Martyn Nash

List of Publications by Year in Descending Order

176 papers	4,024 citations	34 h-index	59 g-index
202 ext. papers	4,611 ext. citations	4.1 avg, IF	5.37 L-index

#	Paper	IF	Citations
176	Ventricular fibrillation: combined myocardial substrate and Purkinje ablation.. *European Heart Journal*, **2022**,	9.5	1
175	Efficient Ventricular Parameter Estimation Using AI-Surrogate Models. *Frontiers in Physiology*, **2021**, 12, 732351	4.6	
174	A governing equation for rotor and wavelet number in human clinical ventricular fibrillation: Implications for sudden cardiac death. *Heart Rhythm*, **2021**,	6.7	1
173	Quantifying optical anisotropy in soft tissue membranes using Mueller matrix imaging. *Journal of Biomedical Optics*, **2021**, 26,	3.5	1
172	Passive myocardial mechanical properties: meaning, measurement, models. *Biophysical Reviews*, **2021**, 13, 587-610	3.7	2
171	The effect of camera settings on image noise and accuracy of subpixel image registration. *Machine Vision and Applications*, **2021**, 32, 1	2.8	1
170	Myocardial Laminar Organization Is Retained in Angiotensin-Converting Enzyme Inhibitor Treated SHRs. *Experimental Mechanics*, **2021**, 61, 31-40	2.6	2
169	Characterising the Soft Tissue Mechanical Properties of the Lower Limb of a Below-Knee Amputee: A Review **2021**, 99-111		
168	Sensitivity of Myocardial Stiffness Estimates to Inter-observer Variability in LV Geometric Modelling. *Lecture Notes in Computer Science*, **2021**, 287-295	0.9	1
167	Systematic Comparison of Left Ventricular Geometry Between 3D-Echocardiography and Cardiac Magnetic Resonance Imaging. *Frontiers in Cardiovascular Medicine*, **2021**, 8, 728205	5.4	1
166	In Vivo Pressure-Volume Loops and Chamber Stiffness Estimation Using Real-Time 3D Echocardiography and Left Ventricular Catheterization Application to Post-heart Transplant Patients. *Lecture Notes in Computer Science*, **2021**, 396-405	0.9	
165	Insights From Computational Modeling Into the Contribution of Mechano-Calcium Feedback on the Cardiac End-Systolic Force-Length Relationship. *Frontiers in Physiology*, **2020**, 11, 587	4.6	2
164	Calibration of a fully coupled electromechanical meshless computational model of the heart with experimental data. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 364, 112869	5.7	4
163	Deep Learning Over Reduced Intrinsic Domains for Efficient Mechanics of the Left Ventricle. *Frontiers in Physics*, **2020**, 8,	3.9	4
162	Efficient estimation of load-free left ventricular geometry and passive myocardial properties using principal component analysis. *International Journal for Numerical Methods in Biomedical Engineering*, **2020**, 36, e3313	2.6	5
161	Pipeline for 3D Reconstruction of Lung Surfaces Using Intrinsic Features Under Pressure-Controlled Ventilation **2020**, 123-134		
160	Removing Drift from Carotid Arterial Pulse Waveforms: A Comparison of Motion Correction and High-Pass Filtering **2020**, 111-119		

