Thomas Edward Yankeelov

List of Publications by Year
in descending order

242	9,261	41258 49	60497 81
papers	citations	h-index	g-index

258	258	258	10003
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Imaging biomarker roadmap for cancer studies. Nature Reviews Clinical Oncology, 2017, 14, 169-186.	12.5	792
2	Dynamic Contrast Enhanced Magnetic Resonance Imaging in Oncology:Theory, Data Acquisition,Analysis, and Examples. Current Medical Imaging, 2007, 3, 91-107.	0.4	325
3	Integration of quantitative DCE-MRI and ADC mapping to monitor treatment response in human breast cancer: initial results. Magnetic Resonance Imaging, 2007, 25, 1-13.	1.0	291
4	Quantitative pharmacokinetic analysis of DCE-MRI data without an arterial input function: a reference region model. Magnetic Resonance Imaging, 2005, 23, 519-529.	1.0	254
5	Variation of the relaxographic ?shutter-speed? for transcytolemmal water exchange affects the CR bolus-tracking curve shape. Magnetic Resonance in Medicine, 2003, 50, 1151-1169.	1.9	171
6	Simulating the spread of COVID-19 via a spatially-resolved susceptibleâ€"exposedâ€"infectedâ€"recoveredâ€"deceased (SEIRD) model with heterogeneous diffusion. Applied Mathematics Letters, 2021, 111, 106617.	1.5	156
7	Integrating spatially resolved three-dimensional MALDI IMS with in vivo magnetic resonance imaging. Nature Methods, 2008, 5, 57-59.	9.0	153
8	The 2019 mathematical oncology roadmap. Physical Biology, 2019, 16, 041005.	0.8	147
9	Clinically Relevant Modeling of Tumor Growth and Treatment Response. Science Translational Medicine, 2013, 5, 187ps9.	5.8	145
10	Amide proton transfer imaging of the breast at 3 T: Establishing reproducibility and possible feasibility assessing chemotherapy response. Magnetic Resonance in Medicine, 2013, 70, 216-224.	1.9	140
11	Characterization of tissue structure at varying length scales using temporal diffusion spectroscopy. NMR in Biomedicine, 2010, 23, 745-756.	1.6	131
12	Multiparametric Magnetic Resonance Imaging for Predicting Pathological Response After the First Cycle of Neoadjuvant Chemotherapy in Breast Cancer. Investigative Radiology, 2015, 50, 195-204.	3.5	126
13	Variations of Dynamic Contrast-Enhanced Magnetic Resonance Imaging in Evaluation of Breast Cancer Therapy Response: A Multicenter Data Analysis Challenge. Translational Oncology, 2014, 7, 153-166.	1.7	120
14	Quantitative Imaging in Cancer Clinical Trials. Clinical Cancer Research, 2016, 22, 284-290.	3.2	106
15	Quantitative multimodality imaging in cancer research and therapy. Nature Reviews Clinical Oncology, 2014, 11, 670-680.	12.5	105
16	DCEâ€MRI analysis methods for predicting the response of breast cancer to neoadjuvant chemotherapy: Pilot study findings. Magnetic Resonance in Medicine, 2014, 71, 1592-1602.	1.9	100
17	Mathematical models of tumor cell proliferation: A review of the literature. Expert Review of Anticancer Therapy, 2018, 18, 1271-1286.	1.1	91
18	Simultaneous measurement of arterial input function and tumor pharmacokinetics in mice by dynamic contrast enhanced imaging: Effects of transcytolemmal water exchange. Magnetic Resonance in Medicine, 2004, 52, 248-257.	1.9	86

#	Article	IF	Citations
19	Comparison of a reference region model with direct measurement of an AIF in the analysis of DCE-MRI data. Magnetic Resonance in Medicine, 2007, 57, 353-361.	1.9	86
20	Predicting the Response of Breast Cancer to Neoadjuvant Therapy Using a Mechanically Coupled Reactionâ€“Diffusion Model. Cancer Research, 2015, 75, 4697-4707.	0.4	86
21	Evidence for shutter-speed variation in CR bolus-tracking studies of human pathology. NMR in Biomedicine, 2005, 18, 173-185.	1.6	85
22	Magnetic resonance in the era of molecular imaging of cancer. Magnetic Resonance Imaging, 2011, 29, 587-600.	1.0	82
23	Methods and Challenges in Quantitative Imaging Biomarker Development. Academic Radiology, 2015, 22, 25-32.	1.3	80
24	Clinical Utility of Quantitative Imaging. Academic Radiology, 2015, 22, 33-49.	1.3	79
25	Accuracy, repeatability, and interplatform reproducibility of T₁ quantification methods used for DCEâ€MRI: Results from a multicenter phantom study. Magnetic Resonance in Medicine, 2018, 79, 2564-2575.	1.9	75
26	Toward a Science of Tumor Forecasting for Clinical Oncology. Cancer Research, 2015, 75, 918-923.	0.4	74
27	Recent trends in the age at diagnosis of colorectal cancer in the US National Cancer Data Base, 2004â€2015. Cancer, 2019, 125, 3828-3835.	2.0	74
28	Î±2Î²1 integrin expression in the tumor microenvironment enhances tumor angiogenesis in a tumor cellâ€“specific manner. Blood, 2008, 111, 1980-1988.	0.6	73
29	Selection, calibration, and validation of models of tumor growth. Mathematical Models and Methods in Applied Sciences, 2016, 26, 2341-2368.	1.7	71
30	The Impact of Arterial Input Function Determination Variations on Prostate Dynamic Contrast-Enhanced Magnetic Resonance Imaging Pharmacokinetic Modeling: A Multicenter Data Analysis Challenge. Tomography, 2016, 2, 56-66.	0.8	70
31	Parameterizing the Logistic Model of Tumor Growth by DW-MRI and DCE-MRI Data to Predict Treatment Response and Changes in Breast Cancer Cellularity during Neoadjuvant Chemotherapy. Translational Oncology, 2013, 6, 256-264.	1.7	69
32	Practical Dynamic Contrast Enhanced MRI in Small Animal Models of Cancer: Data Acquisition, Data Analysis, and Interpretation. Pharmaceutics, 2012, 4, 442-478.	2.0	68
33	Shutter-speed analysis of contrast reagent bolus-tracking data: Preliminary observations in benign and malignant breast disease. Magnetic Resonance in Medicine, 2005, 53, 724-729.	1.9	67
34	Early assessment of breast cancer response to neoadjuvant chemotherapy by semi-quantitative analysis of high-temporal resolution DCE-MRI: Preliminary results. Magnetic Resonance Imaging, 2013, 31, 1457-1464.	1.0	67
35	Simultaneous PETâ€“MRI in oncology: a solution looking for a problem?. Magnetic Resonance Imaging, 2012, 30, 1342-1356.	1.0	66
36	Multi-scale Modeling in Clinical Oncology: Opportunities and Barriers to Success. Annals of Biomedical Engineering, 2016, 44, 2626-2641.	1.3	66

