

# Dalin Tang

## List of Publications by Year in descending order

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143  
papers

3,311  
citations

147801

31  
h-index

168389

53  
g-index

147  
all docs

147  
docs citations

147  
times ranked

2305  
citing authors

#	ARTICLE	IF	CITATIONS
1	Image-based biomechanical modeling for coronary atherosclerotic plaque progression and vulnerability prediction. <i>International Journal of Cardiology</i> , 2022, 352, 1-8.	1.7	6
2	Optimization of Left Ventricle Pace Maker Location Using Echo-Based Fluid-Structure Interaction Models. <i>Frontiers in Physiology</i> , 2022, 13, 843421.	2.8	1
3	Predicting Coronary Stenosis Progression Using Plaque Fatigue From IVUS-Based Thin-Slice Models: A Machine Learning Random Forest Approach. <i>Frontiers in Physiology</i> , 2022, 13, .	2.8	1
4	Prediction of the coronary plaque growth and vulnerability change by using patient-specific 3D fluid-structure interaction models based on intravascular ultrasound and optical coherence tomography follow-up data. , 2021, , 315-333.		0
5	A prediction tool for plaque progression based on patient-specific multi-physical modeling. <i>PLoS Computational Biology</i> , 2021, 17, e1008344.	3.2	6
6	Multi-patient study for coronary vulnerable plaque model comparisons: 2D/3D and fluid-structure interaction simulations. <i>Biomechanics and Modeling in Mechanobiology</i> , 2021, 20, 1383-1397.	2.8	4
7	Predicting plaque vulnerability change using intravascular ultrasound+optical coherence tomography image-based fluid-structure interaction models and machine learning methods with patient follow-up data: a feasibility study. <i>BioMedical Engineering OnLine</i> , 2021, 20, 34.	2.7	10
8	A Novel Pulmonary Valve Replacement Surgery Strategy Using Contracting Band for Patients With Repaired Tetralogy of Fallot: An MRI-Based Multipatient Modeling Study. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 638934.	4.1	4
9	Optical Coherence Tomography-Based Patient-Specific Residual Multi-Thrombus Coronary Plaque Models With Fluid-Structure Interaction for Better Treatment Decisions: A Biomechanical Modeling Case Study. <i>Journal of Biomechanical Engineering</i> , 2021, 143, .	1.3	2
10	Porcine and bovine aortic valve comparison for surgical optimization: A fluid-structure interaction modeling study. <i>International Journal of Cardiology</i> , 2021, 334, 88-95.	1.7	3
11	Using Optical Coherence Tomography and Intravascular Ultrasound Imaging to Quantify Coronary Plaque Cap Stress/Strain and Progression: A Follow-Up Study Using 3D Thin-Layer Models. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 713525.	4.1	11
12	Bioprosthetic Valve Size Selection to Optimize Aortic Valve Replacement Surgical Outcome: A Fluid-Structure Interaction Modeling Study. <i>CMES - Computer Modeling in Engineering and Sciences</i> , 2021, 127, 159-174.	1.1	0
13	Comparisons of simulation results between passive and active fluid structure interaction models for left ventricle in hypertrophic obstructive cardiomyopathy. <i>BioMedical Engineering OnLine</i> , 2021, 20, 9.	2.7	6
14	Quantifying Patient-Specific in vivo Coronary Plaque Material Properties for Accurate Stress/Strain Calculations: An IVUS-Based Multi-Patient Study. <i>Frontiers in Physiology</i> , 2021, 12, 721195.	2.8	4
15	Optical Coherence Tomography-Derived Changes in Plaque Structural Stress Over the Cardiac Cycle: A New Method for Plaque Biomechanical Assessment. <i>Frontiers in Cardiovascular Medicine</i> , 2021, 8, 715995.	2.4	8
16	Using optical coherence tomography and intravascular ultrasound imaging to quantify coronary plaque cap thickness and vulnerability: a pilot study. <i>BioMedical Engineering OnLine</i> , 2020, 19, 90.	2.7	10
17	Using intravascular ultrasound image-based fluid-structure interaction models and machine learning methods to predict human coronary plaque vulnerability change. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2020, 23, 1267-1276.	1.6	8
18	Multi-Band Surgery for Repaired Tetralogy of Fallot Patients With Reduced Right Ventricle Ejection Fraction: A Pilot Study. <i>Frontiers in Physiology</i> , 2020, 11, 198.	2.8	3

