

# Maxime Sermesant

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/5390148/maxime-sermesant-publications-by-citations.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

217  
papers

5,465  
citations

41  
h-index

68  
g-index

234  
ext. papers

6,480  
ext. citations

4.3  
avg, IF

5.38  
L-index

#	Paper	IF	Citations
217	Deep Learning Techniques for Automatic MRI Cardiac Multi-Structures Segmentation and Diagnosis: Is the Problem Solved?. <i>IEEE Transactions on Medical Imaging</i> , <b>2018</b> , 37, 2514-2525	11.7	457
216	Realistic simulation of the 3-D growth of brain tumors in MR images coupling diffusion with biomechanical deformation. <i>IEEE Transactions on Medical Imaging</i> , <b>2005</b> , 24, 1334-46	11.7	258
215	Inverse relationship between fractionated electrograms and atrial fibrosis in persistent atrial fibrillation: combined magnetic resonance imaging and high-density mapping. <i>Journal of the American College of Cardiology</i> , <b>2013</b> , 62, 802-12	15.1	164
214	Patient-specific electromechanical models of the heart for the prediction of pacing acute effects in CRT: a preliminary clinical validation. <i>Medical Image Analysis</i> , <b>2012</b> , 16, 201-15	15.4	162
213	An electromechanical model of the heart for image analysis and simulation. <i>IEEE Transactions on Medical Imaging</i> , <b>2006</b> , 25, 612-25	11.7	148
212	A system for real-time XMR guided cardiovascular intervention. <i>IEEE Transactions on Medical Imaging</i> , <b>2005</b> , 24, 1428-40	11.7	140
211	iLogDemons: A Demons-Based Registration Algorithm for Tracking Incompressible Elastic Biological Tissues. <i>International Journal of Computer Vision</i> , <b>2011</b> , 92, 92-111	10.6	127
210	Cardiac function estimation from MRI using a heart model and data assimilation: advances and difficulties. <i>Medical Image Analysis</i> , <b>2006</b> , 10, 642-56	15.4	119
209	Multiphysics and multiscale modelling, data-model fusion and integration of organ physiology in the clinic: ventricular cardiac mechanics. <i>Interface Focus</i> , <b>2016</b> , 6, 20150083	3.9	118
208	Benchmarking framework for myocardial tracking and deformation algorithms: an open access database. <i>Medical Image Analysis</i> , <b>2013</b> , 17, 632-48	15.4	114
207	SVF-Net: Learning Deformable Image Registration Using Shape Matching. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 266-274	0.9	109
206	A computational framework for the statistical analysis of cardiac diffusion tensors: application to a small database of canine hearts. <i>IEEE Transactions on Medical Imaging</i> , <b>2007</b> , 26, 1500-14	11.7	98
205	euHeart: personalized and integrated cardiac care using patient-specific cardiovascular modelling. <i>Interface Focus</i> , <b>2011</b> , 1, 349-64	3.9	95
204	Deformable biomechanical models: application to 4D cardiac image analysis. <i>Medical Image Analysis</i> , <b>2003</b> , 7, 475-88	15.4	93
203	Application of soft tissue modelling to image-guided surgery. <i>Medical Engineering and Physics</i> , <b>2005</b> , 27, 893-909	2.4	91
202	In vivo human cardiac fibre architecture estimation using shape-based diffusion tensor processing. <i>Medical Image Analysis</i> , <b>2013</b> , 17, 1243-55	15.4	85
201	Coupled personalization of cardiac electrophysiology models for prediction of ischaemic ventricular tachycardia. <i>Interface Focus</i> , <b>2011</b> , 1, 396-407	3.9	84