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37	Demonstration of nonlinearity bias in the measurement of the apparent diffusion coefficient in multicenter trials. Magnetic Resonance in Medicine, 2016, 75, 1312-1323.	1.9	66
38	A mechanically coupled reactionâ€“diffusion model that incorporates intra-tumoural heterogeneity to predict <i>in vivo</i> glioma growth. Journal of the Royal Society Interface, 2017, 14, 20161010.	1.5	66
39	Diffusionâ€“reaction compartmental models formulated in a continuum mechanics framework: application to COVID-19, mathematical analysis, and numerical study. Computational Mechanics, 2020, 66, 1131-1152.	2.2	63
40	A novel AIF tracking method and comparison of DCE-MRI parameters using individual and population-based AIFs in human breast cancer. Physics in Medicine and Biology, 2011, 56, 5753-5769.	1.6	60
41	Selection and validation of predictive models of radiation effects on tumor growth based on noninvasive imaging data. Computer Methods in Applied Mechanics and Engineering, 2017, 327, 277-305.	3.4	60
42	Real-Time Compressive Sensing MRI Reconstruction Using GPU Computing and Split Bregman Methods. International Journal of Biomedical Imaging, 2012, 2012, 1-6.	3.0	59
43	A mechanically coupled reactionâ€“diffusion model for predicting the response of breast tumors to neoadjuvant chemotherapy. Physics in Medicine and Biology, 2013, 58, 5851-5866.	1.6	59
44	A nonrigid registration algorithm for longitudinal breast MR images and the analysis of breast tumor response. Magnetic Resonance Imaging, 2009, 27, 1258-1270.	1.0	58
45	Amide proton transfer imaging of the human breast at 7T: development and reproducibility. NMR in Biomedicine, 2013, 26, 1271-1277.	1.6	58
46	Repeatability of a reference region model for analysis of murine DCE-MRI data at 7T. Journal of Magnetic Resonance Imaging, 2006, 24, 1140-1147.	1.9	56
47	New Insights into Tumor Microstructure Using Temporal Diffusion Spectroscopy. Cancer Research, 2008, 68, 5941-5947.	0.4	56
48	Measuring Tumor Perfusion in Control and Treated Murine Tumors. Journal of Ultrasound in Medicine, 2007, 26, 749-756.	0.8	54
49	Comparison of dual-echo DSC-MRI- and DCE-MRI-derived contrast agent kinetic parameters. Magnetic Resonance Imaging, 2012, 30, 944-953.	1.0	53
50	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.	3.4	53
51	Errors in Quantitative Image Analysis due to Platform-Dependent Image Scaling. Translational Oncology, 2014, 7, 65-71.	1.7	51
52	Phase I trial of vorinostat added to chemoradiation with capecitabine in pancreatic cancer. Radiotherapy and Oncology, 2016, 119, 312-318.	0.3	51
53	Multi-parametric MRI characterization of inflammation in murine skeletal muscle. NMR in Biomedicine, 2014, 27, 716-725.	1.6	49
54	In vitro vascularized liver and tumor tissue microenvironments on a chip for dynamic determination of nanoparticle transport and toxicity. Biotechnology and Bioengineering, 2019, 116, 1201-1219.	1.7	49

