Michael I Miga

List of Publications by Year
in descending order

186 papers	5,598 citations	71102 41 h-index	88630 70 g-index
186 all docs	186 docs citations	186 times ranked	4045 citing authors

#	Article	IF	Citations
1	Intraoperative Brain Shift and Deformation: A Quantitative Analysis of Cortical Displacement in 28 Cases. Neurosurgery, 1998, 43, 749-758.	1.1	493
2	Regenerative Effects of Transplanted Mesenchymal Stem Cells in Fracture Healing. Stem Cells, 2009, 27, 1887-1898.	3.2	460
3	A computational model for tracking subsurface tissue deformation during stereotactic neurosurgery. IEEE Transactions on Biomedical Engineering, 1999, 46, 213-225.	4.2	190
4	Three-dimensional subzone-based reconstruction algorithm for MR elastography. Magnetic Resonance in Medicine, 2001, 45, 827-837.	3.0	153
5	Model-updated image guidance: initial clinical experiences with gravity-induced brain deformation. IEEE Transactions on Medical Imaging, 1999, 18, 866-874.	8.9	149
6	Clinically Relevant Modeling of Tumor Growth and Treatment Response. Science Translational Medicine, 2013, 5, 187ps9.	12.4	145
7	Cortical surface registration for image-guided neurosurgery using laser-range scanning. IEEE Transactions on Medical Imaging, 2003, 22, 973-985.	8.9	138
8	Modeling of Retraction and Resection for Intraoperative Updating of Images. Neurosurgery, 2001, 49, 75-85.	1.1	122
9	Intraoperatively Updated Neuroimaging Using Brain Modeling and Sparse Data. Neurosurgery, 1999, 45, 1199-1207.	1.1	116
10	Concepts and Preliminary Data Toward the Realization of Image-guided Liver Surgery. Journal of Gastrointestinal Surgery, 2007, 11, 844-859.	1.7	112
11	In vivo quantification of a homogeneous brain deformation model for updating preoperative images during surgery. IEEE Transactions on Biomedical Engineering, 2000, 47, 266-273.	4.2	109
12	Microwave image reconstruction utilizing log-magnitude and unwrapped phase to improve high-contrast object recovery. IEEE Transactions on Medical Imaging, 2001, 20, 104-116.	8.9	104
13	An atlas-based method to compensate for brain shift: Preliminary results. Medical Image Analysis, 2007, 11, 128-145.	11.6	99
14	Compensating for intraoperative soft-tissue deformations using incomplete surface data and finite elements. IEEE Transactions on Medical Imaging, 2005, 24, 1479-1491.	8.9	98
15	Magnetic resonance elastography using 3D gradient echo measurements of steady-state motion. Medical Physics, 2001, 28, 1620-1628.	3.0	96
16	Robust surface registration using salient anatomical features for image€guided liver surgery: Algorithm and validation. Medical Physics, 2008, 35, 2528-2540.	3.0	91
17	Predicting the Response of Breast Cancer to Neoadjuvant Therapy Using a Mechanically Coupled Reactionâ€"Diffusion Model. Cancer Research, 2015, 75, 4697-4707.	0.9	86
18	Remnant Growth Rate after Portal Vein Embolization Is a Good Early Predictor of Post-Hepatectomy Liver Failure. Journal of the American College of Surgeons, 2014, 219, 620-630.	0.5	84