159	Comparison of 2D Echocardiography and Cardiac Cine MRI in the Assessment of Regional Left Ventricular Wall Thickness. *Lecture Notes in Computer Science*, **2020**, 52-62	0.9	1
158	M/M/Infinity Birth-Death Processes - A Quantitative Representational Framework to Summarize and Explain Phase Singularity and Wavelet Dynamics in Atrial Fibrillation. *Frontiers in Physiology*, **2020**, 11, 616866	4.6	7
157	Surface deformation tracking and modelling of soft materials. *Biomechanics and Modeling in Mechanobiology*, **2019**, 18, 1031-1045	3.8	2
156	An automated computational biomechanics workflow for improving breast cancer diagnosis and treatment. *Interface Focus*, **2019**, 9, 20190034	3.9	3
155	Microstructurally Motivated Constitutive Modeling of Heart Failure Mechanics. *Biophysical Journal*, **2019**, 117, 2273-2286	2.9	6
154	Quantifying Carotid Pulse Waveforms Using Subpixel Image Registration **2019**, 83-92		3
153	Spatio-temporal Organization During Ventricular Fibrillation in the Human Heart. *Annals of Biomedical Engineering*, **2018**, 46, 864-876	4.7	2
152	Estimation of transversely isotropic material properties from magnetic resonance elastography using the optimised virtual fields method. *International Journal for Numerical Methods in Biomedical Engineering*, **2018**, 34, e2979	2.6	8
151	A stabilised mixed meshfree method for incompressible media: Application to linear elasticity and Stokes flow. *Computer Methods in Applied Mechanics and Engineering*, **2018**, 329, 575-598	5.7	10
150	Suitability of recent hardware accelerators (DSPs, FPGAs, and GPUs) for computer vision and image processing algorithms. *Signal Processing: Image Communication*, **2018**, 68, 101-119	2.8	32
149	Left Ventricular Diastolic Myocardial Stiffness and End-Diastolic Myofibre Stress in Human Heart Failure Using Personalised Biomechanical Analysis. *Journal of Cardiovascular Translational Research*, **2018**, 11, 346-356	3.3	19
148	ECG signal classification for the detection of cardiac arrhythmias using a convolutional recurrent neural network. *Physiological Measurement*, **2018**, 39, 094006	2.9	64
147	Modelling Cardiac Tissue Growth and Remodelling **2018**, 283-305		
146	Subpixel phase-based image registration using Savitzky Golay differentiators in gradient-correlation. *Computer Vision and Image Understanding*, **2018**, 170, 28-39	4.3	16
145	Relative identifiability of anisotropic properties from magnetic resonance elastography. *NMR in Biomedicine*, **2018**, 31, e3848	4.4	3
144	Non-contact Quantification of Jugular Venous Pulse Waveforms from Skin Displacements. *Scientific Reports*, **2018**, 8, 17236	4.9	6
143	Increased cardiac work provides a link between systemic hypertension and heart failure. *Physiological Reports*, **2017**, 5, e13104	2.6	10
142	Multidirectional In Vivo Characterization of Skin Using Wiener Nonlinear Stochastic System Identification Techniques. *Journal of Biomechanical Engineering*, **2017**, 139,	2.1	5

141	Clinical Applications of Breast Biomechanics **2017**, 215-242		6
140	Characterizing levator-ani muscle stiffness pre- and post-childbirth in European and Polynesian women in New Zealand: a pilot study. *Acta Obstetricia Et Gynecologica Scandinavica*, **2017**, 96, 1234-1242	3.8	14
139	Registration of Prone and Supine Breast MRI for Breast Cancer Treatment Planning **2017**, 123-134		1
138	Abusive Head Trauma: Developing a Computational Adult Head Model to Predict Brain Deformations under Mild Accelerations **2017**, 147-157		1
137	Subpixel Measurement of Living Skin Deformation Using Intrinsic Features **2017**, 91-99		5
136	Three-Dimensional Quantification of Myocardial Collagen Morphology from Confocal Images. *Lecture Notes in Computer Science*, **2017**, 3-12	0.9	1
135	Modelling Cardiac Tissue Growth and Remodelling. *Journal of Elasticity*, **2017**, 129, 283-305	1.5	12
134	Probabilistic description of infant head kinematics in abusive head trauma. *Computer Methods in Biomechanics and Biomedical Engineering*, **2017**, 20, 1633-1642	2.1	1
133	Motion Correction Using Subpixel Image Registration. *Lecture Notes in Computer Science*, **2017**, 14-23	0.9	2
132	Identification of Transversely Isotropic Properties from Magnetic Resonance Elastography Using the Optimised Virtual Fields Method. *Lecture Notes in Computer Science*, **2017**, 421-431	0.9	1
131	Model-Based Interpretation of Skin Microstructural and Mechanical Measurements **2017**, 1019-1037		
130	Quantifying passive myocardial stiffness and wall stress in heart failure patients using personalized ventricular mechanics. *Journal of Cardiovascular Magnetic Resonance*, **2016**, 18, O17	6.9	2
129	Image-Based Investigation of Human in Vivo Myofibre Strain. *IEEE Transactions on Medical Imaging*, **2016**, 35, 2486-2496	11.7	14
128	Parameterisation of Multi-directional Diffusion Weighted Magnetic Resonance Images of the Heart. *Lecture Notes in Computer Science*, **2016**, 60-68	0.9	
127	Relationship Between Structure and Mechanics for Membranous Tissues **2016**, 135-173		2
126	Robust Landmark Identification for Generating Subject Specific Models for Biomechanics **2016**, 39-49		
125	Multiphysics and multiscale modelling, data-model fusion and integration of organ physiology in the clinic: ventricular cardiac mechanics. *Interface Focus*, **2016**, 6, 20150083	3.9	118
124	Using Animation to Improve Recovery from Acute Coronary Syndrome: A Randomized Trial. *Annals of Behavioral Medicine*, **2016**, 50, 108-18	4.5	63

