

Michael I Miga

List of Publications by Year in descending order

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Version: 2024-02-01

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	Tumor deformation correction for an image guidance system in breast conserving surgery. , 2022, , .		2
2	Breast image registration for surgery: insights on material mechanics modeling. , 2022, , .		1
3	Digital application to display brain shift simulation in tumor resection procedures. , 2022, , .		0
4	Registration uncertainty in deforming organs: a novel approach for ensuring navigational confidence during image-guided procedures. , 2022, , .		0
5	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
6	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
7	Strain Energy Decay Predicts Elastic Registration Accuracy From Intraoperative Data Constraints. IEEE Transactions on Medical Imaging, 2021, 40, 1290-1302.	8.9	5
8	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
9	Clinical assessment of a biophysical model for distinguishing tumor progression from radiation necrosis. Medical Physics, 2021, 48, 3852-3859.	3.0	7
10	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
11	Fat Quantification Imaging and Biophysical Modeling for Patient-Specific Forecasting of Microwave Ablation Therapy. Frontiers in Physiology, 2021, 12, 820251.	2.8	3
12	Toward Image Data-Driven Predictive Modeling for Guiding Thermal Ablative Therapy. IEEE Transactions on Biomedical Engineering, 2020, 67, 1548-1557.	4.2	4
13	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
14	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
15	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
16	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
17	Accounting for intraoperative brain shift ascribable to cavity collapse during intracranial tumor resection. Journal of Medical Imaging, 2020, 7, 1.	1.5	5
18	Special Section Guest Editorial: Interventional and Surgical Data Science for Data-Driven Patient Outcomes. Journal of Medical Imaging, 2020, 7, 1.	1.5	1

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19	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
20	Biphasic Model Of Lung Deformations For Video-Assisted Thoracoscopic Surgery (VATS). , 2019, , .		4
21	Utility of Image Guidance in the Localization of Disappearing Colorectal Liver Metastases. Journal of Gastrointestinal Surgery, 2019, 23, 760-767.	1.7	9
22	Biophysical modelâ€based parameters to classify tumor recurrence from radiationâ€induced necrosis for brain metastases. Medical Physics, 2019, 46, 2487-2496.	3.0	8
23	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
24	Preliminary results comparing thin-plate splines with finite element methods for modeling brain deformation during neurosurgery using intraoperative ultrasound. , 2019, 10951, .		7
25	Intra-operative Measurement of Brain Deformation. Biological and Medical Physics Series, 2019, , 303-319.	0.4	1
26	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
27	The image-to-physical liver registration sparse data challenge. , 2019, , .		2
28	Multiphysics modeling toward enhanced guidance in hepatic microwave ablation: a preliminary framework. Journal of Medical Imaging, 2019, 6, 1.	1.5	4
29	Development and evaluation of a â€trackerlessâ€surgical planning and guidance system based on 3D Slicer. Journal of Medical Imaging, 2019, 6, 1.	1.5	6
30	Mechanically Coupled Reaction-Diffusion Model to Predict Glioma Growth: Methodological Details. Methods in Molecular Biology, 2018, 1711, 225-241.	0.9	27
31	Biophysical Modeling of InÂVivo 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
32	A system for automatic monitoring of surgical instruments and dynamic, non-rigid surface deformations in breast cancer surgery. , 2018, 10576, .		1
33	Differentiating tumor recurrence from radiation-induced necrosis: An image-based mathematical modeling framework. , 2018, , .		3
34	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
35	Technical note: Nonrigid registration for laparoscopic liver surgery using sparse intraoperative data. , 2018, , .		2
36	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

