in Computer Science*, **2020**, 70-85	0.9	9
351	Inverse Distance Aggregation for Federated Learning with Non-IID Data. *Lecture Notes in Computer Science*, **2020**, 150-159	0.9	20
350	Towards Robotic-Assisted Subretinal Injection: A Hybrid Parallel-Serial Robot System Design and Preliminary Evaluation. *IEEE Transactions on Industrial Electronics*, **2020**, 67, 6617-6628	8.9	21
349	Challenges in Computer Assisted Interventions **2020**, 979-1012		3
348	Intraoperative Bildgebung und Visualisierung. *Onkologe*, **2020**, 26, 31-43	0.1	2
347	A Review of Augmented Reality in Robotic-Assisted Surgery. *IEEE Transactions on Medical Robotics and Bionics*, **2020**, 2, 1-16	3.1	28
346	CAI4CAI: The Rise of Contextual Artificial Intelligence in Computer Assisted Interventions. *Proceedings of the IEEE*, **2020**, 108, 198-214	14.3	50
345	GANs for medical image analysis. *Artificial Intelligence in Medicine*, **2020**, 109, 101938	7.4	67
344	Carotid Wall Longitudinal Motion in Ultrasound Imaging: An Expert Consensus Review. *Ultrasound in Medicine and Biology*, **2020**, 46, 2605-2624	3.5	11
343	Laryngeal Lesion Classification Based on Vascular Patterns in Contact Endoscopy and Narrow Band Imaging: Manual Versus Automatic Approach. *Sensors*, **2020**, 20,	3.8	4
342	Machine Learning Techniques for Ophthalmic Data Processing: A Review. *IEEE Journal of Biomedical and Health Informatics*, **2020**, 24, 3338-3350	7.2	7
341	Explicit Domain Adaptation With Loosely Coupled Samples. *IEEE Robotics and Automation Letters*, **2020**, 5, 6740-6747	4.2	1

340	Force-Ultrasound Fusion: Bringing Spine Robotic-US to the Next Level *IEEE Robotics and Automation Letters*, **2020**, 5, 5661-5668	4.2	11
339	Structure-SLAM: Low-Drift Monocular SLAM in Indoor Environments. *IEEE Robotics and Automation Letters*, **2020**, 5, 6583-6590	4.2	16
338	A learning-based method for online adjustment of C-arm Cone-beam CT source trajectories for artifact avoidance. *International Journal of Computer Assisted Radiology and Surgery*, **2020**, 15, 1787-1796	3.9	4
337	Extending the Hybrid Surgical Guidance Concept With Freehand Fluorescence Tomography. *IEEE Transactions on Medical Imaging*, **2020**, 39, 226-235	11.7	12
336	Joint motion boundary detection and CNN-based feature visualization for video object segmentation. *Neural Computing and Applications*, **2020**, 32, 4073-4091	4.8	1
335	'Squeeze & excite' guided few-shot segmentation of volumetric images. *Medical Image Analysis*, **2020**, 59, 101587	15.4	34
334	Staingan: Stain Style Transfer for Digital Histological Images **2019**,		87
333	Variational Object-Aware 3-D Hand Pose From a Single RGB Image. *IEEE Robotics and Automation Letters*, **2019**, 4, 4239-4246	4.2	4
332	Symmetry prior for epipolar consistency. *International Journal of Computer Assisted Radiology and Surgery*, **2019**, 14, 1541-1551	3.9	3
331	Self-Attention Equipped Graph Convolutions for Disease Prediction **2019**,		12
330	The Benefits of an Augmented Reality Magic Mirror System for Integrated Radiology Teaching in Gross Anatomy. *Anatomical Sciences Education*, **2019**, 12, 585-598	6.8	45
329	Enabling machine learning in X-ray-based procedures via realistic simulation of image formation. *International Journal of Computer Assisted Radiology and Surgery*, **2019**, 14, 1517-1528	3.9	25
328	Upbeat: Augmented Reality-Guided Dancing for Prosthetic Rehabilitation of Upper Limb Amputees. *Journal of Healthcare Engineering*, **2019**, 2019, 2163705	3.7	14
327	Peeking behind objects: Layered depth prediction from a single image. *Pattern Recognition Letters*, **2019**, 125, 333-340	4.7	20