123	Image-driven constitutive modeling of myocardial fibrosis. *International Journal for Computational Methods in Engineering Science and Mechanics*, **2016**, 17, 211-221	0.7	10
122	Modeling the second stage of labor. *Wiley Interdisciplinary Reviews: Systems Biology and Medicine*, **2016**, 8, 506-516	6.6	4
121	Effects of fetal head shape variation on the second stage of labour. *Journal of Biomechanics*, **2015**, 48, 1593-9	2.9	9
120	Head kinematics during shaking associated with abusive head trauma. *Journal of Biomechanics*, **2015**, 48, 3123-7	2.9	5
119	Verification of cardiac mechanics software: benchmark problems and solutions for testing active and passive material behaviour. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2015**, 471, 20150641	2.4	61
118	A Low-cost, hand-held stereoscopic device for measuring dynamic deformations of skin in vivo **2015** ,		3
117	Surface deformation tracking and modeling of soft materials. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 4411-4	0.9	1
116	Image-Based Predictive Modeling of Heart Mechanics. *Annual Review of Biomedical Engineering*, **2015**, 17, 351-83	12	39
115	Analysis of cardiac fibrillation using phase mapping. *Cardiac Electrophysiology Clinics*, **2015**, 7, 49-58	1.4	17
114	Field-Based Parameterisation of Cardiac Muscle Structure from Diffusion Tensors. *Lecture Notes in Computer Science*, **2015**, 146-154	0.9	1
113	Determining Anisotropic Myocardial Stiffness from Magnetic Resonance Elastography: A Simulation Study. *Lecture Notes in Computer Science*, **2015**, 346-354	0.9	4
112	Microstructural Remodelling and Mechanics of Hypertensive Heart Disease. *Lecture Notes in Computer Science*, **2015**, 382-389	0.9	3
111	Identifying Myocardial Mechanical Properties from MRI Using an Orthotropic Constitutive Model. *Lecture Notes in Computer Science*, **2015**, 135-144	0.9	
110	Automatic Landmark Detection Using Statistical Shape Modelling and Template Matching **2015**, 75-82		1
109	Model-Based Interpretation of Skin Microstructural and Mechanical Measurements **2015**, 1-20		
108	Effect of global cardiac ischemia on human ventricular fibrillation: insights from a multi-scale mechanistic model of the human heart. *PLoS Computational Biology*, **2014**, 10, e1003891	5	29
107	Constitutive relations for pressure-driven stiffening in poroelastic tissues. *Journal of Biomechanical Engineering*, **2014**, 136,	2.1	7
106	Characterizing the ex vivo mechanical properties of synthetic polypropylene surgical mesh. *Journal of the Mechanical Behavior of Biomedical Materials*, **2014**, 37, 48-55	4.1	40

