

Michael H Friebe

List of Publications by Year in descending order

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117
papers

678
citations

759233

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120
all docs

120
docs citations

120
times ranked

675
citing authors

#	ARTICLE	IF	CITATIONS
1	Collision Avoidance Route Planning for Autonomous Medical Devices Using Multiple Depth Cameras. IEEE Access, 2022, 10, 29903-29915.	4.2	3
2	Endoscopic Imaging Technology Today. Diagnostics, 2022, 12, 1262.	2.6	17
3	Next Generation 5G Mobile Health Network for User Interfacing in Radiology Workflows. IEEE Access, 2021, 9, 102899-102907.	4.2	4
4	Cyclist Effort Features: A Novel Technique for Image Texture Characterization Applied to Larynx Cancer Classification in Contact Endoscopy-Narrow Band Imaging. Diagnostics, 2021, 11, 432.	2.6	8
5	Collaborative Robot as Scrub Nurse. Current Directions in Biomedical Engineering, 2021, 7, 162-165.	0.4	4
6	A Structured Pathway Toward Disruption: A Novel HealthTec Innovation Design Curriculum With Entrepreneurship in Mind. Frontiers in Public Health, 2021, 9, 715768.	2.7	8
7	Study of needle punctures into soft tissue through audio and force sensing: can audio be a simple alternative for needle guidance?. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 1683-1697.	2.8	3
8	Vascular Auscultation of Carotid Artery: Towards Biometric Identification and Verification of Individuals. Sensors, 2021, 21, 6656.	3.8	1
9	BODYTUNE: Multi Auscultation Device - Personal Health Parameter Monitoring at Home. Current Directions in Biomedical Engineering, 2021, 7, 5-8.	0.4	1
10	Comparison of Deep Learning Algorithms for Semantic Segmentation of Ultrasound Thyroid Nodules. Current Directions in Biomedical Engineering, 2021, 7, 879-882.	0.4	7
11	Sensor-based measurement for advanced monitoring and early detection of PE wear in total knee arthroplasties. Current Directions in Biomedical Engineering, 2021, 7, 283-286.	0.4	0
12	Concept for parallel placement of flexible needles for Irreversible Electroporation. Current Directions in Biomedical Engineering, 2021, 7, 219-222.	0.4	0
13	Image processing-based mTICI grading after endovascular treatment for acute ischemic stroke. Current Directions in Biomedical Engineering, 2021, 7, 235-238.	0.4	0
14	Towards an intraoperative feedback system for laparoscopic access with the Veress needle. Current Directions in Biomedical Engineering, 2021, 7, 29-32.	0.4	0
15	Forecasting the Future of Healthcare Democratization. Current Directions in Biomedical Engineering, 2021, 7, 155-158.	0.4	2
16	Carotid Sound Signal Artifact Detection based on Discrete Wavelet Transform Decomposition. Current Directions in Biomedical Engineering, 2021, 7, 299-302.	0.4	0
17	State-of-the-Art: Biodesign based Innovation Ecosystems in Europe. Current Directions in Biomedical Engineering, 2021, 7, 231-234.	0.4	0
18	Deep Convolution Neural Network for Laryngeal Cancer Classification on Contact Endoscopy-Narrow Band Imaging. Sensors, 2021, 21, 8157.	3.8	9