200	Regional myocardial wall thinning at multidetector computed tomography correlates to arrhythmogenic substrate in postinfarction ventricular tachycardia: assessment of structural and electrical substrate. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2013</b> , 6, 342-50	6.4	81
199	Local late gadolinium enhancement features to identify the electrophysiological substrate of post-infarction ventricular tachycardia: a machine learning approach. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2015</b> , 17,	6.9	78
198	Integration of merged delayed-enhanced magnetic resonance imaging and multidetector computed tomography for the guidance of ventricular tachycardia ablation: a pilot study. <i>Journal of Cardiovascular Electrophysiology</i> , <b>2013</b> , 24, 419-26	2.7	75
197	Image Integration to Guide Catheter Ablation in Scar-Related Ventricular Tachycardia. <i>Journal of Cardiovascular Electrophysiology</i> , <b>2016</b> , 27, 699-708	2.7	71
196	Efficient probabilistic model personalization integrating uncertainty on data and parameters: Application to eikonal-diffusion models in cardiac electrophysiology. <i>Progress in Biophysics and Molecular Biology</i> , <b>2011</b> , 107, 134-46	4.7	68
195	Anisotropic filtering for model-based segmentation of 4D cylindrical echocardiographic images. <i>Pattern Recognition Letters</i> , <b>2003</b> , 24, 815-828	4.7	66
194	Measurement of total pulmonary arterial compliance using invasive pressure monitoring and MR flow quantification during MR-guided cardiac catheterization. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2005</b> , 289, H1301-6	5.2	66
193	A Pipeline for the Generation of Realistic 3D Synthetic Echocardiographic Sequences: Methodology and Open-Access Database. <i>IEEE Transactions on Medical Imaging</i> , <b>2015</b> , 34, 1436-1451	11.7	60
192	Registration of 4D cardiac CT sequences under trajectory constraints with multichannel diffeomorphic demons. <i>IEEE Transactions on Medical Imaging</i> , <b>2010</b> , 29, 1351-68	11.7	58
191	Impact of New Technologies and Approaches for Post-Myocardial Infarction Ventricular Tachycardia Ablation During Long-Term Follow-Up. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2016</b> , 9,	6.4	57
190	A statistical model for quantification and prediction of cardiac remodelling: application to tetralogy of Fallot. <i>IEEE Transactions on Medical Imaging</i> , <b>2011</b> , 30, 1605-16	11.7	56
189	Model-based imaging of cardiac apparent conductivity and local conduction velocity for diagnosis and planning of therapy. <i>IEEE Transactions on Medical Imaging</i> , <b>2008</b> , 27, 1631-42	11.7	52
188	Simulation of cardiac pathologies using an electromechanical biventricular model and XMR interventional imaging. <i>Medical Image Analysis</i> , <b>2005</b> , 9, 467-80	15.4	51
187	Personalization of a cardiac electromechanical model using reduced order unscented Kalman filtering from regional volumes. <i>Medical Image Analysis</i> , <b>2013</b> , 17, 816-29	15.4	49
186	Detecting Clinically Meaningful Shape Clusters in Medical Image Data: Metrics Analysis for Hierarchical Clustering Applied to Healthy and Pathological Aortic Arches. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2017</b> , 64, 2373-2383	5	48
185	Biocomputing: numerical simulation of glioblastoma growth using diffusion tensor imaging. <i>Physics in Medicine and Biology</i> , <b>2008</b> , 53, 879-93	3.8	48
184	Relationship between endocardial activation sequences defined by high-density mapping to early septal contraction (septal flash) in patients with left bundle branch block undergoing cardiac resynchronization therapy. <i>Europace</i> , <b>2012</b> , 14, 99-106	3.9	45
183	Three-dimensional right-ventricular regional deformation and survival in pulmonary hypertension. <i>European Heart Journal Cardiovascular Imaging</i> , <b>2018</b> , 19, 450-458	4.1	44