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19	Machine Learning Model Comparison for Automatic Segmentation of Intracoronary Optical Coherence Tomography and Plaque Cap Thickness Quantification. CMES - Computer Modeling in Engineering and Sciences, 2020, 123, 631-646.	1.1	8
20	Ventricle stress/strain comparisons between Tetralogy of Fallot patients and healthy using models with different zero-load diastole and systole morphologies. PLoS ONE, 2019, 14, e0220328.	2.5	4
21	Combining morphological and biomechanical factors for optimal carotid plaque progression prediction: An MRI-based follow-up study using 3D thin-layer models. International Journal of Cardiology, 2019, 293, 266-271.	1.7	8
22	Expert recommendations on the assessment of wall shear stress in human coronary arteries: existing methodologies, technical considerations, and clinical applications. European Heart Journal, 2019, 40, 3421-3433.	2.2	178
23	Preface "Computational Modeling for Cardiovascular Disease and Biological Applications. International Journal of Computational Methods, 2019, 16, 1802002.	1.3	0
24	A Multimodality Image-Based Fluid-Structure Interaction Modeling Approach for Prediction of Coronary Plaque Progression Using IVUS and Optical Coherence Tomography Data With Follow-Up. Journal of Biomechanical Engineering, 2019, 141, .	1.3	10
25	Multi-factor decision-making strategy for better coronary plaque burden increase prediction: a patient-specific 3D FSI study using IVUS follow-up data. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1269-1280.	2.8	9
26	Patient-specific in vivo right ventricle material parameter estimation for patients with tetralogy of Fallot using MRI-based models with different zero-load diastole and systole morphologies. International Journal of Cardiology, 2019, 276, 93-99.	1.7	11
27	In Vivo Intravascular Ultrasound-Based 3D Thin-Walled Model for Human Coronary Plaque Progression Study: Transforming Research to Potential Commercialization. International Journal of Computational Methods, 2019, 16, 1842011.	1.3	3
28	A Machine Learning-Based Method for Intracoronary OCT Segmentation and Vulnerable Coronary Plaque Cap Thickness Quantification. International Journal of Computational Methods, 2019, 16, 1842008.	1.3	15
29	Patient-Specific Echo-Based Left Ventricle Models for Active Contraction and Relaxation Using Different Zero-Load Diastole and Systole Geometries. International Journal of Computational Methods, 2019, 16, 1842014.	1.3	2
30	Impact of Patient-Specific In Vivo Vessel Material Properties on Carotid Atherosclerotic Plaque Stress/Strain Calculations. International Journal of Computational Methods, 2019, 16, 1842002.	1.3	2
31	Influence of Distal Stenosis on Blood Flow Through Coronary Serial Stenoses: A Numerical Study. International Journal of Computational Methods, 2019, 16, 1842003.	1.3	7
32	Computational Modeling of Human Bicuspid Pulmonary Valve Dynamic Deformation in Patients with Tetralogy of Fallot. CMES - Computer Modeling in Engineering and Sciences, 2019, 119, 227-244.	1.1	3
33	Convolution Neural Networks and Support Vector Machines for Automatic Segmentation of Intracoronary Optical Coherence Tomography. MCB Molecular and Cellular Biomechanics, 2019, 16, 153-161.	0.7	7
34	Computational Biomechanical Right Ventricle Modeling with Contracting Bands to Improve Ventricle Cardiac Function for Patient with Repaired Tetralogy of Fallot. MCB Molecular and Cellular Biomechanics, 2019, 16, 56-57.	0.7	0
35	Image-Based Modeling for Atherosclerotic Coronary Plaque Progression and Vulnerability Research. MCB Molecular and Cellular Biomechanics, 2019, 16, 27-28.	0.7	0
36	Mass Transport of LDL in Stenotic Right Coronary Arteries. MCB Molecular and Cellular Biomechanics, 2019, 16, 25-26.	0.7	0