105	The influence of loading conditions on equine hoof capsule deflections and stored energy assessed by finite element analysis. *Biosystems Engineering*, **2013**, 115, 283-290	4.8	5
104	Breast lesion co-localisation between X-ray and MR images using finite element modelling. *Medical Image Analysis*, **2013**, 17, 1256-64	15.4	34
103	3D surface profiling using arbitrarily positioned cameras **2013**,		2
102	FPGA implementation of 2D cross-correlation for real-time 3D tracking of deformable surfaces **2013**,		7
101	Model-based identification of motion sensor placement for tracking retraction and elongation of the tongue. *Biomechanics and Modeling in Mechanobiology*, **2013**, 12, 383-99	3.8	19
100	Computational and experimental characterization of skin mechanics: identifying current challenges and future directions. *Wiley Interdisciplinary Reviews: Systems Biology and Medicine*, **2013**, 5, 539-56	6.6	52
99	Automated Personalised Human Left Ventricular FE Models to Investigate Heart Failure Mechanics. *Lecture Notes in Computer Science*, **2013**, 307-316	0.9	4
98	Changes in In Vivo Myocardial Tissue Properties Due to Heart Failure. *Lecture Notes in Computer Science*, **2013**, 216-223	0.9	8
97	Estimation of In Vivo Myocardial Fibre Strain Using an Architectural Atlas of the Human Heart. *Lecture Notes in Computer Science*, **2013**, 208-215	0.9	2
96	Identification of Tongue Muscle Fibre Group Contraction from MR Images **2013**, 185-196		1
95	The influence of tissue hydration on equine hoof capsule deformation and energy storage assessed using finite element methods. *Biosystems Engineering*, **2012**, 111, 175-185	4.8	4
94	Insight from modelling can address controversial observations. *Equine Veterinary Journal*, **2012**, 44, 499-500	2.4	0
93	Detailed hoof morphometry is sparsely documented. *Equine Veterinary Journal*, **2012**, 44, 500-500	2.4	0
92	Comparison of the Gibbs and Suga formulations of cardiac energetics: the demise of "isoefficiency". *Journal of Applied Physiology*, **2012**, 113, 996-1003	3.7	13
91	Relating components of pressure-volume area in Suga's formulation of cardiac energetics to components of the stress-time integral. *Journal of Applied Physiology*, **2012**, 113, 988-95	3.7	7
90	Myocardial twitch duration and the dependence of oxygen consumption on pressure-volume area: experiments and modelling. *Journal of Physiology*, **2012**, 590, 4603-22	3.9	9
89	**2012**,		7
88	Modelling Prone to Supine Breast Deformation Under Gravity Loading Using Heterogeneous Finite Element Models **2012**, 29-38		8