182	Noninvasive Personalization of a Cardiac Electrophysiology Model From Body Surface Potential Mapping. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2017</b> , 64, 2206-2218	5	44
181	Cardiac arrhythmias: multimodal assessment integrating body surface ECG mapping into cardiac imaging. <i>Radiology</i> , <b>2014</b> , 271, 239-47	20.5	43
180	3D strain assessment in ultrasound (Straus): a synthetic comparison of five tracking methodologies. <i>IEEE Transactions on Medical Imaging</i> , <b>2013</b> , 32, 1632-46	11.7	43
179	A statistical shape modelling framework to extract 3D shape biomarkers from medical imaging data: assessing arch morphology of repaired coarctation of the aorta. <i>BMC Medical Imaging</i> , <b>2016</b> , 16, 40	2.9	41
178	Personalization of cardiac motion and contractility from images using variational data assimilation. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2012</b> , 59, 20-4	5	41
177	In vivo human 3D cardiac fibre architecture: reconstruction using curvilinear interpolation of diffusion tensor images. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 13, 418-25	0.9	41
176	A rule-based method to model myocardial fiber orientation in cardiac biventricular geometries with outflow tracts. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2019</b> , 35, e3185	2.6	41
175	Fast parameter calibration of a cardiac electromechanical model from medical images based on the unscented transform. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2013</b> , 12, 815-31	3.8	40
174	An Anisotropic Multi-front Fast Marching Method for Real-Time Simulation of Cardiac Electrophysiology <b>2007</b> , 160-169		40
173	How successful is successful? Aortic arch shape after successful aortic coarctation repair correlates with left ventricular function. <i>Journal of Thoracic and Cardiovascular Surgery</i> , <b>2017</b> , 153, 418-427	1.5	38
172	Cardiac Imaging in Patients With Ventricular Tachycardia. <i>Circulation</i> , <b>2017</b> , 136, 2491-2507	16.7	38
171	Statistical shape modeling of the left ventricle: myocardial infarct classification challenge. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2018</b> , 22, 503-515	7.2	35
170	Toward patient-specific myocardial models of the heart. <i>Heart Failure Clinics</i> , <b>2008</b> , 4, 289-301	3.3	32
169	Spatial correlation of action potential duration and diastolic dysfunction in transgenic and drug-induced LQT2 rabbits. <i>Heart Rhythm</i> , <b>2013</b> , 10, 1533-41	6.7	31
168	A recursive anisotropic fast marching approach to reaction diffusion equation: application to tumor growth modeling. <i>Information Processing in Medical Imaging</i> , <b>2007</b> , 20, 687-99		31
167	A global benchmark of algorithms for segmenting the left atrium from late gadolinium-enhanced cardiac magnetic resonance imaging. <i>Medical Image Analysis</i> , <b>2021</b> , 67, 101832	15.4	30
166	Understanding the mechanisms amenable to CRT response: from pre-operative multimodal image data to patient-specific computational models. <i>Medical and Biological Engineering and Computing</i> , <b>2013</b> , 51, 1235-50	3.1	29
165	Spatio-Temporal Tensor Decomposition of a Polyaffine Motion Model for a Better Analysis of Pathological Left Ventricular Dynamics. <i>IEEE Transactions on Medical Imaging</i> , <b>2015</b> , 34, 1562-1575	11.7	28

164	Detailed Evaluation of Five 3D Speckle Tracking Algorithms Using Synthetic Echocardiographic Recordings. <i>IEEE Transactions on Medical Imaging</i> , <b>2016</b> , 35, 1915-26	11.7	28
163	Generation of synthetic but visually realistic time series of cardiac images combining a biophysical model and clinical images. <i>IEEE Transactions on Medical Imaging</i> , <b>2013</b> , 32, 99-109	11.7	28
162	Correspondence between simple 3-D MRI-based computer models and in-vivo EP measurements in swine with chronic infarctions. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2011</b> , 58, 3483-6	5	28
161	Correlation between computer tomography-derived scar topography and critical ablation sites in postinfarction ventricular tachycardia. <i>Journal of Cardiovascular Electrophysiology</i> , <b>2018</b> , 29, 438-445	2.7	27
160	Personalization of a cardiac electrophysiology model using optical mapping and MRI for prediction of changes with pacing. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2011</b> , 58, 3339-49	5	27
159	Inter-model consistency and complementarity: learning from ex-vivo imaging and electrophysiological data towards an integrated understanding of cardiac physiology. <i>Progress in Biophysics and Molecular Biology</i> , <b>2011</b> , 107, 122-33	4.7	27
158	Preliminary specificity study of the Bestel-Clément-Sorine electromechanical model of the heart using parameter calibration from medical images. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2013</b> , 20, 259-71	4.1	26
157	Building maps of local apparent conductivity of the epicardium with a 2-D electrophysiological model of the heart. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2006</b> , 53, 1457-66	5	26
156	Infarct Localization From Myocardial Deformation: Prediction and Uncertainty Quantification by Regression From a Low-Dimensional Space. <i>IEEE Transactions on Medical Imaging</i> , <b>2016</b> , 35, 2340-2352	11.7	25
155	Fast personalized electrophysiological models from computed tomography images for ventricular tachycardia ablation planning. <i>Europace</i> , <b>2018</b> , 20, iii94-iii101	3.9	25
154	Algorithms for left atrial wall segmentation and thickness - Evaluation on an open-source CT and MRI image database. <i>Medical Image Analysis</i> , <b>2018</b> , 50, 36-53	15.4	24
153	Computational modelling of the right ventricle in repaired tetralogy of Fallot: can it provide insight into patient treatment?. <i>European Heart Journal Cardiovascular Imaging</i> , <b>2013</b> , 14, 381-6	4.1	24
152	Registration of 4D time-series of cardiac images with multichannel Diffeomorphic Demons. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 11, 972-9	0.9	24
151	Model-Based Generation of Large Databases of Cardiac Images: Synthesis of Pathological Cine MR Sequences From Real Healthy Cases. <i>IEEE Transactions on Medical Imaging</i> , <b>2018</b> , 37, 755-766	11.7	23
150	Transfer Learning From Simulations on a Reference Anatomy for ECGI in Personalized Cardiac Resynchronization Therapy. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2019</b> , 66, 343-353	5	23
149	Relationship between MDCT-imaged myocardial fat and ventricular tachycardia substrate in arrhythmogenic right ventricular cardiomyopathy. <i>Journal of the American Heart Association</i> , <b>2014</b> , 3,	6	23
148	Fusion of optical imaging and MRI for the evaluation and adjustment of macroscopic models of cardiac electrophysiology: a feasibility study. <i>Medical Image Analysis</i> , <b>2009</b> , 13, 370-80	15.4	23
147	Applications of artificial intelligence in cardiovascular imaging. <i>Nature Reviews Cardiology</i> , <b>2021</b> , 18, 600-609	6.09	23