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19	Sliding Mode Control of Steerable Needles. IEEE Transactions on Robotics, 2013, 29, 1289-1299.	10.3	81
20	A new approach to elastography using mutual information and finite elements. Physics in Medicine and Biology, 2003, 48, 467-480.	3.0	80
21	Incorporation of a laser range scanner into image-guided liver surgery: Surface acquisition, registration, and tracking. Medical Physics, 2003, 30, 1671-1682.	3.0	74
22	A method to track cortical surface deformations using a laser range scanner. IEEE Transactions on Medical Imaging, 2005, 24, 767-781.	8.9	74
23	Modeling of Retraction and Resection for Intraoperative Updating of Images. Neurosurgery, 2001, 49, 75-85.	1.1	69
24	Elasticity reconstruction from experimental MR displacement data: initial experience with an overlapping subzone finite element inversion process. Medical Physics, 2000, 27, 101-107.	3.0	68
25	A mechanically coupled reaction–diffusion model that incorporates intra-tumoural heterogeneity to predict <i>in vivo</i> glioma growth. Journal of the Royal Society Interface, 2017, 14, 20161010.	3.4	66
26	In vivo quantification of retraction deformation modeling for updated image-guidance during neurosurgery. IEEE Transactions on Biomedical Engineering, 2002, 49, 823-835.	4.2	65
27	In Vivo Modeling of Interstitial Pressure in the Brain Under Surgical Load Using Finite Elements. Journal of Biomechanical Engineering, 2000, 122, 354-363.	1.3	62
28	Liver Planning Software Accurately Predicts Postoperative Liver Volume and Measures Early Regeneration. Journal of the American College of Surgeons, 2014, 219, 199-207.	0.5	62
29	A mechanically coupled reaction–diffusion model for predicting the response of breast tumors to neoadjuvant chemotherapy. Physics in Medicine and Biology, 2013, 58, 5851-5866.	3.0	59
30	A Mechanics-Based Nonrigid Registration Method for Liver Surgery Using Sparse Intraoperative Data. IEEE Transactions on Medical Imaging, 2014, 33, 147-158.	8.9	59
31	Laser range scanning for image–guided neurosurgery: Investigation of image–to–physical space registrations. Medical Physics, 2008, 35, 1593-1605.	3.0	58
32	Near Real-Time Computer Assisted Surgery for Brain Shift Correction Using Biomechanical Models. IEEE Journal of Translational Engineering in Health and Medicine, 2014, 2, 1-13.	3.7	57
33	Optimizing Electrode Placement Using Finite-Element Models in Radiofrequency Ablation Treatment Planning. IEEE Transactions on Biomedical Engineering, 2009, 56, 237-245.	4.2	53
34	Three-dimensional image-based mechanical modeling for predicting the response of breast cancer to neoadjuvant therapy. Computer Methods in Applied Mechanics and Engineering, 2017, 314, 494-512.	6.6	53
35	Modality Independent Elastography (MIE): A New Approach to Elasticity Imaging. IEEE Transactions on Medical Imaging, 2004, 23, 1117-1128.	8.9	52
36	Intraoperative Brain Shift Compensation: Accounting for Dural Septa. IEEE Transactions on Biomedical Engineering, 2011, 58, 499-508.	4.2	48

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37	Kidney Deformation and Intraprocedural Registration: A Study of Elements of Image-Guided Kidney Surgery. Journal of Endourology, 2011, 25, 511-517.	2.1	47
38	Comparison Study of Intraoperative Surface Acquisition Methods for Surgical Navigation. IEEE Transactions on Biomedical Engineering, 2013, 60, 1090-1099.	4.2	46
39	Texture Analysis of Preoperative CT Images for Prediction of Postoperative Hepatic Insufficiency: A Preliminary Study. Journal of the American College of Surgeons, 2015, 220, 339-346.	0.5	46
40	Predicting *in vivo* glioma growth with the reaction diffusion equation constrained by quantitative magnetic resonance imaging data. Physical Biology, 2015, 12, 046006.	1.8	42
41	Clinical evaluation of a model-updated image-guidance approach to brain shift compensation: experience in 16 cases. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1467-1474.	2.8	42
42	A Fast and Efficient Method to Compensate for Brain Shift for Tumor Resection Therapies Measured Between Preoperative and Postoperative Tomograms. IEEE Transactions on Biomedical Engineering, 2010, 57, 1285-1296.	4.2	41
43	Model-updated image-guided liver surgery: Preliminary results using surface characterization. Progress in Biophysics and Molecular Biology, 2010, 103, 197-207.	2.9	41
44	Error analysis for a free-hand three-dimensional ultrasound system for neuronavigation. Neurosurgical Focus, 1999, 6, E7.	2.3	39
45	Improving Registration Robustness for Image-Guided Liver Surgery in a Novel Human-to-Phantom Data Framework. IEEE Transactions on Medical Imaging, 2017, 36, 1502-1510.	8.9	38
46	A Predictive Mathematical Modeling Approach for the Study of Doxorubicin Treatment in Triple Negative Breast Cancer. Scientific Reports, 2017, 7, 5725.	3.3	37
47	Von Neumann stability analysis of Biot's general two-dimensional theory of consolidation. International Journal for Numerical Methods in Engineering, 1998, 43, 955-974.	2.8	32
48	In Vivo Analysis of Heterogeneous Brain Deformation Computations for Model-Updated Image Guidance. Computer Methods in Biomechanics and Biomedical Engineering, 2000, 3, 129-146.	1.6	30
49	Semiautomatic Registration of Pre- and Postbrain Tumor Resection Laser Range Data: Method and Validation. IEEE Transactions on Biomedical Engineering, 2009, 56, 770-780.	4.2	30
50	Towards image guided robotic surgery: multi-arm tracking through hybrid localization. International Journal of Computer Assisted Radiology and Surgery, 2009, 4, 281-286.	2.8	30
51	Chemotherapy-Induced Splenic Volume Increase Is Independently Associated with Major Complications after Hepatic Resection for Metastatic Colorectal Cancer. Journal of the American College of Surgeons, 2015, 220, 271-280.	0.5	30
52	Biophysical Modeling of InÂVivo Glioma Response After Whole-Brain Radiation Therapy in a Murine Model of Brain Cancer. International Journal of Radiation Oncology Biology Physics, 2018, 100, 1270-1279.	0.8	29
53	Realization of a biomechanical model-assisted image guidance system for breast cancer surgery using supine MRI. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 1985-1996.	2.8	28
54	Model-Updated Image-Guided Neurosurgery Using the Finite Element Method: Incorporation of the Falx Cerebri. Lecture Notes in Computer Science, 1999, 1679, 900-909.	1.3	27