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19	Operational framework and training standard requirements for AI-empowered robotic surgery. International Journal of Medical Robotics and Computer Assisted Surgery, 2020, 16, 1-13.	2.3	11
20	Superficial skin cancer therapy with Yb^{90} microspheres: A feasibility study on patch preparation. Skin Research and Technology, 2020, 26, 25-29.	1.6	5
21	Seizure prediction with cross-higher-order spectral analysis of EEG signals. Signal, Image and Video Processing, 2020, 14, 821-828.	2.7	6
22	A multiwell applicator for conformal brachytherapy of superficial skin tumors: A simulation study. Skin Research and Technology, 2020, 26, 537-541.	1.6	5
23	Surveyed impact of intellectual property training in STEM education on innovation, research, and development. Journal of World Intellectual Property, 2020, 23, 658-678.	0.6	1
24	Laryngeal Lesion Classification Based on Vascular Patterns in Contact Endoscopy and Narrow Band Imaging: Manual Versus Automatic Approach. Sensors, 2020, 20, 4018.	3.8	13
25	<p>Auscultation System for Acquisition of Vascular Sounds â€“ Towards Sound-Based Monitoring of the Carotid Artery</p>. Medical Devices: Evidence and Research, 2020, Volume 13, 349-364.	0.8	2
26	Thyroid Nodule Classification for Physician Decision Support Using Machine Learning-Evaluated Geometric and Morphological Features. Sensors, 2020, 20, 6110.	3.8	23
27	Evaluation of Vascular Patterns Using Contact Endoscopy and Narrow-Band Imaging (CE-NBI) for the Diagnosis of Vocal Fold Malignancy. Cancers, 2020, 12, 248.	3.7	14
28	Surgical audio information as base for haptic feedback in robotic-assisted procedures. Current Directions in Biomedical Engineering, 2020, 6, .	0.4	4
29	Surgical Audio Guidance: Feasibility Check for Robotic Surgery Procedures. Current Directions in Biomedical Engineering, 2020, 6, 571-574.	0.4	2
30	Acoustic sensing of tissue-tool interactions â€“ potential applications in arthroscopic surgery. Current Directions in Biomedical Engineering, 2020, 6, 595-598.	0.4	4
31	HealthTEC Innovation Design - a proposal for a novel Master degree program based on Unmet Clinical Need, global Healthcare Challenges, and 21st century skills. Current Directions in Biomedical Engineering, 2020, 6, 599-603.	0.4	3
32	Exploring the Possibilities to Characterize the Soft Tissue Using Acoustic Emission Waveforms. IFMBE Proceedings, 2020, , 9-14.	0.3	1
33	Feasibility Check: Can Audio Be a Simple Alternative to Force-Based Feedback for Needle Guidance?. Lecture Notes in Computer Science, 2020, , 24-33.	1.3	2
34	Endoscopic filter fluorometer for detection of accumulation of Protoporphyrin IX to improve photodynamic diagnostic (PDD). Current Directions in Biomedical Engineering, 2020, 6, .	0.4	0
35	Frequency and average gray-level information for thermal ablation status in ultrasound B-Mode sequences. Current Directions in Biomedical Engineering, 2020, 6, .	0.4	0
36	ENT Endoscopic Surgery and Mixed Reality. Advances in Bioinformatics and Biomedical Engineering Book Series, 2020, , 17-29.	0.4	0