326	Preliminary results of DSA denoising based on a weighted low-rank approach using an advanced neurovascular replication system. *International Journal of Computer Assisted Radiology and Surgery*, **2019**, 14, 1117-1126	3.9	3
325	Learning to detect anatomical landmarks of the pelvis in X-rays from arbitrary views. *International Journal of Computer Assisted Radiology and Surgery*, **2019**, 14, 1463-1473	3.9	13
324	Bayesian QuickNAT: Model uncertainty in deep whole-brain segmentation for structure-wise quality control. *NeuroImage*, **2019**, 195, 11-22	7.9	41
323	Video-augmented fluoroscopy for distal interlocking of intramedullary nails decreased radiation exposure and surgical time in a bovine cadaveric setting. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2019**, 15, e1995	2.9	7

322	Interactive Flying Frustums (IFFs): spatially aware surgical data visualization. *International Journal of Computer Assisted Radiology and Surgery*, **2019**, 14, 913-922	3.9	14
321	An analytical approach for the simulation of realistic low-dose fluoroscopic images. *International Journal of Computer Assisted Radiology and Surgery*, **2019**, 14, 601-610	3.9	4
320	Attention-based Lane Change Prediction **2019**,		14
319	Visualization Techniques for Precise Alignment in VR: A Comparative Study **2019**,		10
318	Radiation-free methods for navigated screw placement in slipped capital femoral epiphysis surgery. *International Journal of Computer Assisted Radiology and Surgery*, **2019**, 14, 2199-2210	3.9	1
317	Co-localized augmented human and X-ray observers in collaborative surgical ecosystem. *International Journal of Computer Assisted Radiology and Surgery*, **2019**, 14, 1553-1563	3.9	5
316	6DOF Needle Pose Estimation for Robot-Assisted Vitreoretinal Surgery. *IEEE Access*, **2019**, 7, 63113-63122	3.5	11
315	Learning-Based X-Ray Image Denoising Utilizing Model-Based Image Simulations. *Lecture Notes in Computer Science*, **2019**, 549-557	0.9	2
314	Adaptive Image-Feature Learning for Disease Classification Using Inductive Graph Networks. *Lecture Notes in Computer Science*, **2019**, 640-648	0.9	5
313	Toward an End-to-End Calibration for Mobile C-Arm in Combination with a Depth Sensor for Surgical Augmented Reality Applications. *Sensors*, **2019**, 20,	3.8	2
312	Generalising multistain immunohistochemistry tissue segmentation using end-to-end colour deconvolution deep neural networks. *IET Image Processing*, **2019**, 13, 1066-1073	1.7	4
311	Robotic Ultrasound for Catheter Navigation in Endovascular Procedures **2019**,		8
310	Crowd-sourced Semantic Edge Mapping for Autonomous Vehicles **2019**,		1
309	Investigation of Focal Loss in Deep Learning Models For Femur Fractures Classification **2019**,		2
308	Birds vs. Fish: Visualizing Out-of-View Objects in Augmented Reality using 3D Minimaps **2019**,		2
307	ForkNet: Multi-Branch Volumetric Semantic Completion From a Single Depth Image **2019**,		10
306	Sampling-Free Epistemic Uncertainty Estimation Using Approximated Variance Propagation **2019**,		27
305	Marker-less real-time intra-operative camera and hand-eye calibration procedure for surgical augmented reality. *Healthcare Technology Letters*, **2019**, 6, 255-260	1.9	2

304	Towards in-vivo ultrasound-histology: Plane-waves and generative adversarial networks for pixel-wise speed of sound reconstruction **2019**,		2
303	Patient 3D body pose estimation from pressure imaging. *International Journal of Computer Assisted Radiology and Surgery*, **2019**, 14, 517-524	3.9	19
302	Robust navigation support in lowest dose image setting. *International Journal of Computer Assisted Radiology and Surgery*, **2019**, 14, 291-300	3.9	1
301	QuickNAT: A fully convolutional network for quick and accurate segmentation of neuroanatomy. *NeuroImage*, **2019**, 186, 713-727	7.9	90