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55	Mechanically Coupled Reaction-Diffusion Model to Predict Glioma Growth: Methodological Details. Methods in Molecular Biology, 2018, 1711, 225-241.	0.9	27
56	Characterization and correction of intraoperative soft tissue deformation in image-guided laparoscopic liver surgery. Journal of Medical Imaging, 2017, 5, 1.	1.5	27
57	Organ Surface Deformation Measurement and Analysis in Open Hepatic Surgery: Method and Preliminary Results From 12 Clinical Cases. IEEE Transactions on Biomedical Engineering, 2011, 58, 2280-2289.	4.2	26
58	Breast tissue stiffness estimation for surgical guidance using gravity-induced excitation. Physics in Medicine and Biology, 2017, 62, 4756-4776.	3.0	23
59	Deformation correction for image guided liver surgery: An intraoperative fidelity assessment. Surgery, 2017, 162, 537-547.	1.9	23
60	Tracking of Vessels in Intra-Operative Microscope Video Sequences for Cortical Displacement Estimation. IEEE Transactions on Biomedical Engineering, 2011, 58, 1985-1993.	4.2	22
61	Evaluation of Conoscopic Holography for Estimating Tumor Resection Cavities in Model-Based Image-Guided Neurosurgery. IEEE Transactions on Biomedical Engineering, 2014, 61, 1833-1843.	4.2	22
62	Evaluation of model-based deformation correction in image-guided liver surgery via tracked intraoperative ultrasound. Journal of Medical Imaging, 2016, 3, 015003.	1.5	22
63	Computational Modeling for Enhancing Soft Tissue Image Guided Surgery: An Application in Neurosurgery. Annals of Biomedical Engineering, 2016, 44, 128-138.	2.5	22
64	Updated Neuroimaging Using Intraoperative Brain Modeling and Sparse Data. Stereotactic and Functional Neurosurgery, 1999, 72, 103-106.	1.5	20
65	Modality independent elastography (MIE): Potential applications in dermoscopy. Medical Physics, 2005, 32, 1308-1320.	3.0	20
66	Development of a mechanical testing assay for fibrotic murine liver. Medical Physics, 2007, 34, 4439-4450.	3.0	20
67	Design and evaluation of an optically-tracked single-CCD laser range scanner. Medical Physics, 2012, 39, 636-642.	3.0	20
68	Current and emerging quantitative magnetic resonance imaging methods for assessing and predicting the response of breast cancer to neoadjuvant therapy. Breast Cancer: Targets and Therapy, 2012, 2012, 139.	1.8	20
69	Intraoperative Correction of Liver Deformation Using Sparse Surface and Vascular Features via Linearized Iterative Boundary Reconstruction. IEEE Transactions on Medical Imaging, 2020, 39, 2223-2234.	8.9	20
70	Model-Based Correction of Tissue Compression for Tracked Ultrasound in Soft Tissue Image-Guided Surgery. Ultrasound in Medicine and Biology, 2014, 40, 788-803.	1.5	19
71	Initial in-vivo analysis of 3D heterogeneous brain computations for model-updated image-guided neurosurgery. Lecture Notes in Computer Science, 1998, 1496, 743-752.	1.3	18
72	Coregistered Ultrasound as a Neurosurgical Guide. Stereotactic and Functional Neurosurgery, 1999, 73, 143-147.	1.5	18