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37	Predicting Plaque Progression Using Patient-Specific Fluid-Structure-Interaction Models Based on IVUS and OCT Images with Follow-Up. MCB Molecular and Cellular Biomechanics, 2019, 16, 75-76.	0.7	0
38	Comparisons of Patient-specific Active and Passive Models for Left Ventricle in Hypertrophic Obstructive Cardiomyopathy. MCB Molecular and Cellular Biomechanics, 2019, 16, 58-58.	0.7	1
39	Using 3D Thin-Layer Model with in Vivo Patient-Specific Vessel Material Properties to Assesse Carotid Atherosclerotic Plaque Vulnerability. MCB Molecular and Cellular Biomechanics, 2019, 16, 81-82.	0.7	0
40	Computational Modeling of Human Bicuspid Pulmonary Valve Dynamic Deformation in Patients with Tetralogy of Fallot. MCB Molecular and Cellular Biomechanics, 2019, 16, 59-59.	0.7	0
41	Patient-specific CT-based 3D passive FSI model for left ventricle in hypertrophic obstructive cardiomyopathy. Computer Methods in Biomechanics and Biomedical Engineering, 2018, 21, 255-263.	1.6	4
42	Fluid-structure interaction models based on patient-specific IVUS at baseline and follow-up for prediction of coronary plaque progression by morphological and biomechanical factors: A preliminary study. Journal of Biomechanics, 2018, 68, 43-50.	2.1	19
43	A Fast-Fractional Flow Reserve Simulation Method in A Patient with Coronary Stenosis Based on Resistance Boundary Conditions. CMES - Computer Modeling in Engineering and Sciences, 2018, 116, 163-173.	1.1	2
44	Numerical simulation study on systolic anterior motion of the mitral valve in hypertrophic obstructive cardiomyopathy. International Journal of Cardiology, 2018, 266, 167-173.	1.7	15
45	Combining IVUS and Optical Coherence Tomography for More Accurate Coronary Cap Thickness Quantification and Stress/Strain Calculations: A Patient-Specific Three-Dimensional Fluid-Structure Interaction Modeling Approach. Journal of Biomechanical Engineering, 2018, 140, .	1.3	26
46	Stress-Based Plaque Vulnerability Index and Assessment for Carotid Atherosclerotic Plaques Using Patient-Specific Vessel Material Properties. MCB Molecular and Cellular Biomechanics, 2018, 15, 189-201.	0.7	1
47	Angle of Attack between Blood Flow and Mitral Valve Leaflets in Hypertrophic Obstructive Cardiomyopathy: An In Vivo Multi-patient CT-based FSI Study. CMES - Computer Modeling in Engineering and Sciences, 2018, 116, 115-125.	1.1	1
48	Effects of Residual Stress, Axial Stretch, and Circumferential Shrinkage on Coronary Plaque Stress and Strain Calculations: A Modeling Study Using IVUS-Based Near-Idealized Geometries. Journal of Biomechanical Engineering, 2017, 139, .	1.3	8
49	Cap inflammation leads to higher plaque cap strain and lower cap stress: An MRI-PET/CT-based FSI modeling approach. Journal of Biomechanics, 2017, 50, 121-129.	2.1	28
50	Stiffness Properties of Adventitia, Media, and Full Thickness Human Atherosclerotic Carotid Arteries in the Axial and Circumferential Directions. Journal of Biomechanical Engineering, 2017, 139, .	1.3	17
51	Quantify patient-specific coronary material property and its impact on stress/strain calculations using in vivo IVUS data and 3D FSI models: a pilot study. Biomechanics and Modeling in Mechanobiology, 2017, 16, 333-344.	2.8	33
52	MRI-based patient-specific human carotid atherosclerotic vessel material property variations in patients, vessel location and long-term follow up. PLoS ONE, 2017, 12, e0180829.	2.5	9
53	Comparison of Right Ventricle Morphological and Mechanical Characteristics for Healthy and Patients with Tetralogy of Fallot: An In Vivo MRI-Based Modeling Study. MCB Molecular and Cellular Biomechanics, 2017, 14, 137-151.	0.7	4
54	Influences of Flow Parameters on Pressure Drop in a Patient Specific Right Coronary Artery with Two Stenoses. Lecture Notes in Computer Science, 2017, , 56-70.	1.3	2