300	Enhancement of Anatomical Education Using Augmented Reality: An Empirical Study of Body Painting. *Anatomical Sciences Education*, **2019**, 12, 599-609	6.8	27
299	Say, What Is on Your Mind? Surgeons' Evaluations of Realism and Usability of a Virtual Reality Vertebroplasty Simulator. *Surgical Innovation*, **2019**, 26, 234-243	2	13
298	Use the force: deformation correction in robotic 3D ultrasound. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 619-627	3.9	12
297	Robotic ultrasound-guided facet joint insertion. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 895-904	3.9	18
296	Automatic intraoperative stitching of nonoverlapping cone-beam CT acquisitions. *Medical Physics*, **2018**, 45, 2463-2475	4.4	3
295	A photon recycling approach to the denoising of ultra-low dose X-ray sequences. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 847-854	3.9	7
294	SDF-2-SDF Registration for Real-Time 3D Reconstruction from RGB-D Data. *International Journal of Computer Vision*, **2018**, 126, 615-636	10.6	10
293	Camera-augmented mobile C-arm (CamC): A feasibility study of augmented reality imaging in the operating room. *International Journal of Medical Robotics and Computer Assisted Surgery*, **2018**, 14, e1885	2.9	11
292	Navigation of Fluorescence Cameras during Soft Tissue Surgery-Is it Possible to Use a Single Navigation Setup for Various Open and Laparoscopic Urological Surgery Applications?. *Journal of Urology*, **2018**, 199, 1061-1068	2.5	14
291	Computer-assisted surgery: virtual- and augmented-reality displays for navigation during urological interventions. *Current Opinion in Urology*, **2018**, 28, 205-213	2.8	44
290	SUPRA: open-source software-defined ultrasound processing for real-time applications : A 2D and 3D pipeline from beamforming to B-mode. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 759-767	3.9	13
289	Fast 5DOF needle tracking in iOCT. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 787-796	3.9	9
288	Trackerless panoramic optoacoustic imaging: a first feasibility evaluation. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 703-711	3.9	3
287	Convolutional neural networks for real-time epileptic seizure detection. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization*, **2018**, 6, 264-269	0.9	26

286	Real-Time Accurate 3D Head Tracking and Pose Estimation with Consumer RGB-D Cameras. *International Journal of Computer Vision*, **2018**, 126, 158-183	10.6	9
285	An Augmented Reality magic mirror as additive teaching device for gross anatomy. *Annals of Anatomy*, **2018**, 215, 71-77	2.9	54
284	. *IEEE Robotics and Automation Letters*, **2018**, 3, 3944-3951	4.2	19
283	Real-Time Fully Incremental Scene Understanding on Mobile Platforms. *IEEE Robotics and Automation Letters*, **2018**, 3, 3402-3409	4.2	10
282	Onkologische Chirurgie 4.0. *Onkologe*, **2018**, 24, 400-405	0.1	
281	Iterative algorithm for interactive co-segmentation using semantic information propagation. *Applied Intelligence*, **2018**, 48, 5019-5036	4.9	6
280	Plan in 2-D, execute in 3-D: an augmented reality solution for cup placement in total hip arthroplasty. *Journal of Medical Imaging*, **2018**, 5, 021205	2.6	22
279	On-the-fly augmented reality for orthopedic surgery using a multimodal fiducial. *Journal of Medical Imaging*, **2018**, 5, 021209	2.6	34
278	Colon Shape Estimation Method for Colonoscope Tracking Using Recurrent Neural Networks. *Lecture Notes in Computer Science*, **2018**, 176-184	0.9	3
277	Machine learning-based colon deformation estimation method for colonoscope tracking **2018**,		1