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73	Intraoperative Cortical Surface Characterization using Laser Range Scanning: Preliminary Results. Operative Neurosurgery, 2006, 59, ONS-368-ONS-377.	0.8	18
74	Estimation of intra-operative brain shift using a tracked laser range scanner. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 848-51.	0.5	18
75	A finite element inverse analysis to assess functional improvement during the fracture healing process. Journal of Biomechanics, 2010, 43, 557-562.	2.1	18
76	Preliminary investigation of the inhibitory effects of mechanical stress in tumor growth. Proceedings of SPIE, 2008, , .	0.8	17
77	Persistent and automatic intraoperative 3D digitization of surfaces under dynamic magnifications of an operating microscope. Medical Image Analysis, 2015, 19, 30-45.	11.6	17
78	Integrating Retraction Modeling Into an Atlas-Based Framework for Brain Shift Prediction. IEEE Transactions on Biomedical Engineering, 2013, 60, 3494-3504.	4.2	16
79	Augmenting Surgery via Multi-scale Modeling and Translational Systems Biology in the Era of Precision Medicine: A Multidisciplinary Perspective. Annals of Biomedical Engineering, 2016, 44, 2611-2625.	2.5	16
80	Image-Guided Abdominal Surgery and Therapy Delivery. Journal of Healthcare Engineering, 2012, 3, 203-228.	1.9	14
81	Model-Updated Image-Guided Neurosurgery: PreliminaryÂAnalysisÂUsingÂIntraoperativeÂMR. Lecture Notes in Computer Science, 2000, 1935, 115-124.	1.3	13
82	Intraoperative registration of the liver for image-guided surgery using laser range scanning and deformable models. , 2003, , .		13
83	Cortical Shift Tracking Using a Laser Range Scanner and Deformable Registration Methods. Lecture Notes in Computer Science, 2003, 2879, 166-174.	1.3	13
84	Atlas-based method for model updating in image-guided liver surgery. , 2007, , .		13
85	Modeling surgical loads to account for subsurface tissue deformation during stereotactic neurosurgery. , 1998, , .		12
86	Automatic Generation of Boundary Conditions Using Demons Nonrigid Image Registration for Use in 3-D Modality-Independent Elastography. IEEE Transactions on Biomedical Engineering, 2011, 58, 2607-2616.	4.2	12
87	Retrospective study comparing model-based deformation correction to intraoperative magnetic resonance imaging for image-guided neurosurgery. Journal of Medical Imaging, 2017, 4, 1.	1.5	12
88	Non-rigid registration of breast surfaces using the laplace and diffusion equations. BioMedical Engineering OnLine, 2010, 9, 8.	2.7	11
89	Impact of deformation on a supine-positioned image-guided breast surgery approach. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 2055-2066.	2.8	11
90	Phantom-based comparison of the accuracy of point clouds extracted from stereo cameras and laser range scanner. Proceedings of SPIE, 2013, , .	0.8	10