87	Myocardial Contractility and Regional Work throughout the Cardiac Cycle Using FEM and MRI. *Lecture Notes in Computer Science*, **2012**, 149-159	0.9	10
86	The Inverse Problem of Electrocardiography **2012**, 299-344		
85	Effects of Levator Ani Muscle Morphology on the Mechanics of Vaginal Childbirth **2012**, 63-75		1
84	Mapping Breast Cancer Between Clinical X-Ray and MR Images **2011**, 81-90		5
83	The effect of hoof angle variations on dorsal lamellar load in the equine hoof. *Equine Veterinary Journal*, **2011**, 43, 536-42	2.4	12
82	Lymphatic drainage and tumour prevalence in the breast: a statistical analysis of symmetry, gender and node field independence. *Journal of Anatomy*, **2011**, 218, 652-9	2.9	15
81	Modelling collagen fibre orientation in porcine skin based upon confocal laser scanning microscopy. *Skin Research and Technology*, **2011**, 17, 149-59	1.9	34
80	Coupling multi-physics models to cardiac mechanics. *Progress in Biophysics and Molecular Biology*, **2011**, 104, 77-88	4.7	130
79	Experiment-model interaction for analysis of epicardial activation during human ventricular fibrillation with global myocardial ischaemia. *Progress in Biophysics and Molecular Biology*, **2011**, 107, 101-11	4.7	13
78	OpenCMISS: a multi-physics & multi-scale computational infrastructure for the VPH/Physiome project. *Progress in Biophysics and Molecular Biology*, **2011**, 107, 32-47	4.7	100
77	Predicting lymphatic drainage patterns and primary tumour location in patients with breast cancer. *Breast Cancer Research and Treatment*, **2011**, 130, 699-705	4.4	25
76	Anisotropic effects of the levator ani muscle during childbirth. *Biomechanics and Modeling in Mechanobiology*, **2011**, 10, 485-94	3.8	26
75	Estimating material parameters of a structurally based constitutive relation for skin mechanics. *Biomechanics and Modeling in Mechanobiology*, **2011**, 10, 767-78	3.8	76
74	Identification of mechanical properties of heterogeneous soft bodies using gravity loading. *International Journal for Numerical Methods in Biomedical Engineering*, **2011**, 27, 391-407	2.6	28
73	Comparison of system identification techniques in the analysis of a phantom for studying shaken-baby syndrome. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 1363-6	0.9	
72	Patient-Specific Modeling of Breast Biomechanics with Applications to Breast Cancer Detection and Treatment. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2011**, 379-412	0.5	7
71	Human ventricular fibrillation during global ischemia and reperfusion: paradoxical changes in activation rate and wavefront complexity. *Circulation: Arrhythmia and Electrophysiology*, **2011**, 4, 684-91	6.4	23
70	A discrete model to study reaction-diffusion-mechanics systems. *PLoS ONE*, **2011**, 6, e21934	3.7	21

No.	Title	IF	Cites
69	Mathematical models of cardiac structure and function: mechanistic insights from models of heart failure **2011**, 241-250		3
68	A Quantitative Description of Pelvic Floor Muscle Fibre Organisation **2011**, 119-130		5
67	Effects of nonlinear muscle elasticity on pelvic floor mechanics during vaginal childbirth. *Journal of Biomechanical Engineering*, **2010**, 132, 111010	2.1	26
66	The Inverse Problem of Electrocardiography **2010**, 299-344		32
65	Phase mapping of cardiac fibrillation. *Circulation: Arrhythmia and Electrophysiology*, **2010**, 3, 105-14	6.4	113
64	Electromechanical wavebreak in a model of the human left ventricle. *American Journal of Physiology - Heart and Circulatory Physiology*, **2010**, 299, H134-43	5.2	85
63	Interactive biventricular modeling tools for clinical cardiac image analysis. *Journal of Cardiovascular Magnetic Resonance*, **2010**, 12,	6.9	2
62	Modeling breast biomechanics for multi-modal image analysis--successes and challenges. *Wiley Interdisciplinary Reviews: Systems Biology and Medicine*, **2010**, 2, 293-304	6.6	40
61	Modeling childbirth: elucidating the mechanisms of labor. *Wiley Interdisciplinary Reviews: Systems Biology and Medicine*, **2010**, 2, 460-470	6.6	25
60	Breast Image Registration by Combining Finite Elements and Free-Form Deformations. *Lecture Notes in Computer Science*, **2010**, 736-743	0.9	23
59	Cardiac Active Contraction Parameters Estimated from Magnetic Resonance Imaging. *Lecture Notes in Computer Science*, **2010**, 194-203	0.9	8
58	Interactive Cardiac Image Analysis for Biventricular Function of the Human Heart. *Lecture Notes in Computer Science*, **2010**, 144-153	0.9	1
57	Investigating Heart Failure Using Ventricular Imaging and Modelling. *Lecture Notes in Computer Science*, **2010**, 164-173	0.9	
56	Effects of Fetal Head Motion on Pelvic Floor Mechanics **2010**, 129-137		4
55	Mapping Microcalcifications Between 2D Mammograms and 3D MRI Using a Biomechanical Model of the Breast **2010**, 17-28		6
54	Method for Validating Breast Compression Models Using Normalised Cross-Correlation **2010**, 63-71		3
53	A finite element study of invariant-based orthotropic constitutive equations in the context of myocardial material parameter estimation. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 691-9	2.1	2
52	Correlation of breast image alignment using biomechanical modelling **2009**,		1