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55	Quantitative effects of using compressed sensing in dynamic contrast enhanced MRI. Physics in Medicine and Biology, 2011, 56, 4933-4946.	1.6	48
56	A quantitative comparison of the influence of individual versus populationâ€derived vascular input functions on dynamic contrast enhancedâ€MRI in small animals. Magnetic Resonance in Medicine, 2012, 67, 226-236.	1.9	48
57	Machine learning for predicting the response of breast cancer to neoadjuvant chemotherapy. Journal of the American Medical Informatics Association: JAMIA, 2013, 20, 688-695.	2.2	48
58	Incorporating contrast agent diffusion into the analysis of DCEâ€MRI data. Magnetic Resonance in Medicine, 2007, 58, 1124-1134.	1.9	47
59	Assessing metastatic potential of breast cancer cells based on EGFR dynamics. Scientific Reports, 2019, 9, 3395.	1.6	45
60	High relaxivity MRI imaging reagents from bimodal star polymers. Polymer Chemistry, 2012, 3, 390-398.	1.9	44
61	Quantitative analysis of vascular properties derived from ultrafast DCEâ€MRI to discriminate malignant and benign breast tumors. Magnetic Resonance in Medicine, 2019, 81, 2147-2160.	1.9	44
62	The Impact of Arterial Input Function Determination Variations on Prostate Dynamic Contrast-Enhanced Magnetic Resonance Imaging Pharmacokinetic Modeling: A Multicenter Data Analysis Challenge, Part II. Tomography, 2019, 5, 99-109.	0.8	44
63	Predicting<i>in vivo</i>glioma growth with the reaction diffusion equation constrained by quantitative magnetic resonance imaging data. Physical Biology, 2015, 12, 046006.	0.8	42
64	A hybrid model of tumor growth and angiogenesis: In silico experiments. PLoS ONE, 2020, 15, e0231137.	1.1	42
65	Integration of diffusionâ€weighted MRI data and a simple mathematical model to predict breast tumor cellularity during neoadjuvant chemotherapy. Magnetic Resonance in Medicine, 2011, 66, 1689-1696.	1.9	41
66	Incorporating drug delivery into an imaging-driven, mechanics-coupled reaction diffusion model for predicting the response of breast cancer to neoadjuvant chemotherapy: theory and preliminary clinical results. Physics in Medicine and Biology, 2018, 63, 105015.	1.6	41
67	Earlier detection of tumor treatment response using magnetic resonance diffusion imaging with oscillating gradients. Magnetic Resonance Imaging, 2011, 29, 315-323.	1.0	40
68	Optimal Control Theory for Personalized Therapeutic Regimens in Oncology: Background, History, Challenges, and Opportunities. Journal of Clinical Medicine, 2020, 9, 1314.	1.0	40
69	Correlation Between Estimates of Tumor Perfusion From Microbubble Contrast-Enhanced Sonography and Dynamic Contrast-Enhanced Magnetic Resonance Imaging. Journal of Ultrasound in Medicine, 2006, 25, 487-497.	0.8	39
70	The integration of quantitative multi-modality imaging data into mathematical models of tumors. Physics in Medicine and Biology, 2010, 55, 2429-2449.	1.6	39
71	A fully coupled spaceâ€“time multiscale modeling framework for predicting tumor growth. Computer Methods in Applied Mechanics and Engineering, 2017, 320, 261-286.	3.4	39
72	Evaluating patient-specific neoadjuvant regimens for breast cancer via a mathematical model constrained by quantitative magnetic resonance imaging data. Neoplasia, 2020, 22, 820-830.	2.3	39

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73	Statistical comparison of dynamic contrastâ€enhanced MRI pharmacokinetic models in human breast cancer. Magnetic Resonance in Medicine, 2012, 68, 261-271.	1.9	38
74	Repeatability, reproducibility, and accuracy of quantitative mri of the breast in the community radiology setting. Journal of Magnetic Resonance Imaging, 2018, 48, 695-707.	1.9	38
75	Incorporating the effects of transcytolemmal water exchange in a reference region model for DCEâ€MRI analysis: Theory, simulations, and experimental results. Magnetic Resonance in Medicine, 2008, 59, 326-335.	1.9	37
76	CCR7 Modulates the Generation of Thymic Regulatory T Cells by Altering the Composition of the Thymic Dendritic Cell Compartment. Cell Reports, 2017, 21, 168-180.	2.9	37
77	A Predictive Mathematical Modeling Approach for the Study of Doxorubicin Treatment in Triple Negative Breast Cancer. Scientific Reports, 2017, 7, 5725.	1.6	37
78	Temporal sampling requirements for reference region modeling of DCEâ€MRI data in human breast cancer. Journal of Magnetic Resonance Imaging, 2009, 30, 121-134.	1.9	36
79	A comparison of two methods for estimating DCE-MRI parameters via individual and cohort based AIFs in prostate cancer: A step towards practical implementation. Magnetic Resonance Imaging, 2014, 32, 321-329.	1.0	36
80	Correlation of tumor characteristics derived from DCE-MRI and DW-MRI with histology in murine models of breast cancer. NMR in Biomedicine, 2015, 28, 1345-1356.	1.6	36
81	Sonographic Depiction of Microvessel Perfusion. Journal of Ultrasound in Medicine, 2004, 23, 1499-1506.	0.8	35
82	Comparisons of the Efficacy of a Jak1/2 Inhibitor (AZD1480) with a VEGF Signaling Inhibitor (Cediranib) and Sham Treatments in Mouse Tumors Using DCE-MRI, DW-MRI, and Histology. Neoplasia, 2012, 14, 54-64.	2.3	35
83	Analyzing Spatial Heterogeneity in DCE- and DW-MRI Parametric Maps to Optimize Prediction of Pathologic Response to Neoadjuvant Chemotherapy in Breast Cancer. Translational Oncology, 2014, 7, 14-22.	1.7	35
84	Trastuzumab improves tumor perfusion and vascular delivery of cytotoxic therapy in a murine model of HER2+ breast cancer: preliminary results. Breast Cancer Research and Treatment, 2016, 155, 273-284.	1.1	35
85	The Role of Magnetic Resonance Imaging Biomarkers in Clinical Trials of Treatment Response in Cancer. Seminars in Oncology, 2011, 38, 16-25.	0.8	34
86	Experimentally-driven mathematical modeling to improve combination targeted and cytotoxic therapy for HER2+ breast cancer. Scientific Reports, 2019, 9, 12830.	1.6	34
87	Image-based personalization of computational models for predicting response of high-grade glioma to chemoradiation. Scientific Reports, 2021, 11, 8520.	1.6	34
88	MR Imaging Biomarkers in Oncology Clinical Trials. Magnetic Resonance Imaging Clinics of North America, 2016, 24, 11-29.	0.6	33
89	A hybrid three-scale model of tumor growth. Mathematical Models and Methods in Applied Sciences, 2018, 28, 61-93.	1.7	33
90	Biologically-Based Mathematical Modeling of Tumor Vasculature and Angiogenesis via Time-Resolved Imaging Data. Cancers, 2021, 13, 3008.	1.7	33