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91	Assessing the accuracy and reproducibility of modality independent elastography in a murine model of breast cancer. Journal of Medical Imaging, 2015, 2, 036001.	1.5	10
92	A comparison of thin-plate spline deformation and finite element modeling to compensate for brain shift during tumor resection. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 75-85.	2.8	10
93	Utility of Image Guidance in the Localization of Disappearing Colorectal Liver Metastases. Journal of Gastrointestinal Surgery, 2019, 23, 760-767.	1.7	9
94	Cortical Surface Registration Using Texture Mapped Point Clouds and Mutual Information. Lecture Notes in Computer Science, 2002, , 533-540.	1.3	8
95	Model-Updated Image Guidance: A Statistical Approach to Gravity-Induced Brain Shift. Lecture Notes in Computer Science, 2003, 2878, 375-382.	1.3	8
96	Uncertainty propagation and analysis of image-guided surgery. , 2011, , .		8
97	Toward a generic real-time compression correction framework for tracked ultrasound. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 1777-1792.	2.8	8
98	Biophysical model–based parameters to classify tumor recurrence from radiation–induced necrosis for brain metastases. Medical Physics, 2019, 46, 2487-2496.	3.0	8
99	A hybrid, image-based and biomechanics-based registration approach to markerless intraoperative nodule localization during video-assisted thoracoscopic surgery. Medical Image Analysis, 2021, 69, 101983.	11.6	8
100	<title>Fast accurate surface acquisition using a laser range scanner for image-guided liver surgery</title>. , 2002, , .		7
101	Comparison of microCT and an inverse finite element approach for biomechanical analysis: Results in a mesenchymal stem cell therapeutic system for fracture healing. Journal of Biomechanics, 2012, 45, 2164-2170.	2.1	7
102	Model-Assisted Image-Guided Liver Surgery Using Sparse Intraoperative Data. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2012, , 7-40.	1.0	7
103	Toward a preoperative planning tool for brain tumor resection therapies. International Journal of Computer Assisted Radiology and Surgery, 2013, 8, 87-97.	2.8	7
104	Clinical assessment of a biophysical model for distinguishing tumor progression from radiation necrosis. Medical Physics, 2021, 48, 3852-3859.	3.0	7
105	Preliminary results comparing thin-plate splines with finite element methods for modeling brain deformation during neurosurgery using intraoperative ultrasound. , 2019, 10951, .		7
106	Sensitivity analysis and automation for intraoperative implementation of the atlas-based method for brain shift correction. , 2013, , .		6
107	Automatic tracking of intraoperative brain surface displacements in brain tumor surgery. , 2014, 2014, 1509-12.		6
108	Initial Experience with Using a Structured Light 3D Scanner and Image Registration to Plan Bedside Subdural Evacuating Port System Placement. World Neurosurgery, 2020, 137, 350-356.	1.3	6

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109	An Integrated Multi-physics Finite Element Modeling Framework for Deep Brain Stimulation: Preliminary Study on Impact of Brain Shift on Neuronal Pathways. Lecture Notes in Computer Science, 2019, , 682-690.	1.3	6
110	Development and evaluation of a â€œtrackerlessâ€•surgical planning and guidance system based on 3D Slicer. Journal of Medical Imaging, 2019, 6, 1.	1.5	6
111	Analysis of model-updated MR images to correct for brain deformation due to tissue retraction. , 2003, , .		5
112	A novel model-gel-tissue assay analysis for comparing tumor elastic properties to collagen content. Biomechanics and Modeling in Mechanobiology, 2009, 8, 337-343.	2.8	5
113	A consistent pre-clinical/clinical elastography approach for assessing tumor mechanical properties in therapeutic systems. , 2013, , .		5
114	Image to physical space registration of supine breast MRI for image guided breast surgery. , 2014, , .		5
115	A novel method for texture-mapping conoscopic surfaces for minimally invasive image-guided kidney surgery. International Journal of Computer Assisted Radiology and Surgery, 2016, 11, 1515-1526.	2.8	5
116	Strain Energy Decay Predicts Elastic Registration Accuracy From Intraoperative Data Constraints. IEEE Transactions on Medical Imaging, 2021, 40, 1290-1302.	8.9	5
117	Stereovision-based integrated system for point cloud reconstruction and simulated brain shift validation. Journal of Medical Imaging, 2017, 4, 1.	1.5	5
118	In vivo modeling of interstitial pressure in a porcine model: approximation of poroelastic properties and effects of enhanced anatomical structure modeling. Journal of Medical Imaging, 2018, 5, 1.	1.5	5
119	Accounting for intraoperative brain shift ascribable to cavity collapse during intracranial tumor resection. Journal of Medical Imaging, 2020, 7, 1.	1.5	5
120	Source localization using a current-density minimization approach. IEEE Transactions on Biomedical Engineering, 2002, 49, 743-745.	4.2	4
121	Non-rigid Registration of Serial Intra-operative Images for Automatic Brain Shift Estimation. Lecture Notes in Computer Science, 2003, 2717, 61-70.	1.3	4
122	Automated brain shift correction using a pre-computed deformation atlas. , 2006, 6141, 430.		4
123	Automatic segmentation of cortical vessels in pre- and post-tumor resection laser range scan images. Proceedings of SPIE, 2009, , .	0.8	4
124	Development of a novel laser range scanner. , 2011, , .		4
125	Nonrigid liver registration for image-guided surgery using partial surface data: a novel iterative approach. , 2013, , .		4
126	Android application for determining surgical variables in brain-tumor resection procedures. Journal of Medical Imaging, 2017, 4, 015003.	1.5	4