#	Reference	IF	Cites
51	Myocardial material parameter estimation: a comparison of invariant based orthotropic constitutive equations. *Computer Methods in Biomechanics and Biomedical Engineering*, **2009**, 12, 283-95	2.1	13
50	A computational study of mother rotor VF in the human ventricles. *American Journal of Physiology - Heart and Circulatory Physiology*, **2009**, 296, H370-9	5.2	52
49	Organization of ventricular fibrillation in the human heart: experiments and models. *Experimental Physiology*, **2009**, 94, 553-62	2.4	64
48	Modelling passive diastolic mechanics with quantitative MRI of cardiac structure and function. *Medical Image Analysis*, **2009**, 13, 773-84	15.4	137
47	Modeling of the mechanical function of the human gastroesophageal junction using an anatomically realistic three-dimensional model. *Journal of Biomechanics*, **2009**, 42, 1604-9	2.9	30
46	Modeling cardiac mechano-electrical feedback using reaction-diffusion-mechanics systems. *Physica D: Nonlinear Phenomena*, **2009**, 238, 1000-1007	3.3	33
45	Supine and prone differences in regional lung density and pleural pressure gradients in the human lung with constant shape. *Journal of Applied Physiology*, **2009**, 107, 912-20	3.7	101
44	Creating individual-specific biomechanical models of the breast for medical image analysis. *Academic Radiology*, **2008**, 15, 1425-36	4.3	58
43	Modelling the pelvic floor for investigating difficulties during childbirth **2008**,		8
42	Biomechanical modelling for breast image registration **2008**,		2
41	Passive ventricular mechanics modelling using MRI of structure and function. *Lecture Notes in Computer Science*, **2008**, 11, 814-21	0.9	6
40	Effect of heterogeneous APD restitution on VF organization in a model of the human ventricles. *American Journal of Physiology - Heart and Circulatory Physiology*, **2008**, 294, H764-74	5.2	58
39	A biomechanical model of mammographic compressions. *Biomechanics and Modeling in Mechanobiology*, **2008**, 7, 43-52	3.8	38
38	Myocardial material parameter estimation: a non-homogeneous finite element study from simple shear tests. *Biomechanics and Modeling in Mechanobiology*, **2008**, 7, 161-73	3.8	52
37	Frictional contact mechanics methods for soft materials: application to tracking breast cancers. *Journal of Biomechanics*, **2008**, 41, 69-77	2.9	20
36	The Breast Biomechanics Reference State for Multi-modal Image Analysis. *Lecture Notes in Computer Science*, **2008**, 385-392	0.9	8
35	Modelling childbirth: comparing athlete and non-athlete pelvic floor mechanics. *Lecture Notes in Computer Science*, **2008**, 11, 750-7	0.9	6
34	Modelling mammographic compression of the breast. *Lecture Notes in Computer Science*, **2008**, 11, 758-65	0.9	19