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37	Model-based correction for brain shift in deep brain stimulation burr hole procedures: a comparison using interventional magnetic resonance imaging. , 2018, , .		1
38	Trackerless surgical image-guided system design using an interactive extension of 3D Slicer. , 2018, , .		1
39	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
40	IMAGE-GUIDED PROCEDURES IN SURGERY AND INTERVENTION: CHALLENGES IN IMAGE-TO-PHYSICAL REGISTRATION AND BEYOND. , 2018, , 233-256.		0
41	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
42	Breast tissue stiffness estimation for surgical guidance using gravity-induced excitation. Physics in Medicine and Biology, 2017, 62, 4756-4776.	3.0	23
43	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
44	Android application for determining surgical variables in brain-tumor resection procedures. Journal of Medical Imaging, 2017, 4, 015003.	1.5	4
45	Deformation correction for image guided liver surgery: An intraoperative fidelity assessment. Surgery, 2017, 162, 537-547.	1.9	23
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	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
48	Stereovision-based integrated system for point cloud reconstruction and simulated brain shift validation. Journal of Medical Imaging, 2017, 4, 1.	1.5	5
49	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
50	Characterization and correction of intraoperative soft tissue deformation in image-guided laparoscopic liver surgery. Journal of Medical Imaging, 2017, 5, 1.	1.5	27
51	Liver segmentation in color images. , 2017, , .		1
52	Validation of model-based brain shift correction in neurosurgery via intraoperative magnetic resonance imaging: preliminary results. Proceedings of SPIE, 2017, , .	0.8	1
53	Abstract A09: Predicting response to whole brain radiotherapy in a murine model of glioma. , 2017, , .		0
54	Abstract A14: Predicting the response of triple negative breast cancer to doxorubicin. , 2017, , .		0

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55	Integrated system for point cloud reconstruction and simulated brain shift validation using tracked surgical microscope. , 2017, , .		1
56	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
57	Towards quantitative quasi-static elastography with a gravity-induced deformation source. , 2017, , .		0
58	Using an Android application to assess registration strategies in open hepatic procedures: a planning and simulation tool. , 2017, , .		0
59	On the nature of data collection for soft-tissue image-to-physical organ registration: a noise characterization study. , 2017, , .		0
60	Development of a mechanics-based model of brain deformations during intracerebral hemorrhage evacuation. Proceedings of SPIE, 2017, , .	0.8	2
61	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
62	Determination of surgical variables for a brain shift correction pipeline using an Android application. Proceedings of SPIE, 2016, , .	0.8	1
63	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
64	Introduction to the Special Section on Clinical Applications of Multi-Scale Modeling. Annals of Biomedical Engineering, 2016, 44, 2589-2590.	2.5	0
65	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
66	A novel craniotomy simulation system for evaluation of stereo-pair reconstruction fidelity and tracking. , 2016, , .		3
67	Characterization of a phantom setup for breast conserving cancer surgery. , 2016, , .		0
68	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
69	Computational Modeling for Enhancing Soft Tissue Image Guided Surgery: An Application in Neurosurgery. Annals of Biomedical Engineering, 2016, 44, 128-138.	2.5	22
70	Development of a diaphragmatic motion-based elastography framework for assessment of liver stiffness. , 2015, , .		1
71	Predicting <i>in vivo</i> glioma growth with the reaction diffusion equation constrained by quantitative magnetic resonance imaging data. Physical Biology, 2015, 12, 046006.	1.8	42
72	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

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73	Voxel-level reproducibility assessment of modality independent elastography in a pre-clinical murine model. , 2015, , .		0
74	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
75	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
76	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
77	Organ Deformation and Navigation. , 2015, , 121-132.		1
78	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
79	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
80	Predicting the Response of Breast Cancer to Neoadjuvant Therapy Using a Mechanically Coupled Reaction-Diffusion Model. Cancer Research, 2015, 75, 4697-4707.	0.9	86
81	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
82	Image Guidance in Robotic-Assisted Renal Surgery. , 2015, , 221-241.		3
83	Abstract A42: A mechanically coupled reaction-diffusion model for predicting in vivo C6 glioma growth in rats. , 2015, , .		0
84	Registration of liver images to minimally invasive intraoperative surface and subsurface data. Proceedings of SPIE, 2014, , .	0.8	1
85	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
86	Automatic tracking of intraoperative brain surface displacements in brain tumor surgery. , 2014, 2014, 1509-12.		6
87	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
88	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
89	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
90	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