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127	Biphasic Model Of Lung Deformations For Video-Assisted Thoracoscopic Surgery (VATS). , 2019, , .		4
128	Toward Image Data-Driven Predictive Modeling for Guiding Thermal Ablative Therapy. IEEE Transactions on Biomedical Engineering, 2020, 67, 1548-1557.	4.2	4
129	Accounting for Deformation in Deep Brain Stimulation Surgery With Models: Comparison to Interventional Magnetic Resonance Imaging. IEEE Transactions on Biomedical Engineering, 2020, 67, 2934-2944.	4.2	4
130	Impact of brain shift on neural pathways in deep brain stimulation: a preliminary analysis via multi-physics finite element models. Journal of Neural Engineering, 2021, 18, 056009.	3.5	4
131	A Novel Clinically Immersive Pre-doctoral Training Program for Engineering in Surgery and Intervention: Initial Realization and Preliminary Results. Biomedical Engineering Education, 2021, 1, 259-276.	0.7	4
132	A comprehensive model-assisted brain shift correction approach in image-guided neurosurgery: a case study in brain swelling and subsequent sag after craniotomy. , 2019, , .		4
133	Multiphysics modeling toward enhanced guidance in hepatic microwave ablation: a preliminary framework. Journal of Medical Imaging, 2019, 6, 1.	1.5	4
134	<title>Comparison of an incremental versus single-step retraction model for intraoperative compensation</title>. , 2001, , .		3
135	Identification of deformation using invariant surface information. , 2004, , .		3
136	An evaluative tool for preoperative planning of brain tumor resection. Proceedings of SPIE, 2010, , .	0.8	3
137	Intraoperative brain tumor resection cavity characterization with conoscopic holography. , 2012, , .		3
138	Preliminary study of a novel method for conveying corrected image volumes in surgical navigation. International Journal of Medical Robotics and Computer Assisted Surgery, 2013, 9, 109-118.	2.3	3
139	A novel craniotomy simulation system for evaluation of stereo-pair reconstruction fidelity and tracking. , 2016, , .		3
140	Differentiating tumor recurrence from radiation-induced necrosis: An image-based mathematical modeling framework. , 2018, , .		3
141	Image Guidance in Robotic-Assisted Renal Surgery. , 2015, , 221-241.		3
142	Toward quantitative quasistatic elastography with a gravity-induced deformation source for image-guided breast surgery. Journal of Medical Imaging, 2018, 5, 1.	1.5	3
143	Fat Quantification Imaging and Biophysical Modeling for Patient-Specific Forecasting of Microwave Ablation Therapy. Frontiers in Physiology, 2021, 12, 820251.	2.8	3
144	<title>Finite element modeling of tissue retraction and resection for preoperative neuroimage compensation concurrent with surgery</title>. , 2001, , .		2

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145	Modeling surgical procedures to assist in understanding surgical approach. , 2007, , .		2
146	Validation and reproducibility assessment of modality independent elastography in a pre-clinical model of breast cancer. , 2014, , .		2
147	Validation of model-based deformation correction in image-guided liver surgery via tracked intraoperative ultrasound: preliminary method and results. Proceedings of SPIE, 2015, , .	0.8	2
148	Technical note: Nonrigid registration for laparoscopic liver surgery using sparse intraoperative data. , 2018, , .		2
149	Development of a mechanics-based model of brain deformations during intracerebral hemorrhage evacuation. Proceedings of SPIE, 2017, , .	0.8	2
150	Special Section Guest Editorial: Technology Platforms for Treatment and Discovery in Human Systems: Novel Work in Image-Guided Procedures, Robotic Interventions, and Modeling. Journal of Medical Imaging, 2018, 5, 1.	1.5	2
151	The image-to-physical liver registration sparse data challenge. , 2019, , .		2
152	Tumor deformation correction for an image guidance system in breast conserving surgery. , 2022, , .		2
153	Laser range scanning for cortical surface characterization during neurosurgery. , 2003, , .		1
154	Robust vessel registration and tracking of microscope video images in tumor resection neurosurgery. , 2009, , .		1
155	Enhancement of subsurface brain shift model accuracy: a preliminary study. Proceedings of SPIE, 2010, , .	0.8	1
156	Utilizing ultrasound as a surface digitization tool in image guided liver surgery. , 2012, , .		1
157	Registration of liver images to minimally invasive intraoperative surface and subsurface data. Proceedings of SPIE, 2014, , .	0.8	1
158	Development of a diaphragmatic motion-based elastography framework for assessment of liver stiffness. , 2015, , .		1
159	Organ Deformation and Navigation. , 2015, , 121-132.		1
160	Determination of surgical variables for a brain shift correction pipeline using an Android application. Proceedings of SPIE, 2016, , .	0.8	1
161	A system for automatic monitoring of surgical instruments and dynamic, non-rigid surface deformations in breast cancer surgery. , 2018, 10576, .		1
162	Liver segmentation in color images. , 2017, , .		1