33	Drift and breakup of spiral waves in reaction-diffusion-mechanics systems. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 7922-6	11.5	82
32	Determining the finite elasticity reference state from a loaded configuration. *International Journal for Numerical Methods in Engineering*, **2007**, 72, 1434-1451	2.4	53
31	Pacemakers in a Reaction-Diffusion Mechanics System. *Journal of Statistical Physics*, **2007**, 128, 375-392	1.5	24
30	A computationally efficient optimization kernel for material parameter estimation procedures. *Journal of Biomechanical Engineering*, **2007**, 129, 279-83	2.1	12
29	Modelling the mechanical properties of human skin: towards a 3D discrete fibre model. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2007**, 2007, 6641-4		2
28	Method for quantifiying conduction velocity during ventricular fibrillation. *Physical Review E*, **2007**, 75, 011914	2.4	4
27	Towards tracking breast cancer across medical images using subject-specific biomechanical models **2007**, 10, 651-8		8
26	The SARD variety of multifractality of ventricular epicardial mapping during ischemia. *Science Bulletin*, **2006**, 51, 809-814	10.6	1
25	Multifractal ECG mapping of ventricular epicardium during regional ischemia in the pig. *IEEE Transactions on Biomedical Engineering*, **2006**, 53, 1920-5	5	1
24	Myocardial material parameter estimation-a comparative study for simple shear. *Journal of Biomechanical Engineering*, **2006**, 128, 742-50	2.1	73
23	Evidence for multiple mechanisms in human ventricular fibrillation. *Circulation*, **2006**, 114, 536-42	16.7	176
22	Computational multiscale modeling in the IUPS Physiome Project: Modeling cardiac electromechanics. *IBM Journal of Research and Development*, **2006**, 50, 617-630	2.5	29
21	A computational model of cardiac electromechanics. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 5311-4		8
20	Finite element modelling of breast biomechanics: directly calculating the reference state. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 420-3		9
19	An imaging-based computational approach to model ventilation distribution and soft-tissue deformation in the ovine lung. *Academic Radiology*, **2006**, 13, 113-20	4.3	29
18	Whole heart action potential duration restitution properties in cardiac patients: a combined clinical and modelling study. *Experimental Physiology*, **2006**, 91, 339-54	2.4	102
17	Myocardial material parameter estimation: the influences of constitutive relation and experiental protocol. *Journal of Biomechanics*, **2006**, 39, S277-S278	2.9	
16	Modelling the skin-breast tissue interface. *Journal of Biomechanics*, **2006**, 39, S638	2.9	2

List of Publications

#	Publication		
15	Spatial heterogeneity of action potential duration restitution in humans. *Heart Rhythm*, **2005**, 2, S216-S217	3.7	3
14	Self-organized pacemakers in a coupled reaction-diffusion-mechanics system. *Physical Review Letters*, **2005**, 95, 258104	7.4	80
13	An image-based computational model of ovine lung mechanics and ventilation distribution **2005**, 5746, 84		3
12	Challenges facing validation of noninvasive electrical imaging of the heart. *Annals of Noninvasive Electrocardiology*, **2005**, 10, 73-82	1.5	25
11	Finite Element Modelling of Breast Biomechanics: Finding a Reference aState. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2005**, 2005, 3268-71		2
10	Development of a three-dimensional finite element model of breast mechanics. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2004**, 2004, 5080-3		9
9	Predicting Tumour Location by Simulating Large Deformations of the Breast Using a 3D Finite Element Model and Nonlinear Elasticity. *Lecture Notes in Computer Science*, **2004**, 217-224	0.9	24
8	Electromechanical model of excitable tissue to study reentrant cardiac arrhythmias. *Progress in Biophysics and Molecular Biology*, **2004**, 85, 501-22	4.7	269
7	Imaging electrocardiographic dispersion of depolarization and repolarization during ischemia: simultaneous body surface and epicardial mapping. *Circulation*, **2003**, 107, 2257-63	16.7	35
6	An experimental model to correlate simultaneous body surface and epicardial electropotential recordings in vivo. *Chaos, Solitons and Fractals*, **2002**, 13, 1735-1742	9.3	9
5	Mathematical modelling of the heart: cell to organ. *Chaos, Solitons and Fractals*, **2002**, 13, 1613-1621	9.3	41
4	Noninvasive electrical imaging of the heart: theory and model development. *Annals of Biomedical Engineering*, **2001**, 29, 817-36	4.7	78
3	Ventricular activation during sympathetic imbalance and its computational reconstruction. *Journal of Applied Physiology*, **2001**, 90, 287-98	3.7	23
2	Computational Mechanics of the Heart **2000**, 61, 113-141		297
1	Non-invasive electrical imaging of the heart		1