276	Initialize Globally Before Acting Locally: Enabling Landmark-Free 3D US to MRI Registration. *Lecture Notes in Computer Science*, **2018**, 827-835	0.9	5
275	Closing the Calibration Loop: An Inside-Out-Tracking Paradigm for Augmented Reality in Orthopedic Surgery. *Lecture Notes in Computer Science*, **2018**, 299-306	0.9	20
274	Spatial Compounding of 3-D Fetal Brain Ultrasound Using Probabilistic Maps. *Ultrasound in Medicine and Biology*, **2018**, 44, 278-291	3.5	3
273	Deep Learning Beamforming for Sub-Sampled Ultrasound Data **2018**,		10
272	Augmented reality-based feedback for technician-in-the-loop C-arm repositioning. *Healthcare Technology Letters*, **2018**, 5, 143-147	1.9	19
271	Automatic Quantification of Extra-Medial Thickness in Carotid Ultrasound **2018**,		1
270	The effect of attenuation map, scatter energy window width, and volume of interest on the calibration factor calculation in quantitative Lu SPECT imaging: Simulation and phantom study. *Physica Medica*, **2018**, 56, 74-80	2.7	4
269	Situation Assessment for Planning Lane Changes: Combining Recurrent Models and Prediction **2018**,		12

268	When Regression Meets Manifold Learning for Object Recognition and Pose Estimation **2018**,		9
267	Surgical soundtracks: automatic acoustic augmentation of surgical procedures. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 1345-1355	3.9	3
266	An Observer-Based Fusion Method Using Multicore Optical Shape Sensors and Ultrasound Images for Magnetically-Actuated Catheters **2018**,		12
265	Restoring the Awareness in the Occluded Visual Field for Optical See-Through Head-Mounted Displays. *IEEE Transactions on Visualization and Computer Graphics*, **2018**, 24, 2936-2946	4	11
264	Towards Efficient Visual Guidance in Limited Field-of-View Head-Mounted Displays. *IEEE Transactions on Visualization and Computer Graphics*, **2018**, 24, 2983-2992	4	28
263	Image guided percutaneous spine procedures using an optical see-through head mounted display: proof of concept and rationale. *Journal of NeuroInterventional Surgery*, **2018**, 10, 1187-1191	7.8	43
262	InfiNet: Fully convolutional networks for infant brain MRI segmentation **2018**,		6
261	Gallium-68 HBED-CC-PSMA Positron Emission Tomography/Magnetic Resonance Imaging for Prostate Fusion Biopsy. *Clinical Genitourinary Cancer*, **2018**, 16, 245-247	3.3	5
260	A radiation-free mixed-reality training environment and assessment concept for C-arm-based surgery. *International Journal of Computer Assisted Radiology and Surgery*, **2018**, 13, 1335-1344	3.9	14
259	Co-segmentation via visualization. *Journal of Visual Communication and Image Representation*, **2018**, 55, 201-214	2.7	2
258	Vascular image registration techniques: A living review. *Medical Image Analysis*, **2017**, 35, 1-17	15.4	25
257	Automatic Quantification of Tumour Hypoxia From Multi-Modal Microscopy Images Using Weakly-Supervised Learning Methods. *IEEE Transactions on Medical Imaging*, **2017**, 36, 1405-1417	11.7	3
256	Exploring non-reversing magic mirrors for screen-based augmented reality systems **2017**,		7
255	3D intra-operative ultrasound and MR image guidance: pursuing an ultrasound-based management of brainshift to enhance neuronavigation. *International Journal of Computer Assisted Radiology and Surgery*, **2017**, 12, 1711-1725	3.9	27
254	3D ultrasound registration-based visual servoing for neurosurgical navigation. *International Journal of Computer Assisted Radiology and Surgery*, **2017**, 12, 1607-1619	3.9	22
253	Hough-CNN: Deep learning for segmentation of deep brain regions in MRI and ultrasound. *Computer Vision and Image Understanding*, **2017**, 164, 92-102	4.3	196
252	Guiding multimodal registration with learned optimization updates. *Medical Image Analysis*, **2017**, 41, 2-17	15.4	13