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91	Current and Future Trends in Magnetic Resonance Imaging Assessments of the Response of Breast Tumors to Neoadjuvant Chemotherapy. Journal of Oncology, 2010, 2010, 1-17.	0.6	32
92	On the relationship between the apparent diffusion coefficient and extravascular extracellular volume fraction in human breast cancer. Magnetic Resonance Imaging, 2011, 29, 630-638.	1.0	32
93	Optimization of 7-T Chemical Exchange Saturation Transfer Parameters for Validation of Glycosaminoglycan and Amide Proton Transfer of Fibroglandular Breast Tissue. Radiology, 2015, 275, 255-261.	3.6	32
94	Precision Medicine with Imprecise Therapy: Computational Modeling for Chemotherapy in Breast Cancer. Translational Oncology, 2018, 11, 732-742.	1.7	32
95	Mathematical modelling of trastuzumab-induced immune response in an in vivo murine model of HER2+ breast cancer. Mathematical Medicine and Biology, 2019, 36, 381-410.	0.8	32
96	Automatic nonrigid registration of whole body CT mice images. Medical Physics, 2008, 35, 1507-1520.	1.6	30
97	Assessing reproducibility of diffusion-weighted magnetic resonance imaging studies in a murine model of HER2+ breast cancer. Magnetic Resonance Imaging, 2014, 32, 245-249.	1.0	30
98	Calibrating a Predictive Model of Tumor Growth and Angiogenesis with Quantitative MRI. Annals of Biomedical Engineering, 2019, 47, 1539-1551.	1.3	30
99	Mean Apparent Diffusion Coefficient Is a Sufficient Conventional Diffusion-weighted MRI Metric to Improve Breast MRI Diagnostic Performance: Results from the ECOG-ACRIN Cancer Research Group A6702 Diffusion Imaging Trial. Radiology, 2021, 298, 60-70.	3.6	30
100	Noninvasive Assessment of Tumor Vasculature Response to Radiation-Mediated, Vasculature-Targeted Therapy Using Quantified Power Doppler Sonography. Journal of Ultrasound in Medicine, 2006, 25, 1507-1517.	0.8	29
101	Motion correction in diffusionâ€weighted MRI of the breast at 3T. Journal of Magnetic Resonance Imaging, 2011, 33, 1063-1070.	1.9	29
102	A Multi-Institutional Comparison of Dynamic Contrast-Enhanced Magnetic Resonance Imaging Parameter Calculations. Scientific Reports, 2017, 7, 11185.	1.6	29
103	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.	0.4	29
104	The effects of IKK-beta inhibition on early NF-kappa-B activation and transcription of downstream genes. Cellular Signalling, 2019, 55, 17-25.	1.7	29
105	Evaluating treatment response using DW-MRI and DCE-MRI in trastuzumab responsive and resistant HER2-overexpressing human breast cancer xenografts. Translational Oncology, 2014, 7, 768-779.	1.7	28
106	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.	1.7	28
107	Towards integration of 64Cu-DOTA-trastuzumab PET-CT and MRI with mathematical modeling to predict response to neoadjuvant therapy in HER2â€‰+â€‰breast cancer. Scientific Reports, 2020, 10, 20518.	1.6	28
108	Multiparametric Analysis of Longitudinal Quantitative MRI Data to Identify Distinct Tumor Habitats in Preclinical Models of Breast Cancer. Cancers, 2020, 12, 1682.	1.7	28

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109	Forecasting tumor and vasculature response dynamics to radiation therapy via image based mathematical modeling. Radiation Oncology, 2020, 15, 4.	1.2	28
110	Molecular Imaging Without Radiopharmaceuticals?. Journal of Nuclear Medicine, 2009, 50, 999-1007.	2.8	27
111	Mechanically Coupled Reaction-Diffusion Model to Predict Glioma Growth: Methodological Details. Methods in Molecular Biology, 2018, 1711, 225-241.	0.4	27
112	Co-registration of multi-modality imaging allows for comprehensive analysis of tumor-induced bone disease. Bone, 2014, 61, 208-216.	1.4	26
113	A multi-state model of chemoresistance to characterize phenotypic dynamics in breast cancer. Scientific Reports, 2018, 8, 12058.	1.6	26
114	Assessing the reproducibility of dynamic contrast enhanced magnetic resonance imaging in a murine model of breast cancer. Magnetic Resonance in Medicine, 2013, 69, 1721-1734.	1.9	25
115	Patient-Specific Characterization of Breast Cancer Hemodynamics Using Image-Guided Computational Fluid Dynamics. IEEE Transactions on Medical Imaging, 2020, 39, 2760-2771.	5.4	25
116	Evaluating Multisite rCBV Consistency from DSC-MRI Imaging Protocols and Postprocessing Software Across the NCI Quantitative Imaging Network Sites Using a Digital Reference Object (DRO). Tomography, 2019, 5, 110-117.	0.8	25
117	Arterial input functions determined from MR signal magnitude and phase for quantitative dynamic contrastâ€enhanced MRI in the human pelvis. Magnetic Resonance in Medicine, 2011, 66, 498-504.	1.9	24
118	Robustness of Quantitative Compressive Sensing MRI: The Effect of Random Undersampling Patterns on Derived Parameters for DCE- and DSC-MRI. IEEE Transactions on Medical Imaging, 2012, 31, 504-511.	5.4	24
119	Quantitative [18F]FMISO PET Imaging Shows Reduction of Hypoxia Following Trastuzumab in a Murine Model of HER2+ Breast Cancer. Molecular Imaging and Biology, 2017, 19, 130-137.	1.3	24
120	Translating preclinical MRI methods to clinical oncology. Journal of Magnetic Resonance Imaging, 2019, 50, 1377-1392.	1.9	24
121	A Method for Assessing the Microvasculature in a Murine Tumor Model Using Contrast-Enhanced Ultrasonography. Journal of Ultrasound in Medicine, 2008, 27, 1699-1709.	0.8	23
122	Mechanism-Based Modeling of Tumor Growth and Treatment Response Constrained by Multiparametric Imaging Data. JCO Clinical Cancer Informatics, 2019, 3, 1-10.	1.0	23
123	Tumor Microenvironment Alters Chemoresistance of Hepatocellular Carcinoma Through CYP3A4 Metabolic Activity. Frontiers in Oncology, 2021, 11, 662135.	1.3	23
124	An Approach to Breast Cancer Diagnosis via PET Imaging of Microcalcifications Using ¹⁸F-NaF. Journal of Nuclear Medicine, 2014, 55, 1138-1143.	2.8	22
125	Integrating Quantitative Assays with Biologically Based Mathematical Modeling for Predictive Oncology. IScience, 2020, 23, 101807.	1.9	22
126	Imaging for Response Assessment in Cancer Clinical Trials. Seminars in Nuclear Medicine, 2020, 50, 488-504.	2.5	22