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91	Model-Based Correction of Tissue Compression for Tracked Ultrasound in Soft Tissue Image-Guided Surgery. <i>Ultrasound in Medicine and Biology</i> , 2014, 40, 788-803.	1.5	19
92	Utilizing a reference material for assessing absolute tumor mechanical properties in modality independent elastography. , 2014, , .		0
93	Image to physical space registration of supine breast MRI for image guided breast surgery. , 2014, , .		5
94	Validation and reproducibility assessment of modality independent elastography in a pre-clinical model of breast cancer. , 2014, , .		2
95	Sliding Mode Control of Steerable Needles. <i>IEEE Transactions on Robotics</i> , 2013, 29, 1289-1299.	10.3	81
96	Comparison Study of Intraoperative Surface Acquisition Methods for Surgical Navigation. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 1090-1099.	4.2	46
97	Integrating Retraction Modeling Into an Atlas-Based Framework for Brain Shift Prediction. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 3494-3504.	4.2	16
98	Toward a preoperative planning tool for brain tumor resection therapies. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2013, 8, 87-97.	2.8	7
99	Preliminary study of a novel method for conveying corrected image volumes in surgical navigation. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2013, 9, 109-118.	2.3	3
100	A consistent pre-clinical/clinical elastography approach for assessing tumor mechanical properties in therapeutic systems. , 2013, , .		5
101	Phantom-based comparison of the accuracy of point clouds extracted from stereo cameras and laser range scanner. <i>Proceedings of SPIE</i> , 2013, , .	0.8	10
102	Sensitivity analysis and automation for intraoperative implementation of the atlas-based method for brain shift correction. , 2013, , .		6
103	Clinically Relevant Modeling of Tumor Growth and Treatment Response. <i>Science Translational Medicine</i> , 2013, 5, 187ps9.	12.4	145
104	A mechanically coupled reactionâ€“diffusion model for predicting the response of breast tumors to neoadjuvant chemotherapy. <i>Physics in Medicine and Biology</i> , 2013, 58, 5851-5866.	3.0	59
105	Nonrigid liver registration for image-guided surgery using partial surface data: a novel iterative approach. , 2013, , .		4
106	Design and evaluation of an optically-tracked single-CCD laser range scanner. <i>Medical Physics</i> , 2012, 39, 636-642.	3.0	20
107	Current and emerging quantitative magnetic resonance imaging methods for assessing and predicting the response of breast cancer to neoadjuvant therapy. <i>Breast Cancer: Targets and Therapy</i> , 2012, 2012, 139.	1.8	20
108	Utilizing ultrasound as a surface digitization tool in image guided liver surgery. , 2012, , .		1

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109	Intraoperative brain tumor resection cavity characterization with conoscopic holography. , 2012, , .		3
110	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
111	Model-Assisted Image-Guided Liver Surgery Using Sparse Intraoperative Data. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2012, , 7-40.	1.0	7
112	Image-Guided Abdominal Surgery and Therapy Delivery. Journal of Healthcare Engineering, 2012, 3, 203-228.	1.9	14
113	Intraoperative Brain Shift Compensation: Accounting for Dural Septa. IEEE Transactions on Biomedical Engineering, 2011, 58, 499-508.	4.2	48
114	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
115	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
116	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
117	Kidney Deformation and Intraprocedural Registration: A Study of Elements of Image-Guided Kidney Surgery. Journal of Endourology, 2011, 25, 511-517.	2.1	47
118	Uncertainty propagation and analysis of image-guided surgery. , 2011, , .		8
119	Development of a novel laser range scanner. , 2011, , .		4
120	Enhancement of subsurface brain shift model accuracy: a preliminary study. Proceedings of SPIE, 2010, , .	0.8	1
121	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
122	Model-updated image-guided liver surgery: Preliminary results using surface characterization. Progress in Biophysics and Molecular Biology, 2010, 103, 197-207.	2.9	41
123	A finite element inverse analysis to assess functional improvement during the fracture healing process. Journal of Biomechanics, 2010, 43, 557-562.	2.1	18
124	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
125	An evaluative tool for preoperative planning of brain tumor resection. Proceedings of SPIE, 2010, , .	0.8	3
126	Non-rigid registration of breast surfaces using the laplace and diffusion equations. BioMedical Engineering OnLine, 2010, 9, 8.	2.7	11