146	Looks Do Matter! Aortic Arch Shape After Hypoplastic Left Heart Syndrome Palliation Correlates With Cavopulmonary Outcomes. <i>Annals of Thoracic Surgery</i> , <b>2017</b> , 103, 645-654	2.7	22
145	Physically-Constrained Diffeomorphic Demons for the Estimation of 3D Myocardium Strain from Cine-MRI. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 201-210	0.9	22
144	Biophysical Modeling Predicts Ventricular Tachycardia Inducibility and Circuit Morphology: A Combined Clinical Validation and Computer Modeling Approach. <i>Journal of Cardiovascular Electrophysiology</i> , <b>2016</b> , 27, 851-60	2.7	22
143	Construction of 3D MR image-based computer models of pathologic hearts, augmented with histology and optical fluorescence imaging to characterize action potential propagation. <i>Medical Image Analysis</i> , <b>2012</b> , 16, 505-23	15.4	21
142	Towards an interactive electromechanical model of the heart. <i>Interface Focus</i> , <b>2013</b> , 3, 20120091	3.9	21
141	Cardiac Motion Recovery and Boundary Conditions Estimation by Coupling an Electromechanical Model and Cine-MRI Data. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 376-385	0.9	21
140	Myocardial wall thinning predicts transmural substrate in patients with scar-related ventricular tachycardia. <i>Heart Rhythm</i> , <b>2017</b> , 14, 155-163	6.7	20
139	Group-wise construction of reduced models for understanding and characterization of pulmonary blood flows from medical images. <i>Medical Image Analysis</i> , <b>2014</b> , 18, 63-82	15.4	20
138	A Framework for the Generation of Realistic Synthetic Cardiac Ultrasound and Magnetic Resonance Imaging Sequences From the Same Virtual Patients. <i>IEEE Transactions on Medical Imaging</i> , <b>2018</b> , 37, 741-754	11.7	19
137	Are wall thickness channels defined by computed tomography predictive of isthmuses of postinfarction ventricular tachycardia?. <i>Heart Rhythm</i> , <b>2019</b> , 16, 1661-1668	6.7	18
136	Automated Quantification of Right Ventricular Fat at Contrast-enhanced Cardiac Multidetector CT in Arrhythmogenic Right Ventricular Cardiomyopathy. <i>Radiology</i> , <b>2015</b> , 275, 683-91	20.5	18
135	A statistical model of right ventricle in tetralogy of Fallot for prediction of remodelling and therapy planning. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 12, 214-21	0.9	18
134	Realistic Vendor-Specific Synthetic Ultrasound Data for Quality Assurance of 2-D Speckle Tracking Echocardiography: Simulation Pipeline and Open Access Database. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2018</b> , 65, 411-422	3.2	17
133	A multi-front eikonal model of cardiac electrophysiology for interactive simulation of radio-frequency ablation. <i>Computers and Graphics</i> , <b>2011</b> , 35, 431-440	1.8	17
132	Velocity-based cardiac contractility personalization from images using derivative-free optimization. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2015</b> , 43, 35-52	4.1	16
131	Fast myocardial motion and strain estimation in 3D cardiac ultrasound with Sparse Demons <b>2013</b> ,		16
130	Cardiac electrophysiological activation pattern estimation from images using a patient-specific database of synthetic image sequences. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2014</b> , 61, 235-45	5	15
129	Model-Based Feature Augmentation for Cardiac Ablation Target Learning From Images. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2019</b> , 66, 30-40	5	15