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55	3D MRI-based multicomponent thin layer structure only plaque models for atherosclerotic plaques. <i>Journal of Biomechanics</i> , 2016, 49, 2726-2733.	2.1	20
56	Preface: Computational and experimental methods for biological research: cardiovascular diseases and beyond. <i>BioMedical Engineering OnLine</i> , 2016, 15, 157.	2.7	0
57	Material stiffness parameters as potential predictors of presence of left ventricle myocardial infarction: 3D echo-based computational modeling study. <i>BioMedical Engineering OnLine</i> , 2016, 15, 34.	2.7	9
58	Mechanical stress is associated with right ventricular response to pulmonary valve replacement in patients with repaired tetralogy of Fallot. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2016, 151, 687-694.e3.	0.8	27
59	Patient-Specific MRI-Based Right Ventricle Models Using Different Zero-Load Diastole and Systole Geometries for Better Cardiac Stress and Strain Calculations and Pulmonary Valve Replacement Surgical Outcome Predictions. <i>PLoS ONE</i> , 2016, 11, e0162986.	2.5	23
60	Modeling Active Contraction and Relaxation of Left Ventricle Using Different Zero-load Diastole and Systole Geometries for Better Material Parameter Estimation and Stress/Strain Calculations. <i>MCB Molecular and Cellular Biomechanics</i> , 2016, 13, 33-55.	0.7	2
61	FSI Modeling Approach to Develop Right Ventricle Pulmonary Valve Replacement Surgical Procedures with a Contracting Actuator and Improve Ventricle Ejection Fraction. <i>Procedia Engineering</i> , 2015, 126, 441-445.	1.2	1
62	Using 3D Echo-based Modeling to Quantify in Vivo Ventricle Material Properties: A Multi-patient Study. <i>Procedia Engineering</i> , 2015, 126, 446-450.	1.2	2
63	IVUS-based Fluid-structure Interaction Models for Novel Plaque Vulnerability Indices: A Study in Patients with Coronary Artery Disease. <i>Procedia Engineering</i> , 2015, 126, 436-440.	1.2	1
64	Using 2D in Vivo Ivus-based Models for Human Coronary Plaque Progression Analysis and Comparison with 3d Fsi Models. <i>Procedia Engineering</i> , 2015, 126, 451-455.	1.2	4
65	Infarcted Left Ventricles Have Stiffer Material Properties and Lower Stiffness Variation: Three-Dimensional Echo-Based Modeling to Quantify In Vivo Ventricle Material Properties. <i>Journal of Biomechanical Engineering</i> , 2015, 137, 081005.	1.3	11
66	IVUS-Based FSI Models for Human Coronary Plaque Progression Study: Components, Correlation and Predictive Analysis. <i>Annals of Biomedical Engineering</i> , 2015, 43, 107-121.	2.5	18
67	Cardiovascular diseases and vulnerable plaques: data, modeling, predictions and clinical applications. <i>BioMedical Engineering OnLine</i> , 2015, 14, S1.	2.7	5
68	Influence of model boundary conditions on blood flow patterns in a patient specific stenotic right coronary artery. <i>BioMedical Engineering OnLine</i> , 2015, 14, S6.	2.7	38
69	Morphological and Stress Vulnerability Indices for Human Coronary Plaques and Their Correlations with Cap Thickness and Lipid Percent: An IVUS-Based Fluid-Structure Interaction Multi-patient Study. <i>PLoS Computational Biology</i> , 2015, 11, e1004652.	3.2	28
70	Human coronary plaque wall thickness correlated positively with flow shear stress and negatively with plaque wall stress: an IVUS-based fluid-structure interaction multi-patient study. <i>BioMedical Engineering OnLine</i> , 2014, 13, 32.	2.7	21
71	Right ventricular local longitudinal curvature as a marker and predictor for pulmonary valve replacement surgery outcome: An initial study based on preoperative and postoperative cardiac magnetic resonance data from patients with repaired tetralogy of Fallot. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2014, 147, 537-538.	0.8	9
72	Higher critical plaque wall stress in patients who died of coronary artery disease compared with those who died of other causes: A 3D FSI study based on ex vivo MRI of coronary plaques. <i>Journal of Biomechanics</i> , 2014, 47, 432-437.	2.1	14