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127	A coupled mass transport and deformation theory of multi-constituent tumor growth. Journal of the Mechanics and Physics of Solids, 2020, 139, 103936.	2.3	22
128	Multisite concordance of apparent diffusion coefficient measurements across the NCI Quantitative Imaging Network. Journal of Medical Imaging, 2017, 5, 1.	0.8	22
129	<tt>DCEMRI.jl</tt>: a fast, validated, open source toolkit for dynamic contrast enhanced MRI analysis. PeerJ, 2015, 3, e909.	0.9	22
130	Validation of an algorithm for the nonrigid registration of longitudinal breast MR images using realistic phantoms. Medical Physics, 2010, 37, 2541-2552.	1.6	21
131	Generative adversarial network enables rapid and robust fluorescence lifetime image analysis in live cells. Communications Biology, 2022, 5, 18.	2.0	21
132	Integrating mechanism-based modeling with biomedical imaging to build practical digital twins for clinical oncology. Biophysics Reviews, 2022, 3, .	1.0	21
133	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.	1.0	20
134	A diffusion-compensated model for the analysis of DCE-MRI data: theory, simulations and experimental results. Physics in Medicine and Biology, 2013, 58, 1983-1998.	1.6	20
135	Characterizing Trastuzumab-Induced Alterations in Intratumoral Heterogeneity with Quantitative Imaging and Immunohistochemistry in HER2+ Breast Cancer. Neoplasia, 2019, 21, 17-29.	2.3	20
136	The Influence of Chronic Liver Diseases on Hepatic Vasculature: A Liver-on-a-chip Review. Micromachines, 2020, 11, 487.	1.4	20
137	Distinguishing benign and malignant breast tumors: preliminary comparison of kinetic modeling approaches using multi-institutional dynamic contrast-enhanced MRI data from the International Breast MR Consortium 6883 trial. Journal of Medical Imaging, 2018, 5, 1.	0.8	19
138	Dynamic contrast-enhanced magnetic resonance imaging and diffusion-weighted magnetic resonance imaging for predicting the response of locally advanced breast cancer to neoadjuvant therapy: a meta-analysis. Journal of Medical Imaging, 2017, 5, 1.	0.8	18
139	A time-resolved experimentalâ€"mathematical model for predicting the response of glioma cells to single-dose radiation therapy. Integrative Biology (United Kingdom), 2021, 13, 167-183.	0.6	18
140	Reproducibility of Static and Dynamic 18F-FDG, 18F-FLT, and 18F-FMISO MicroPET Studies in a Murine Model of HER2+ Breast Cancer. Molecular Imaging and Biology, 2013, 15, 87-96.	1.3	17
141	Assessment of a simplified spin and gradient echo (sSAGE) approach for human brain tumor perfusion imaging. Magnetic Resonance Imaging, 2016, 34, 1248-1255.	1.0	17
142	DCEâ€•and DWâ€MRI as early imaging biomarkers of treatment response in a preclinical model of triple negative breast cancer. NMR in Biomedicine, 2017, 30, e3799.	1.6	17
143	Integrating transcriptomics and bulk time course data into a mathematical framework to describe and predict therapeutic resistance in cancer. Physical Biology, 2021, 18, 016001.	0.8	17
144	Bayesian calibration of a stochastic, multiscale agent-based model for predicting in vitro tumor growth. PLoS Computational Biology, 2021, 17, e1008845.	1.5	17