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37	Innovative Hospital Management. International Journal of Biomedical and Clinical Engineering, 2020, 9, 33-47.	0.2	0
38	Integration of Acoustic Emission and Ultrasound for Needle Guidance in Interventional Procedures. International Journal of Biomedical and Clinical Engineering, 2020, 9, 45-55.	0.2	0
39	Improved Patient Safety Due to Catheter-Based Gas Bubble Removal During TURBT. International Journal of Biomedical and Clinical Engineering, 2020, 9, 1-11.	0.2	0
40	Endoscopic filter fluorometer for emission detection of Protoporphyrin IX and its direct precursors in PDT and PDD. Current Directions in Biomedical Engineering, 2020, 6, 587-590.	0.4	1
41	Manual versus Automatic Classification of Laryngeal Lesions based on Vascular Patterns in CE+NBI Images. Current Directions in Biomedical Engineering, 2020, 6, 70-73.	0.4	2
42	How do we need to adapt Biomedical Engineering Education for the Health 4.0 challenges?. Current Directions in Biomedical Engineering, 2020, 6, 604-607.	0.4	1
43	Novel flexible endoscope concept with swiveling camera tip. Current Directions in Biomedical Engineering, 2020, 6, 288-291.	0.4	0
44	Novel Assistive Device for Tomographic Ultrasound Neck Imaging vs. Freehand. Current Directions in Biomedical Engineering, 2020, 6, 28-31.	0.4	0
45	Is a thin diameter ureteroscope feasible for image guided intravascular procedures?. Current Directions in Biomedical Engineering, 2020, 6, 591-594.	0.4	0
46	Transverse dose profile simulation of extruded lines for a 3D printed models for superficial skin cancer therapy. Current Directions in Biomedical Engineering, 2020, 6, 559-562.	0.4	2
47	Anatomical Structure Segmentation in Ultrasound Volumes Using Cross Frame Belief Propagating Iterative Random Walks. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 1110-1118.	6.3	11
48	Setup and initial testing of an endoscope manipulator system for assistance in transoral endoscopic surgery. Biomedizinische Technik, 2019, 64, 347-356.	0.8	0
49	Novel automated vessel pattern characterization of larynx contact endoscopic video images. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 1751-1761.	2.8	13
50	<p>NITINOL-based actuator for device control even in high-field MRI environment</p>. Medical Devices: Evidence and Research, 2019, Volume 12, 285-296.	0.8	3
51	Remotely controllable phantom rotation system for ultra-high field MRI to improve Cross Calibration. Current Directions in Biomedical Engineering, 2019, 5, 429-431.	0.4	0
52	Audio waves and its loss of energy in puncture needles. Current Directions in Biomedical Engineering, 2019, 5, 21-24.	0.4	1
53	Thyroid Ultrasound Texture Classification Using Autoregressive Features in Conjunction With Machine Learning Approaches. IEEE Access, 2019, 7, 79354-79365.	4.2	27
54	Proximal detection of guide wire perforation using feature extraction from bispectral audio signal analysis combined with machine learning. Computers in Biology and Medicine, 2019, 107, 10-17.	7.0	15

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55	Epileptic seizure detection using cross-bispectrum of electroencephalogram signal. <i>Seizure: the Journal of the British Epilepsy Association</i> , 2019, 66, 4-11.	2.0	70
56	Parametrical modelling for texture characterization – A novel approach applied to ultrasound thyroid segmentation. <i>PLoS ONE</i> , 2019, 14, e0211215.	2.5	11
57	Radiation therapy techniques in the treatment of skin cancer: an overview of the current status and outlook. <i>Journal of Dermatological Treatment</i> , 2019, 30, 831-839.	2.2	27
58	A Preliminary Study on Automatic Characterization and Classification of Vascular Patterns of Contact Endoscopy Images. , 2019, 2019, 2703-2706.		4
59	Surgical Audio Guidance SurAG: Extracting Non-Invasively Meaningful Guidance Information During Minimally Invasive Procedures. , 2019, , .		6
60	Improved Acquisition of Vibroarthrographic Signals of the Knee Joint. , 2019, 2019, 1259-1262.		3
61	Design of an Auscultation System for Phonoangiography and Monitoring of Carotid Artery Diseases. , 2019, 2019, 1776-1779.		4
62	Feasibility and Initial Results of Assisted Ultrasound Scan Acquisition for Improved Tomographic Visualization. , 2019, , .		0
63	Feasibility test of Dynamic Cooling for detection of small tumors in IR thermographic breast imaging. <i>Current Directions in Biomedical Engineering</i> , 2019, 5, 397-399.	0.4	4
64	Computer Assisted Auscultation System for Phonoangiography of the Carotid Artery. <i>Current Directions in Biomedical Engineering</i> , 2019, 5, 175-178.	0.4	2
65	Temperature Controlled and Monitored Ex Vivo Lung Perfusion System for Research and Training Purposes. <i>Current Directions in Biomedical Engineering</i> , 2019, 5, 293-295.	0.4	0
66	Optical endovascular imaging combining endoscopy, NBI and OCT, a feasibility study. <i>Current Directions in Biomedical Engineering</i> , 2019, 5, 577-580.	0.4	3
67	Automated alignment detection of an additively manufactured Z-frame marker to process instrument targeting signals in interventional MRI. <i>Current Directions in Biomedical Engineering</i> , 2019, 5, 425-427.	0.4	0
68	Evaluation of MRI-compatible pneumatic muscle stepper motors. <i>Current Directions in Biomedical Engineering</i> , 2019, 5, 339-341.	0.4	1
69	Patch Based Texture Classification of Thyroid Ultrasound Images using Convolutional Neural Network. , 2019, 2019, 5828-5831.		7
70	A new 3D printed applicator with radioactive gel for conformal brachytherapy of superficial skin tumors. , 2019, 2019, 6979-6982.		2
71	Assessment of Sound Features for Needle Perforation Event Detection. , 2019, 2019, 2597-2600.		2
72	Novel Similarity Metric for Image-Based Out-Of-Plane Motion Estimation in 3D Ultrasound. , 2019, 2019, 5739-5742.		1