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73	Image-based modeling for better understanding and assessment of atherosclerotic plaque progression and vulnerability: Data, modeling, validation, uncertainty and predictions. <i>Journal of Biomechanics</i> , 2014, 47, 834-846.	2.1	59
74	3D Echo-Based Patient-Specific Computational Left Ventricle Models to Quantify Material Properties and Stress/Strain Differences between Ventricles with and without Infarct. <i>CMES - Computer Modeling in Engineering and Sciences</i> , 2014, 99, 491-508.	1.1	4
75	Correlations between carotid plaque progression and mechanical stresses change sign over time: a patient follow up study using MRI and 3D FSI models. <i>BioMedical Engineering OnLine</i> , 2013, 12, 105.	2.7	16
76	Using contracting band to improve right ventricle ejection fraction for patients with repaired tetralogy of Fallot: A modeling study using patient-specific CMR-based 2-layer anisotropic models of human right and left ventricles. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2013, 145, 285-293.e2.	0.8	10
77	A multiphysics modeling approach to develop right ventricle pulmonary valve replacement surgical procedures with a contracting band to improve ventricle ejection fraction. <i>Computers and Structures</i> , 2013, 122, 78-87.	4.4	13
78	3D Computational Fluid-Structure Interaction Model of Canine Heart With Different Patch Materials for Optimal Myocardium Regeneration. , 2013, , .		0
79	Image-Based Modeling and Precision Medicine: Patient-Specific Carotid and Coronary Plaque Assessment and Predictions. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 643-651.	4.2	8
80	Correction: correlations between carotid plaque progression and mechanical stresses change sign over time: a patient follow up study using MRI and 3D FSI models. <i>BioMedical Engineering OnLine</i> , 2013, 12, 126.	2.7	0
81	Sudden Death in Coronary Artery Disease are Associated With High 3D Critical Plaque Wall Stress: A 3D Multi-Patient FSI Study Based on Ex Vivo MRI of Coronary Plaques. , 2013, , .		0
82	Quantifying Effect of Intraplaque Hemorrhage on Critical Plaque Wall Stress in Human Atherosclerotic Plaques Using Three-Dimensional Fluid-Structure Interaction Models. <i>Journal of Biomechanical Engineering</i> , 2012, 134, 121004.	1.3	24
83	Using In Vivo Cine and 3D Multi-Contrast MRI to Determine Human Atherosclerotic Carotid Artery Material Properties and Circumferential Shrinkage Rate and Their Impact on Stress/Strain Predictions. <i>Journal of Biomechanical Engineering</i> , 2012, 134, 011008.	1.3	27
84	Characterization of distensibility, plaque burden, and composition of the atherosclerotic carotid artery using magnetic resonance imaging. <i>Medical Physics</i> , 2012, 39, 6247-6253.	3.0	19
85	Planar biaxial characterization of diseased human coronary and carotid arteries for computational modeling. <i>Journal of Biomechanics</i> , 2012, 45, 790-798.	2.1	81
86	IVUS-based computational modeling and planar biaxial artery material properties for human coronary plaque vulnerability assessment. <i>MCB Molecular and Cellular Biomechanics</i> , 2012, 9, 77-93.	0.7	3
87	Flow and Deformation in a Multi-Component Arterial Stenosis Model. <i>Journal of Biomechanical Science and Engineering</i> , 2011, 6, 79-88.	0.3	8
88	Impact of flow rates in a cardiac cycle on correlations between advanced human carotid plaque progression and mechanical flow shear stress and plaque wall stress. <i>BioMedical Engineering OnLine</i> , 2011, 10, 61.	2.7	6
89	Multi-physics MRI-based two-layer fluid-structure interaction anisotropic models of human right and left ventricles with different patch materials: Cardiac function assessment and mechanical stress analysis. <i>Computers and Structures</i> , 2011, 89, 1059-1068.	4.4	38
90	Determination of Human Carotid Atherosclerotic Plaque Material Properties Non-Invasively Using In Vivo Cine and 3D Magnetic Resonance Imaging and Image-Based Modeling Techniques. , 2011, , .		0