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145	Quantifying Tumor Heterogeneity via MRI Habitats to Characterize Microenvironmental Alterations in HER2+ Breast Cancer. Cancers, 2022, 14, 1837.	1.7	17
146	Evidence of multiexponential <i>T</i>₂ in rat glioblastoma. NMR in Biomedicine, 2009, 22, 609-618.	1.6	16
147	Potential of compressed sensing in quantitative MR imaging of cancer. Cancer Imaging, 2013, 13, 633-644.	1.2	16
148	Letter to Cancer Center Directors: Progress in Quantitative Imaging As a Means to Predict and/or Measure Tumor Response in Cancer Therapy Trials. Journal of Clinical Oncology, 2014, 32, 2115-2116.	0.8	16
149	Towards real-time topical detection and characterization of FDG dose infiltration prior to PET imaging. European Journal of Nuclear Medicine and Molecular Imaging, 2016, 43, 2374-2380.	3.3	16
150	Dual Src and EGFR inhibition in combination with gemcitabine in advanced pancreatic cancer: phase I results. Investigational New Drugs, 2018, 36, 442-450.	1.2	16
151	In vitro vascularized tumor platform for modeling tumorâ€vasculature interactions of inflammatory breast cancer. Biotechnology and Bioengineering, 2020, 117, 3572-3590.	1.7	16
152	Early prediction of the response of breast tumors to neoadjuvant chemotherapy using quantitative MRI and machine learning. AMIA ... Annual Symposium proceedings, 2011, 2011, 868-77.	0.2	16
153	Longitudinal, intermodality registration of quantitative breast PET and MRI data acquired before and during neoadjuvant chemotherapy: Preliminary results. Medical Physics, 2014, 41, 052302.	1.6	15
154	Measuring DNA Hybridization Kinetics in Live Cells Using a Time-Resolved 3D Single-Molecule Tracking Method. Journal of the American Chemical Society, 2019, 141, 15747-15750.	6.6	15
155	Quantitative magnetic resonance imaging and tumor forecasting of breast cancer patients in the community setting. Nature Protocols, 2021, 16, 5309-5338.	5.5	15
156	Opportunities for improving brain cancer treatment outcomes through imaging-based mathematical modeling of the delivery of radiotherapy and immunotherapy. Advanced Drug Delivery Reviews, 2022, 187, 114367.	6.6	15
157	Spatial EGFR Dynamics and Metastatic Phenotypes Modulated by Upregulated EphB2 and Src Pathways in Advanced Prostate Cancer. Cancers, 2019, 11, 1910.	1.7	14
158	Anti-HER2 induced myeloid cell alterations correspond with increasing vascular maturation in a murine model of HER2+ breast cancer. BMC Cancer, 2020, 20, 359.	1.1	14
159	Modeling of Glioma Growth With Mass Effect by Longitudinal Magnetic Resonance Imaging. IEEE Transactions on Biomedical Engineering, 2021, 68, 3713-3724.	2.5	14
160	Quantification of long-term doxorubicin response dynamics in breast cancer cell lines to direct treatment schedules. PLoS Computational Biology, 2022, 18, e1009104.	1.5	14
161	Enhancement of histological volumes through averaging and their use for the analysis of magnetic resonance images. Magnetic Resonance Imaging, 2009, 27, 401-416.	1.0	13
162	A comparison of individual and population-derived vascular input functions for quantitative DCE-MRI in rats. Magnetic Resonance Imaging, 2014, 32, 397-401.	1.0	13

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163	Towards an Image-Informed Mathematical Model of In Vivo Response to Fractionated Radiation Therapy. Cancers, 2021, 13, 1765.	1.7	13
164	Blochâ€"Siegert B1-Mapping Improves Accuracy and Precision of Longitudinal Relaxation Measurements in the Breast at 3 T. Tomography, 2016, 2, 250-259.	0.8	13
165	Modeling tumor growth and treatment response based on quantitative imaging data. Integrative Biology (United Kingdom), 2010, 2, 338.	0.6	12
166	Comparison of dynamic contrastâ€enhanced MRI and quantitative SPECT in a rat glioma model. Contrast Media and Molecular Imaging, 2012, 7, 494-500.	0.4	12
167	An algorithm for longitudinal registration of PET/CT images acquired during neoadjuvant chemotherapy in breast cancer: preliminary results. EJNMMI Research, 2012, 2, 62.	1.1	12
168	Utility of [18â€‰F]FLT-PET to Assess Treatment Response in Trastuzumab-Resistant and Trastuzumab-Sensitive HER2-Overexpressing Human Breast Cancer Xenografts. Molecular Imaging and Biology, 2015, 17, 119-128.	1.3	12
169	Math, magnets, and medicine: enabling personalized oncology. Expert Review of Precision Medicine and Drug Development, 2021, 6, 79-81.	0.4	12
170	QIN DAWG Validation of Gradient Nonlinearity Bias Correction Workflow for Quantitative Diffusion-Weighted Imaging in Multicenter Trials. Tomography, 2016, 2, 396-405.	0.8	12
171	Evaluating the Use of rCBV as a Tumor Grade and Treatment Response Classifier Across NCI Quantitative Imaging Network Sites: Part II of the DSC-MRI Digital Reference Object (DRO) Challenge. Tomography, 2020, 6, 203-208.	0.8	12
172	Modeling the Effect of Intra-Voxel Diffusion of Contrast Agent on the Quantitative Analysis of Dynamic Contrast Enhanced Magnetic Resonance Imaging. PLoS ONE, 2014, 9, e108726.	1.1	11
173	Prone Versus Supine Breast FDG-PET/CT for Assessing Locoregional Disease Distribution in Locally Advanced Breast Cancer. Academic Radiology, 2015, 22, 853-859.	1.3	11
174	An experimental-mathematical approach to predict tumor cell growth as a function of glucose availability in breast cancer cell lines. PLoS ONE, 2021, 16, e0240765.	1.1	11
175	Co-Clinical Imaging Resource Program (CIRP): Bridging the Translational Divide to Advance Precision Medicine. Tomography, 2020, 6, 273-287.	0.8	11
176	Multiâ€Site Concordance of Diffusionâ€Weighted Imaging Quantification for Assessing Prostate Cancer Aggressiveness. Journal of Magnetic Resonance Imaging, 2022, 55, 1745-1758.	1.9	11
177	Functional colonography of <i>Min</i> mice using dark lumen dynamic contrastâ€enhanced MRI. Magnetic Resonance in Medicine, 2008, 60, 718-726.	1.9	10
178	Assessing the accuracy and reproducibility of modality independent elastography in a murine model of breast cancer. Journal of Medical Imaging, 2015, 2, 036001.	0.8	10
179	Quantitative Evaluation of Temporal Regularizers in Compressed Sensing Dynamic Contrast Enhanced MRI of the Breast. International Journal of Biomedical Imaging, 2017, 2017, 1-11.	3.0	10
180	Quantitative Magnetization Transfer Imaging of the Breast at 3.0 T: Reproducibility in Healthy Volunteers. Tomography, 2016, 2, 260-266.	0.8	10