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127	Robust vessel registration and tracking of microscope video images in tumor resection neurosurgery. , 2009, , .		1
128	Automatic segmentation of cortical vessels in pre- and post-tumor resection laser range scan images. Proceedings of SPIE, 2009, , .	0.8	4
129	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
130	Optimizing Electrode Placement Using Finite-Element Models in Radiofrequency Ablation Treatment Planning. IEEE Transactions on Biomedical Engineering, 2009, 56, 237-245.	4.2	53
131	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
132	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
133	Regenerative Effects of Transplanted Mesenchymal Stem Cells in Fracture Healing. Stem Cells, 2009, 27, 1887-1898.	3.2	460
134	Preliminary investigation of the inhibitory effects of mechanical stress in tumor growth. Proceedings of SPIE, 2008, , .	0.8	17
135	Laser range scanning for image-guided neurosurgery: Investigation of image-to-physical space registrations. Medical Physics, 2008, 35, 1593-1605.	3.0	58
136	Robust surface registration using salient anatomical features for image-guided liver surgery: Algorithm and validation. Medical Physics, 2008, 35, 2528-2540.	3.0	91
137	Development of a mechanical testing assay for fibrotic murine liver. Medical Physics, 2007, 34, 4439-4450.	3.0	20
138	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
139	Atlas-based method for model updating in image-guided liver surgery. , 2007, , .		13
140	Modeling surgical procedures to assist in understanding surgical approach. , 2007, , .		2
141	Concepts and Preliminary Data Toward the Realization of Image-guided Liver Surgery. Journal of Gastrointestinal Surgery, 2007, 11, 844-859.	1.7	112
142	An atlas-based method to compensate for brain shift: Preliminary results. Medical Image Analysis, 2007, 11, 128-145.	11.6	99
143	Intraoperative Cortical Surface Characterization using Laser Range Scanning: Preliminary Results. Operative Neurosurgery, 2006, 59, ONS-368-ONS-377.	0.8	18
144	Automated brain shift correction using a pre-computed deformation atlas. , 2006, 6141, 430.		4

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145	Modality independent elastography (MIE): Potential applications in dermoscopy. Medical Physics, 2005, 32, 1308-1320.	3.0	20
146	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
147	A method to track cortical surface deformations using a laser range scanner. IEEE Transactions on Medical Imaging, 2005, 24, 767-781.	8.9	74
148	Modality Independent Elastography (MIE): A New Approach to Elasticity Imaging. IEEE Transactions on Medical Imaging, 2004, 23, 1117-1128.	8.9	52
149	Identification of deformation using invariant surface information. , 2004, , .		3
150	A new approach to elastography using mutual information and finite elements. Physics in Medicine and Biology, 2003, 48, 467-480.	3.0	80
151	Cortical surface registration for image-guided neurosurgery using laser-range scanning. IEEE Transactions on Medical Imaging, 2003, 22, 973-985.	8.9	138
152	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
153	Laser range scanning for cortical surface characterization during neurosurgery. , 2003, , .		1
154	Intraoperative registration of the liver for image-guided surgery using laser range scanning and deformable models. , 2003, , .		13
155	Analysis of model-updated MR images to correct for brain deformation due to tissue retraction. , 2003, , .		5
156	Cortical Shift Tracking Using a Laser Range Scanner and Deformable Registration Methods. Lecture Notes in Computer Science, 2003, 2879, 166-174.	1.3	13
157	Model-Updated Image Guidance: A Statistical Approach to Gravity-Induced Brain Shift. Lecture Notes in Computer Science, 2003, 2878, 375-382.	1.3	8
158	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
159	<title>Fast accurate surface acquisition using a laser range scanner for image-guided liver surgery</title>. , 2002, , .		7
160	Cortical Surface Registration Using Texture Mapped Point Clouds and Mutual Information. Lecture Notes in Computer Science, 2002, , 533-540.	1.3	8
161	Source localization using a current-density minimization approach. IEEE Transactions on Biomedical Engineering, 2002, 49, 743-745.	4.2	4
162	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