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163	Validation of model-based brain shift correction in neurosurgery via intraoperative magnetic resonance imaging: preliminary results. Proceedings of SPIE, 2017, , .	0.8	1
164	Integrated system for point cloud reconstruction and simulated brain shift validation using tracked surgical microscope. , 2017, , .		1
165	Model-based correction for brain shift in deep brain stimulation burr hole procedures: a comparison using interventional magnetic resonance imaging. , 2018, , .		1
166	Trackerless surgical image-guided system design using an interactive extension of 3D Slicer. , 2018, , .		1
167	Intra-operative Measurement of Brain Deformation. Biological and Medical Physics Series, 2019, , 303-319.	0.4	1
168	Special Section Guest Editorial: Interventional and Surgical Data Science for Data-Driven Patient Outcomes. Journal of Medical Imaging, 2020, 7, 1.	1.5	1
169	Breast image registration for surgery: insights on material mechanics modeling. , 2022, , .		1
170	Biomechanical Modeling for Image Registration. Biomedical Engineering Series, 2001, , 331-362.	0.4	0
171	Quantifying Mechanical Properties in a Murine Fracture Healing System Using an Inverse Geometric Nonlinear Elasticity Modeling Framework. Lecture Notes in Computer Science, 2010, , 29-37.	1.3	0
172	Utilizing a reference material for assessing absolute tumor mechanical properties in modality independent elastography. , 2014, , .		0
173	Voxel-level reproducibility assessment of modality independent elastography in a pre-clinical murine model. , 2015, , .		0
174	Introduction to the Special Section on Clinical Applications of Multi-Scale Modeling. Annals of Biomedical Engineering, 2016, 44, 2589-2590.	2.5	0
175	Characterization of a phantom setup for breast conserving cancer surgery. , 2016, , .		0
176	Abstract A42: A mechanically coupled reaction-diffusion model for predicting in vivo C6 glioma growth in rats. , 2015, , .		0
177	Abstract A09: Predicting response to whole brain radiotherapy in a murine model of glioma. , 2017, , .		0
178	Abstract A14: Predicting the response of triple negative breast cancer to doxorubicin. , 2017, , .		0
179	Emulation of the laparoscopic environment for image-guided liver surgery via an abdominal phantom system with anatomical ligamenture. Proceedings of SPIE, 2017, , .	0.8	0
180	Towards quantitative quasi-static elastography with a gravity-induced deformation source. , 2017, , .		0

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181	Using an Android application to assess registration strategies in open hepatic procedures: a planning and simulation tool. , 2017, , .		0
182	On the nature of data collection for soft-tissue image-to-physical organ registration: a noise characterization study. , 2017, , .		0
183	IMAGE-GUIDED PROCEDURES IN SURGERY AND INTERVENTION: CHALLENGES IN IMAGE-TO-PHYSICAL REGISTRATION AND BEYOND. , 2018, , 233-256.		0
184	Toward a Patient-Specific Image Data-Driven Predictive Modeling Framework for Guiding Microwave Ablative Therapy. Lecture Notes in Computational Vision and Biomechanics, 2020, , 198-207.	0.5	0
185	Digital application to display brain shift simulation in tumor resection procedures. , 2022, , .		0
186	Registration uncertainty in deforming organs: a novel approach for ensuring navigational confidence during image-guided procedures. , 2022, , .		0