#	Article	IF	Citations
181	Coregistration of Ultrasonography and Magnetic Resonance Imaging with a Preliminary Investigation of the Spatial Colocalization of Vascular Endothelial Growth Factor Receptor 2 Expression and Tumor Perfusion in a Murine Tumor Model. Molecular Imaging, 2009, 8, 7290.2009.00018.	0.7	10
182	Factors Affecting Image Quality and Lesion Evaluability in Breast Diffusion-weighted MRI: Observations from the ECOG-ACRIN Cancer Research Group Multisite Trial (A6702). Journal of Breast Imaging, 2021, 3, 44-56.	0.5	10
183	Detection of breast cancer microcalcification using 99mTc-MDP SPECT or Osteosense 750EX FMT imaging. Nuclear Medicine and Biology, 2015, 42, 269-273.	0.3	9
184	Techniques and applications of dynamic contrast enhanced magnetic resonance imaging in cancer. , 2014, 2014, 4264-7.		8
185	Sequence design and evaluation of the reproducibility of water-selective diffusion-weighted imaging of the breast at 3â€‰T. NMR in Biomedicine, 2014, 27, 1030-1036.	1.6	8
186	Detection of microcalcifications by characteristic magnetic susceptibility effects using MR phase image crossâ€correlation analysis. Medical Physics, 2015, 42, 1436-1452.	1.6	8
187	Comparison of prone versus supine 18F-FDG-PET of locally advanced breast cancer: Phantom and preliminary clinical studies. Medical Physics, 2015, 42, 3801-3813.	1.6	8
188	The effects of intravoxel contrast agent diffusion on the analysis of DCEâ€MRI data in realistic tissue domains. Magnetic Resonance in Medicine, 2018, 80, 330-340.	1.9	8
189	An adjoint-based method for a linear mechanically-coupled tumor model: application to estimate the spatial variation of murine glioma growth based on diffusion weighted magnetic resonance imaging. Computational Mechanics, 2019, 63, 159-180.	2.2	8
190	The Quantitative Imaging Network: A Decade of Achievement. Tomography, 2019, 5, A8.	0.8	8
191	Integrating Imaging Data into Predictive Biomathematical and Biophysical Models of Cancer. , 2012, 2012, 1-12.		8
192	Leveraging Mathematical Modeling to Quantify Pharmacokinetic and Pharmacodynamic Pathways: Equivalent Dose Metric. Frontiers in Physiology, 2019, 10, 616.	1.3	7
193	Magnetization Transfer MRI of Breast Cancer in the Community Setting: Reproducibility and Preliminary Results in Neoadjuvant Therapy. Tomography, 2019, 5, 44-52.	0.8	7
194	Constrained non-rigid registration for whole body image registration: method and validation. , 2007, , .		6
195	Imaging Considerations and Interprofessional Opportunities in the Care of Breast Cancer Patients in the Neoadjuvant Setting. Seminars in Oncology Nursing, 2017, 33, 425-439.	0.7	6
196	CD4 T-cell immune stimulation of HER2â€‰+â€‰breast cancer cells alters response to trastuzumab in vitro. Cancer Cell International, 2020, 20, 544.	1.8	6
197	Patient specific, imaging-informed modeling of rhenium-186 nanoliposome delivery via convection-enhanced delivery in glioblastoma multiforme. Biomedical Physics and Engineering Express, 2021, 7, 045012.	0.6	6
198	Deep learning-based classification of breast cancer cells using transmembrane receptor dynamics. Bioinformatics, 2021, 38, 243-249.	1.8	6

#	Article	IF	Citations
199	Early DCE-MRI Changes after Longitudinal Registration May Predict Breast Cancer Response to Neoadjuvant Chemotherapy. Lecture Notes in Computer Science, 2012, , 229-235.	1.0	6
200	Coregistration of ultrasonography and magnetic resonance imaging with a preliminary investigation of the spatial colocalization of vascular endothelial growth factor receptor 2 expression and tumor perfusion in a murine tumor model. Molecular Imaging, 2009, 8, 187-98.	0.7	6
201	A consistent pre-clinical/clinical elastography approach for assessing tumor mechanical properties in therapeutic systems. , 2013, , .		5
202	Image to physical space registration of supine breast MRI for image guided breast surgery. , 2014, , .		5
203	ANGI-08. PREDICTING IN VIVO TUMOR GROWTH AND ANGIOGENESIS WITH AN MRI CALIBRATED BIOPHYSICAL MODEL. Neuro-Oncology, 2017, 19, vi23-vi23.	0.6	5
204	Variable Cell Line Pharmacokinetics Contribute to Non-Linear Treatment Response in Heterogeneous Cell Populations. Annals of Biomedical Engineering, 2018, 46, 899-911.	1.3	5
205	Longitudinal FRET Imaging of Glucose and Lactate Dynamics and Response to Therapy in Breast Cancer Cells. Molecular Imaging and Biology, 2022, 24, 144-155.	1.3	5
206	Toward uniform implementation of parametric map Digital Imaging and Communication in Medicine standard in multisite quantitative diffusion imaging studies. Journal of Medical Imaging, 2017, 5, 1.	0.8	5
207	Quantitative multiparametric MRI predicts response to neoadjuvant therapy in the community setting. Breast Cancer Research, 2021, 23, 110.	2.2	5
208	Using Dynamic Contrast-Enhanced Magnetic Resonance Imaging Data to Constrain a Positron Emission Tomography Kinetic Model: Theory and Simulations. International Journal of Biomedical Imaging, 2013, 2013, 1-9.	3.0	4
209	An in silico validation framework for quantitative DCE-MRI techniques based on a dynamic digital phantom. Medical Image Analysis, 2021, 73, 102186.	7.0	4
210	Combining multiparametric MRI with receptor information to optimize prediction of pathologic response to neoadjuvant therapy in breast cancer: preliminary results. Journal of Medical Imaging, 2017, 5, 1.	0.8	4
211	Abstract P2-16-17: Optimizing neoadjuvant regimens for individual breast cancer patients generated by a mathematical model utilizing quantitative magnetic resonance imaging data: Preliminary results. , 2020, , .		4
212	A time-resolved experimental-mathematical model for predicting the response of glioma cells to single-dose radiation therapy. Integrative Biology (United Kingdom), 2021, 13, 167-183.	0.6	4
213	Curvelets as a sparse basis for compressed sensing magnetic resonance imaging. , 2013, , .		3
214	The rate of breast fibroglandular enhancement during dynamic contrast-enhanced MRI reflects response to neoadjuvant therapy. European Journal of Radiology, 2021, 136, 109534.	1.2	3
215	Phase I trial of chemoradiation with capecitabine and vorinostat in pancreatic cancer.. Journal of Clinical Oncology, 2013, 31, 225-225.	0.8	3
216	Disposable pointâ€ofâ€care portable perfusion phantom for quantitative DCEâ€MRI. Medical Physics, 2022, 49, 271-281.	1.6	3