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163	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
164	Modeling of Retraction and Resection for Intraoperative Updating of Images. Neurosurgery, 2001, 49, 75-85.	1.1	122
165	Modeling of Retraction and Resection for Intraoperative Updating of Images. Neurosurgery, 2001, 49, 75-85.	1.1	69
166	Biomechanical Modeling for Image Registration. Biomedical Engineering Series, 2001, , 331-362.	0.4	0
167	<title>Comparison of an incremental versus single-step retraction model for intraoperative compensation</title>. , 2001, , .		3
168	<title>Finite element modeling of tissue retraction and resection for preoperative neuroimage compensation concurrent with surgery</title>. , 2001, , .		2
169	Three-dimensional subzone-based reconstruction algorithm for MR elastography. Magnetic Resonance in Medicine, 2001, 45, 827-837.	3.0	153
170	Magnetic resonance elastography using 3D gradient echo measurements of steady-state motion. Medical Physics, 2001, 28, 1620-1628.	3.0	96
171	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
172	Model-Updated Image-Guided Neurosurgery: Preliminary Analysis Using Intraoperative MR. Lecture Notes in Computer Science, 2000, 1935, 115-124.	1.3	13
173	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
174	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
175	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
176	Coregistered Ultrasound as a Neurosurgical Guide. Stereotactic and Functional Neurosurgery, 1999, 73, 143-147.	1.5	18
177	Updated Neuroimaging Using Intraoperative Brain Modeling and Sparse Data. Stereotactic and Functional Neurosurgery, 1999, 72, 103-106.	1.5	20
178	A computational model for tracking subsurface tissue deformation during stereotactic neurosurgery. IEEE Transactions on Biomedical Engineering, 1999, 46, 213-225.	4.2	190
179	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
180	Model-updated image guidance: initial clinical experiences with gravity-induced brain deformation. IEEE Transactions on Medical Imaging, 1999, 18, 866-874.	8.9	149

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181	Intraoperatively Updated Neuroimaging Using Brain Modeling and Sparse Data. <i>Neurosurgery</i> , 1999, 45, 1199-1207.	1.1	116
182	Error analysis for a free-hand three-dimensional ultrasound system for neuronavigation. <i>Neurosurgical Focus</i> , 1999, 6, E7.	2.3	39
183	Von Neumann stability analysis of Biot's general two-dimensional theory of consolidation. <i>International Journal for Numerical Methods in Engineering</i> , 1998, 43, 955-974.	2.8	32
184	Initial in-vivo analysis of 3D heterogeneous brain computations for model-updated image-guided neurosurgery. <i>Lecture Notes in Computer Science</i> , 1998, 1496, 743-752.	1.3	18
185	Modeling surgical loads to account for subsurface tissue deformation during stereotactic neurosurgery. , 1998, , .		12
186	Intraoperative Brain Shift and Deformation: A Quantitative Analysis of Cortical Displacement in 28 Cases. <i>Neurosurgery</i> , 1998, 43, 749-758.	1.1	493