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73	<p>Injection And Infusion Technology Disruption For Use In MRI</p>. Medical Devices: Evidence and Research, 2019, Volume 12, 469-478.	0.8	0
74	Electrochemotherapy: A Review of Current Status, Alternative IGP Approaches, and Future Perspectives. Journal of Healthcare Engineering, 2019, 2019, 1-11.	1.9	59
75	Conformal radiofrequency ablation to validate ultrasound thermometry. , 2019, , .		0
76	RF-ablation pattern shaping employing switching channels of dual bipolar needle electrodes: ex vivo results. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 905-916.	2.8	8
77	Ultrasound thermal monitoring with an external ultrasound source for customized bipolar RF ablation shapes. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 815-826.	2.8	3
78	Conceptual design of a personalized radiation therapy patch for skin cancer. Current Directions in Biomedical Engineering, 2018, 4, 607-610.	0.4	6
79	Flexible interventional imaging system based on miniaturized X-ray tubes (FlexScan). Current Directions in Biomedical Engineering, 2018, 4, 63-66.	0.4	1
80	Proximally placed signal acquisition sensoric for robotic tissue tool interactions. Current Directions in Biomedical Engineering, 2018, 4, 67-70.	0.4	9
81	Vascular pattern detection and recognition in endoscopic imaging of the vocal folds. Current Directions in Biomedical Engineering, 2018, 4, 75-78.	0.4	5
82	In-room ultrasound fusion combined with fully compatible 3D-printed holding arm – rethinking interventional MRI. Medical Devices: Evidence and Research, 2018, Volume 11, 77-85.	0.8	3
83	Novel clinical device tracking and tissue event characterization using proximally placed audio signal acquisition and processing. Scientific Reports, 2018, 8, 12070.	3.3	27
84	Evaluation of Commonly Used Algorithms for Thyroid Ultrasound Images Segmentation and Improvement Using Machine Learning Approaches. Journal of Healthcare Engineering, 2018, 2018, 1-13.	1.9	44
85	A study of concentration changes of Protoporphyrin IX and Coproporphyrin III in mixed samples mimicking conditions inside cancer cells for Photodynamic Therapy. PLoS ONE, 2018, 13, e0202349.	2.5	8
86	Fiber-optic filter fluorometer for emission detection of Protoporphyrin IX and its direct precursors â€“ A preliminary study for improved Photodynamic Therapy applications. Results in Physics, 2018, 8, 1232-1233.	4.1	2
87	CUST: CNN for Ultrasound Thermal Image Reconstruction Using Sparse Time-of-Flight Information. Lecture Notes in Computer Science, 2018, , 29-37.	1.3	2
88	Innovation Generation, Disruption and Exponential Technologies in Medical Imaging. Informatik Aktuell, 2018, , 7-7.	0.6	0
89	Comparison of thyroid segmentation techniques for 3D ultrasound. Proceedings of SPIE, 2017, , .	0.8	11
90	Miniature CNT-based X-ray tube: assessment for use in intraoperative radiation therapy. Current Directions in Biomedical Engineering, 2017, 3, 643-646.	0.4	1