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91	In Vivo Serial MRI-Based Models and Statistical Methods to Quantify Sensitivity and Specificity of Mechanical Predictors for Carotid Plaque Rupture: Location and Beyond. Journal of Biomechanical Engineering, 2011, 133, 064503.	1.3	14
92	Influence of non-Newtonian properties of blood on the wall shear stress in human atherosclerotic right coronary arteries. MCB Molecular and Cellular Biomechanics, 2011, 8, 73-90.	0.7	21
93	Patient-Specific Carotid Plaque Progression Simulation Using 3D Meshless Generalized Finite Difference Models with Fluid-Structure Interactions Based on Serial In Vivo MRI Data. CMES - Computer Modeling in Engineering and Sciences, 2011, 72, 53-77.	1.1	2
94	Predicting Human Carotid Plaque Site of Rupture Using 3D Critical Plaque Wall Stress and Flow Shear Stress: A 3D Multi-Patient FSI Study Based on In Vivo MRI of Plaques With and Without Prior Rupture. , 2010, , .		0
95	Diastolic Predominant Flow in Compliant Coronary Stenosis Model. Journal of Biomechanical Science and Engineering, 2010, 5, 303-313.	0.3	3
96	Image-based patient-specific ventricle models with fluid-structure interaction for cardiac function assessment and surgical design optimization. Progress in Pediatric Cardiology, 2010, 30, 51-62.	0.4	56
97	Advanced human carotid plaque progression correlates positively with flow shear stress using follow-up scan data: An in vivo MRI multi-patient 3D FSI study. Journal of Biomechanics, 2010, 43, 2530-2538.	2.1	64
98	Intraplaque hemorrhage is associated with higher structural stresses in human atherosclerotic plaques: an in vivo MRI-based 3d fluid-structure interaction study. BioMedical Engineering OnLine, 2010, 9, 86.	2.7	37
99	3D Critical Plaque Wall Stress Is a Better Predictor of Carotid Plaque Rupture Sites Than Flow Shear Stress: An In Vivo MRI-Based 3D FSI Study. Journal of Biomechanical Engineering, 2010, 132, 031007.	1.3	72
100	Three-Dimensional Carotid Plaque Progression Simulation Using Meshless Generalized Finite Difference Method Based on Multi-Year MRI Patient-Tracking Data. CMES - Computer Modeling in Engineering and Sciences, 2010, 57, 51-76.	1.1	6
101	Effect of Patch Mechanical Properties on Right Ventricle Function Using MRI-Based Two-Layer Anisotropic Models of Human Right and Left Ventricles. CMES - Computer Modeling in Engineering and Sciences, 2010, 56, 113-130.	1.1	4
102	Computer simulations of atherosclerotic plaque growth in coronary arteries. MCB Molecular and Cellular Biomechanics, 2010, 7, 193-202.	0.7	11
103	3D MRI-Based Anisotropic FSI Models With Cyclic Bending for Human Coronary Atherosclerotic Plaque Mechanical Analysis. Journal of Biomechanical Engineering, 2009, 131, 061010.	1.3	77
104	<i>In Vivo</i> IVUS-Based 3-D Fluid-Structure Interaction Models With Cyclic Bending and Anisotropic Vessel Properties for Human Atherosclerotic Coronary Plaque Mechanical Analysis. IEEE Transactions on Biomedical Engineering, 2009, 56, 2420-2428.	4.2	91
105	MRI-based biomechanical imaging: initial study on early plaque progression and vessel remodeling. Magnetic Resonance Imaging, 2009, 27, 1309-1318.	1.8	8
106	An experimental study on the ultimate strength of the adventitia and media of human atherosclerotic carotid arteries in circumferential and axial directions. Journal of Biomechanics, 2009, 42, 2535-2539.	2.1	99
107	Sites of Rupture in Human Atherosclerotic Carotid Plaques Are Associated With High Structural Stresses. Stroke, 2009, 40, 3258-3263.	2.0	165
108	Local critical stress correlates better than global maximum stress with plaque morphological features linked to atherosclerotic plaque vulnerability: an in vivo multi-patient study. BioMedical Engineering OnLine, 2009, 8, 15.	2.7	57