251	Automatic Segmentation of Kidneys using Deep Learning for Total Kidney Volume Quantification in Autosomal Dominant Polycystic Kidney Disease. *Scientific Reports*, **2017**, 7, 2049	4.9	72

250	Pose-aware C-arm for automatic re-initialization of interventional 2D/3D image registration. *International Journal of Computer Assisted Radiology and Surgery*, **2017**, 12, 1221-1230	3.9	17
249	A BaSiC tool for background and shading correction of optical microscopy images. *Nature Communications*, **2017**, 8, 14836	17.4	99
248	On the reproducibility of expert-operated and robotic ultrasound acquisitions. *International Journal of Computer Assisted Radiology and Surgery*, **2017**, 12, 1003-1011	3.9	20
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18	Towards intra-operative 3D nuclear imaging: reconstruction of 3D radioactive distributions using tracked gamma probes. *Lecture Notes in Computer Science*, **2007**, 10, 909-17	0.9	34
17	Artifacts from misaligned CT in cardiac perfusion PET/CT studies: frequency, effects, and potential solutions. *Journal of Nuclear Medicine*, **2007**, 48, 188-93	8.9	100

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16	Canonical Representation and Multi-View Geometry of Cylinders. *International Journal of Computer Vision*, **2006**, 70, 133-149	10.6	17
15	Navigated three dimensional beta probe for optimal cancer resection. *Lecture Notes in Computer Science*, **2006**, 9, 561-9	0.9	12
14	Respiratory motion analysis: Towards gated augmentation of the liver. *International Congress Series* , **2005**, 1281, 248-253		13
13	Robot control by fluoroscopic guidance for minimally invasive spine procedures. *International Congress Series*, **2004**, 1268, 509-514		3
12	Developing killer apps for industrial augmented reality. *IEEE Computer Graphics and Applications*, **2004**, 24, 16-20	1.7	71
11	Recovering the X-ray projection geometry for three-dimensional tomographic reconstruction with additional sensors: attached camera versus external navigation system. *Medical Image Analysis*, **2003**, 7, 65-78	15.4	28
10	Lines in one orthographic and two perspective views. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2003**, 25, 912-917	13.3	3
9	. *IEEE Pervasive Computing*, **2003**, 2, 65-70	1.3	35
8	Registration of technical drawings and calibrated images for industrial augmented reality. *Machine Vision and Applications*, **2002**, 13, 111-118	2.8	12
7	Single-Point Active Alignment Method (SPAAM) for Optical See-Through HMD Calibration for Augmented Reality. *Presence: Teleoperators and Virtual Environments*, **2002**, 11, 259-276	2.9	63
6	Interactive optimization of 3D shape and 2D correspondence using multiple geometric constraints via POCS. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2002**, 24, 562-569	13.3	1
5	Enhanced 3-D-reconstruction algorithm for C-arm systems suitable for interventional procedures. *IEEE Transactions on Medical Imaging*, **2000**, 19, 391-403	11.7	129
4	The Critical Sets of Lines for Camera Displacement Estimation: A Mixed Euclidean-Projective and Constructive Approach. *International Journal of Computer Vision*, **1997**, 23, 17-44	10.6	15
3	Relative affine structure: canonical model for 3D from 2D geometry and applications. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **1996**, 18, 873-883	13.3	65
2	Information contained in the motion field of lines and the cooperation between motion and stereo. *International Journal of Imaging Systems and Technology*, **1990**, 2, 356-370	2.5	11
1	SoftPool++: An EncoderDecoder Network for Point Cloud Completion. *International Journal of Computer Vision*,1	10.6	