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91	Breast sentinel lymph node biopsy with imaging towards minimally invasive surgery. Biomedizinische Technik, 2017, 62, 547-555.	0.8	3
92	Intravascular endoscopy improvement through narrow-band imaging. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 2015-2021.	2.8	4
93	Trans-oral miniature X-ray radiation delivery system with endoscopic optical feedback. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1995-2002.	2.8	1
94	Evaluation and image quality comparison of ultra-thin fibre endoscopes for vascular endoscopy. Current Directions in Biomedical Engineering, 2017, 3, 231-233.	0.4	1
95	Cyclostationary analysis of ECG signals acquired inside an ultra-high field MRI scanner. , 2017, , .		1
96	INNOLAB- image guided surgery and therapy lab. Current Directions in Biomedical Engineering, 2017, 3, 235-237.	0.4	2
97	Time-varying Acoustic Emission Characterization for Guidewire Coronary Artery Perforation Identification. , 2017, , .		2
98	Active contours extension and similarity indicators for improved 3D segmentation of thyroid ultrasound images. Proceedings of SPIE, 2017, , .	0.8	8
99	US/MRI fusion with new optical tracking and marker approach for interventional procedures inside the MRI suite. Current Directions in Biomedical Engineering, 2016, 2, 459-462.	0.4	0
100	Resectoscope with an easy to use twist mechanism for improved handling. Current Directions in Biomedical Engineering, 2016, 2, 379-382.	0.4	0
101	Assessing MRI susceptibility artefact through an indicator of image distortion. Current Directions in Biomedical Engineering, 2016, 2, 427-431.	0.4	2
102	Computed tomography and magnetic resonance imaging contrast media injectors: technical feature review – what is really needed?. Medical Devices: Evidence and Research, 2016, Volume 9, 231-239.	0.8	8
103	Interactive monitoring system for visual respiratory biofeedback. Current Directions in Biomedical Engineering, 2016, 2, 723-726.	0.4	2
104	Inside-Out access strategy using new trans-vascular catheter approach. Current Directions in Biomedical Engineering, 2016, 2, 455-458.	0.4	1
105	Passive artifact behavior prediction of interventional tools in high-field MRI using a 0.55T portable benchtop MR scanner. , 2016, 2016, 1252-1255.		1
106	3D segmentation of thyroid ultrasound images using active contours. Current Directions in Biomedical Engineering, 2016, 2, 467-470.	0.4	13
107	Contactless respiratory monitoring system for magnetic resonance imaging applications using a laser range sensor. Current Directions in Biomedical Engineering, 2016, 2, 719-722.	0.4	2
108	Distortion indicator algorithm for simple artifact assessment of passive MRI markers. , 2016, 2016, 1248-1251.		0

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109	Intraoperative delivery of cell-killing boost radiation – a review of current and future methods. Minimally Invasive Therapy and Allied Technologies, 2016, 25, 176-187.	1.2	6
110	Advanced inside-out tracking approach for real-time combination of MRI and US images in the radio-frequency shielded room using combination markers. , 2016, 2016, 2558-2561.		2
111	Calibration free beam hardening correction using grangeat-based consistency measure. , 2016, , .		2
112	Image guided laryngoscopy versus laryngectomy surgery: Patient safety and system review. Cogent Engineering, 2016, 3, 1256563.	2.2	1
113	Image guided surgery innovation with graduate students - a new lecture format. Current Directions in Biomedical Engineering, 2015, 1, 475-479.	0.4	5
114	Combination of intra-operative freehand SPECT imaging with MR images for guidance and navigation. , 2013, 2013, 3383-6.		6
115	Magnetic Resonance-Guided Angioplasty With Delivery of Contrast-Media Doped Solutions to the Vessel Wall: An Experimental Study in Swine. Investigative Radiology, 2008, 43, 530-537.	6.2	13
116	Characterization of a Carotid Distension Waveform from Audio Signal Acquired with a Stethoscope. , 0, , .		2
117	A Database of Electrocardiogram Signals Acquired in Different Magnetic Resonance Imaging Scanners. , 0, , .		3