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109	3D In Vivo IVUS-Based Anisotropic FSI Models With Cyclic Bending for Human Coronary Atherosclerotic Plaque Mechanical Analysis. , 2009, , .		2
110	Patient-specific artery shrinkage and 3D zero-stress state in multi-component 3D FSI models for carotid atherosclerotic plaques based on in vivo MRI data. MCB Molecular and Cellular Biomechanics, 2009, 6, 121-34.	0.7	31
111	A negative correlation between human carotid atherosclerotic plaque progression and plaque wall stress: In vivo MRI-based 2D/3D FSI models. Journal of Biomechanics, 2008, 41, 727-736.	2.1	108
112	Patient-Specific MRI-Based 3D FSI RV/LV/Patch Models for Pulmonary Valve Replacement Surgery and Patch Optimization. Journal of Biomechanical Engineering, 2008, 130, 041010.	1.3	49
113	Influences of External Pressure on Flow and Deformation in Arterial Stenosis Model. Journal of Biomechanical Science and Engineering, 2008, 3, 75-84.	0.3	1
114	Cyclic Bending Contributes to High Stress in a Human Coronary Atherosclerotic Plaque and Rupture Risk: In Vitro Experimental Modeling and Ex Vivo MRI-Based Computational Modeling Approach. MCB Molecular and Cellular Biomechanics, 2008, 5, 259-274.	0.7	11
115	Meshless Generalized Finite Difference Method and Human Carotid Atherosclerotic Plaque Progression Simulation Using Multi-Year MRI Patient-Tracking Data. CMES - Computer Modeling in Engineering and Sciences, 2008, 28, 95-107.	1.1	8
116	In vivo MRI-based 3D FSI RV/LV models for human right ventricle and patch design for potential computer-aided surgery optimization. Computers and Structures, 2007, 85, 988-997.	4.4	34
117	In Vivo/Ex Vivo MRI-Based 3D Non-Newtonian FSI Models for Human Atherosclerotic Plaques Compared with Fluid/Wall-Only Models. CMES - Computer Modeling in Engineering and Sciences, 2007, 19, 233-246.	1.1	33
118	Two-layer passive/active anisotropic FSI models with fiber orientation: MRI-based patient-specific modeling of right ventricular response to pulmonary valve insertion surgery. MCB Molecular and Cellular Biomechanics, 2007, 4, 159-76.	0.7	8
119	Mechanical image analysis using finite element method. , 2006, , 324-340.		2
120	Quantifying Vessel Material Properties Using MRI Under Pressure Condition and MRI-Based FSI Mechanical Analysis for Human Atherosclerotic Plaques. , 2006, , 523.		1
121	Quantitative assessment of coronary artery plaque vulnerability by high-resolution magnetic resonance imaging and computational biomechanics: A pilot study ex vivo. Magnetic Resonance in Medicine, 2005, 54, 1360-1368.	3.0	28
122	Local Maximal Stress Hypothesis and Computational Plaque Vulnerability Index for Atherosclerotic Plaque Assessment. Annals of Biomedical Engineering, 2005, 33, 1789-1801.	2.5	108
123	Quantifying Effects of Plaque Structure and Material Properties on Stress Distributions in Human Atherosclerotic Plaques Using 3D FSI Models. Journal of Biomechanical Engineering, 2005, 127, 1185-1194.	1.3	114
124	Effect of a Lipid Pool on Stress/Strain Distributions in Stenotic Arteries: 3-D Fluid-Structure Interactions (FSI) Models. Journal of Biomechanical Engineering, 2004, 126, 363-370.	1.3	111
125	3D MRI-Based Multicomponent FSI Models for Atherosclerotic Plaques. Annals of Biomedical Engineering, 2004, 32, 947-960.	2.5	196
126	3D Computational Mechanical Analysis for Human Atherosclerotic Plaques Using MRI-Based Models with Fluid-Structure Interactions. Lecture Notes in Computer Science, 2004, , 328-336.	1.3	11