128	Automatically Segmenting the Left Atrium from Cardiac Images Using Successive 3D U-Nets and a Contour Loss. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 221-229	0.9	14
127	Multifidelity-CMA: a multifidelity approach for efficient personalisation of 3D cardiac electromechanical models. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2018</b> , 17, 285-300	3.8	12
126	A fast-marching approach to cardiac electrophysiology simulation for XMR interventional imaging. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 8, 607-15	0.9	12
125	Breaking the state of the heart: meshless model for cardiac mechanics. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2019</b> , 18, 1549-1561	3.8	11
124	An Incompressible Log-Domain Demons Algorithm for Tracking Heart Tissue. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 55-67	0.9	11
123	Low-dimensional representation of cardiac motion using Barycentric Subspaces: A new group-wise paradigm for estimation, analysis, and reconstruction. <i>Medical Image Analysis</i> , <b>2018</b> , 45, 1-12	15.4	10
122	Interactive training system for interventional electrocardiology procedures. <i>Medical Image Analysis</i> , <b>2017</b> , 35, 225-237	15.4	10
121	Personalised Electromechanical Model of the Heart for the Prediction of the Acute Effects of Cardiac Resynchronisation Therapy. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 239-248	0.9	10
120	In Silico Tumor Growth: Application to Glioblastomas. <i>Lecture Notes in Computer Science</i> , <b>2004</b> , 337-345	0.9	10
119	XMR guided cardiac electrophysiology study and radio frequency ablation <b>2004</b> , 5369, 10		10
118	Atlas-Based Reduced Models of Blood Flows for Fast Patient-Specific Simulations. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 95-104	0.9	10
117	Modeling and Registration for Electrophysiology Procedures Based on Three-Dimensional Imaging. <i>Current Cardiovascular Imaging Reports</i> , <b>2011</b> , 4, 116-126	0.7	9
116	Quantitative comparison of two cardiac electrophysiology models using personalisation to optical and MR data <b>2009</b> ,		9
115	Progress towards an electromechanical model of the heart for cardiac image analysis		9
114	Towards a statistical atlas of cardiac fiber structure. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 9, 297-304	0.9	9
113	Deep Learning Formulation of ECGI for Data-Driven Integration of Spatiotemporal Correlations and Imaging Information. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 20-28	0.9	9
112	Three-dimensional right ventricular shape and strain in congenital heart disease patients with right ventricular chronic volume loading. <i>European Heart Journal Cardiovascular Imaging</i> , <b>2021</b> , 22, 1174-1181	4.1	9
111	Evaluation of the use of multimodality skin markers for the registration of pre-procedure cardiac MR images and intra-procedure x-ray fluoroscopy images for image guided cardiac electrophysiology procedures <b>2008</b> ,		8

110	Automatic Multi-Atlas Segmentation of Myocardium with SVF-Net. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 170-177	0.9	8
109	Image-Based Biophysical Simulation of Intracardiac Abnormal Ventricular Electrograms. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2017</b> , 64, 1446-1454	5	7
108	Towards an identification of tumor growth parameters from time series of images <b>2007</b> , 10, 549-56		7
107	Anisotropic wave propagation and apparent conductivity estimation in a fast electrophysiological model: application to XMR interventional imaging <b>2007</b> , 10, 575-83		7
106	Regional Analysis of Left Ventricle Function Using a Cardiac-Specific Polyaffine Motion Model. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 483-490	0.9	7
105	Population-based priors in cardiac model personalisation for consistent parameter estimation in heterogeneous databases. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2019</b> , 35, e3158	2.6	7
104	ECG imaging of ventricular tachycardia: evaluation against simultaneous non-contact mapping and CMR-derived grey zone. <i>Medical and Biological Engineering and Computing</i> , <b>2017</b> , 55, 979-990	3.1	6
103	Localization of abnormal conduction pathways for tachyarrhythmia treatment using tagged MRI. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 8, 425-33	0.9	6
102	Cardiac electrophysiology model adjustment using the fusion of MR and optical imaging. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 11, 678-85	0.9	6
101	Virtual Pulmonary Valve Replacement Interventions with a Personalised Cardiac Electromechanical Model <b>2009</b> , 75-90		6
100	Simulation of the Electromechanical Activity of the Heart Using XMR Interventional Imaging. <i>Lecture Notes in Computer Science</i> , <b>2004</b> , 786-794	0.9	6
99	Coupled personalisation of electrophysiology models for simulation of induced ischemic ventricular tachycardia. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 13, 420-8	0.9	6
98	Strain-based regional nonlinear cardiac material properties estimation from medical images. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 15, 617-24	0.9	6
97	Improved myocardial motion estimation combining tissue Doppler and B-mode echocardiographic images. <i>IEEE Transactions on Medical Imaging</i> , <b>2014</b> , 33, 2098-106	11.7	5
96	Clinical applications of image fusion for electrophysiology procedures <b>2012</b> ,		5
95	Propagation of Myocardial Fibre Architecture Uncertainty on Electromechanical Model Parameter Estimation: A Case Study. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 448-456	0.9	5
94	Cardiac mechanical parameter calibration based on the unscented transform. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 15, 41-8	0.9	5
93	Spatio-temporal dimension reduction of cardiac motion for group-wise analysis and statistical testing. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 16, 501-8	0.9	5