#	Article	IF	Citations
217	Differences Between Ipsilateral and Contralateral Early Parenchymal Enhancement Kinetics Predict Response of Breast Cancer to Neoadjuvant Therapy. Academic Radiology, 2022, 29, 1469-1479.	1.3	3
218	Has Quantitative Multimodal Imaging of Treatment Response Arrived?. Clinical Cancer Research, 2009, 15, 6473-6475.	3.2	2
219	Validation and reproducibility assessment of modality independent elastography in a pre-clinical model of breast cancer. , 2014, , .		2
220	Predicting response before initiation of neoadjuvant chemotherapy in breast cancer using new methods for the analysis of dynamic contrast enhanced MRI (DCE MRI) data. Proceedings of SPIE, 2016, , .	0.8	2
221	Digital Receptor Occupancy Assay in Quantifying On- and Off-Target Binding Affinities of Therapeutic Antibodies. ACS Sensors, 2020, 5, 296-302.	4.0	2
222	Characterizing Errors in Pharmacokinetic Parameters from Analyzing Quantitative Abbreviated DCE-MRI Data in Breast Cancer. Tomography, 2021, 7, 253-267.	0.8	2
223	Quantitative Comparison of Prone and Supine PERCIST Measurements in Breast Cancer. Tomography, 2020, 6, 170-176.	0.8	2
224	Implementation of a Semi-automated Post-processing System for Parametric MRI Mapping of Human Breast Cancer. Journal of Digital Imaging, 2009, 22, 424-436.	1.6	1
225	A mechanically coupled reaction diffusion model of breast tumor response during neoadjuvant chemotherapy. Proceedings of SPIE, 2013, , .	0.8	1
226	Imaging Biomarkers and Surrogate Endpoints in Oncology Clinical Trials. , 2014, , 29-42.		1
227	Development of a diaphragmatic motion-based elastography framework for assessment of liver stiffness. , 2015, , .		1
228	Accrual Patterns for Clinical Studies Involving Quantitative Imaging: Results of an NCI Quantitative Imaging Network (QIN) Survey. Tomography, 2016, 2, 276-282.	0.8	1
229	Integrating quantitative imaging and computational modeling to predict the spatiotemporal distribution of 186Re nanoliposomes for recurrent glioblastoma treatment. , 2019, , .		1
230	RADT-14. TOWARDS IMAGE-GUIDED MODELING OF PATIENT-SPECIFIC RHENIUM-186 NANOLIPOSOME DISTRIBUTION VIA CONVECTION-ENHANCED DELIVERY FOR GLIOBLASTOMA MULTIFORME. Neuro-Oncology, 2021, 23, vi44-vi44.	0.6	1
231	A Multi-Compartment Model of Glioma Response to Fractionated Radiation Therapy Parameterized via Time-Resolved Microscopy Data. Frontiers in Oncology, 2022, 12, 811415.	1.3	1
232	Associations Between Dynamic Contrast Enhanced Magnetic Resonance Imaging and Clinically Relevant Histopathological Features in Breast Cancer: A Multicenter Analysis. In Vivo, 2022, 36, 398-408.	0.6	1
233	Multi-modal inter-subject registration of mouse brain images. , 2006, , .		0
234	Computational modeling in quantitative cancer imaging. , 2009, , .		0

#	Article	IF	Citations
235	Nonrigid registration algorithm for longitudinal breast MR images and the preliminary analysis of breast tumor response. , 2009, , .		0
236	Preface to the special issue on quantitative imaging in cancer. Magnetic Resonance Imaging, 2012, 30, 1201-1202.	1.0	0
237	In vivo imaging to initialize a biophysical model of tumor growth: Preliminary results. , 2013, , .		0
238	Utilizing a reference material for assessing absolute tumor mechanical properties in modality independent elastography. , 2014, , .		0
239	Voxel-level reproducibility assessment of modality independent elastography in a pre-clinical murine model. , 2015, , .		0
240	Introduction to the Special Section on Clinical Applications of Multi-Scale Modeling. Annals of Biomedical Engineering, 2016, 44, 2589-2590.	1.3	0
241	Reply to Appropriate considerations of â€œruralâ€•in National Cancer Data Base analyses. Cancer, 2020, 126, 1586-1587.	2.0	0
242	Abstract P3-03-03: Quantitative multiparametric MRI predicts response to neoadjuvant therapy in the community setting. Cancer Research, 2022, 82, P3-03-03-P3-03-03.	0.4	0