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127	A multi-physics growth model with fluid-structure interactions for blood flow and re-stenosis in rat vein grafts. <i>Computers and Structures</i> , 2003, 81, 1041-1058.	4.4	13
128	Effect of Stenosis Asymmetry on Blood Flow and Artery Compression: A Three-Dimensional Fluid-Structure Interaction Model. <i>Annals of Biomedical Engineering</i> , 2003, 31, 1182-1193.	2.5	111
129	Pattern formation of vascular smooth muscle cells subject to nonuniform fluid shear stress: mediation by gradient of cell density. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2003, 285, H1072-H1080.	3.2	27
130	Pattern formation of vascular smooth muscle cells subject to nonuniform fluid shear stress: role of PDGF- $\beta$ receptor and Src. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2003, 285, H1081-H1090.	3.2	22
131	Simulating cyclic artery compression using a 3D unsteady model with fluid-structure interactions. <i>Computers and Structures</i> , 2002, 80, 1651-1665.	4.4	62
132	Steady Flow and Wall Compression in Stenotic Arteries: A Three-Dimensional Thick-Wall Model With Fluid-Wall Interactions. <i>Journal of Biomechanical Engineering</i> , 2001, 123, 548-557.	1.3	101
133	Experiment-based numerical simulation of unsteady viscous flow in stenotic collapsible tubes. <i>Applied Numerical Mathematics</i> , 2001, 36, 299-320.	2.1	5
134	Generalized finite difference method for 3-D viscous flow in stenotic tubes with large wall deformation and collapse. <i>Applied Numerical Mathematics</i> , 2001, 38, 49-68.	2.1	37
135	A 3-D model with fluid-structure interactions for unsteady blood flow in stenotic arteries with cyclic wall collapse. , 2001, , 1388-1392.		0
136	A numerical simulation of viscous flows in collapsible tubes with stenoses. <i>Applied Numerical Mathematics</i> , 2000, 32, 87-101.	2.1	38
137	Wall stress and strain analysis using a three-dimensional thick-wall model with fluid-structure interactions for blood flow in carotid arteries with stenoses. <i>Computers and Structures</i> , 1999, 72, 341-356.	4.4	51
138	A 3-D thin-wall model with fluid-structure interactions for blood flow in carotid arteries with symmetric and asymmetric stenoses. <i>Computers and Structures</i> , 1999, 72, 357-377.	4.4	84
139	A Free Moving Boundary Model and Boundary Iteration Method for Unsteady Viscous Flow in Stenotic Elastic Tubes. <i>SIAM Journal of Scientific Computing</i> , 1999, 21, 1370-1386.	2.8	6
140	Steady viscous flow in constricted elastic tubes subjected to a uniform external pressure. <i>International Journal for Numerical Methods in Engineering</i> , 1998, 41, 1391-1415.	2.8	10
141	Numerical and Asymptotic Solutions for Peristaltic Motion of Nonlinear Viscous Flows with Elastic Free Boundaries. <i>SIAM Journal of Scientific Computing</i> , 1993, 14, 1300-1319.	2.8	11
142	Peristaltic Transport of a heat-conducting viscous fluid as an application of abstract differential equations and semigroup of operators. <i>Journal of Mathematical Analysis and Applications</i> , 1992, 169, 391-407.	1.0	4
143	Peristaltic transport of a heat-conducting fluid subject to Newton's cooling law at the boundary. <i>International Journal of Engineering Science</i> , 1989, 27, 809-825.	5.0	8