92	Novel atlas of fiber directions built from ex-vivo diffusion tensor images of porcine hearts. <i>Computer Methods and Programs in Biomedicine</i> , <b>2020</b> , 187, 105200	6.9	5
91	Calibration of a fully coupled electromechanical meshless computational model of the heart with experimental data. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2020</b> , 364, 112869	5.7	4
90	Generation of ultra-realistic synthetic echocardiographic sequences to facilitate standardization of deformation imaging <b>2015</b> ,		4
89	Estimation of volumetric myocardial apparent conductivity from endocardial electro-anatomical mapping. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2009</b> , 2009, 2907-10	0.9	4
88	Voxel Based Adaptive Meshless Method for Cardiac Electrophysiology Simulation. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 182-190	0.9	4
87	A Parallel Implementation of Non-rigid Registration Using a Volumetric Biomechanical Model. <i>Lecture Notes in Computer Science</i> , <b>2003</b> , 398-407	0.9	4
86	Fully Automated Electrophysiological Model Personalisation Framework from CT Imaging. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 325-333	0.9	4
85	Combination of Polyaffine Transformations and Supervised Learning for the Automatic Diagnosis of LV Infarct. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 190-198	0.9	4
84	Computational and Physical Phantom Setups for the Second Cardiac Motion Analysis Challenge (cMAC2). <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 125-133	0.9	4
83	LogDemons revisited: consistent regularisation and incompressibility constraint for soft tissue tracking in medical images. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 13, 652-9	0.9	4
82	Towards Real-Time Computation of Cardiac Electrophysiology for Training Simulator. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 298-306	0.9	4
81	EP-Net 2.0: Out-of-Domain Generalisation for Deep Learning Models of Cardiac Electrophysiology. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 482-492	0.9	4
80	Preliminary Validation Using in vivo Measures of a Macroscopic Electrical Model of the Heart. <i>Lecture Notes in Computer Science</i> , <b>2003</b> , 230-243	0.9	4
79	Personalized Computational Models of the Heart for Cardiac Resynchronization Therapy <b>2010</b> , 167-182		4
78	Cardiac Motion Evolution Model for Analysis of Functional Changes Using Tensor Decomposition and Cross-Sectional Data. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2018</b> , 65, 2769-2780	5	3
77	CMR-based 3D statistical shape modelling reveals left ventricular morphological differences between healthy controls and arterial switch operation survivors. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2016</b> , 18,	6.9	3
76	Elastic registration vs. block matching for quantification of cardiac function with 3D ultrasound: Initial results of a direct comparison in silico based on a new evaluation pipeline <b>2014</b> ,		3
75	Detecting the onset of myocardial contraction for establishing inverse electro-mechanical coupling in XMR guided RF ablation		3

74	Parallel Transport of Surface Deformations from Pole Ladder to Symmetrical Extension. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 116-124	0.9	3
73	EP-Net: Learning Cardiac Electrophysiology Models for Physiology-Based Constraints in Data-Driven Predictions. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 55-63	0.9	3
72	Symmetric Algorithmic Components for Shape Analysis with Diffeomorphisms. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 759-768	0.9	3
71	Descriptive and Intuitive Population-Based Cardiac Motion Analysis via Sparsity Constrained Tensor Decomposition. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 419-426	0.9	3
70	Estimation of Purkinje Activation from ECG: An Intermittent Left Bundle Branch Block Study. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 135-142	0.9	3
69	Sparse Bayesian Non-linear Regression for Multiple Onsets Estimation in Non-invasive Cardiac Electrophysiology. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 230-238	0.9	3
68	Smoothed Particle Hydrodynamics for Electrophysiological Modeling: An Alternative to Finite Element Methods. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 333-343	0.9	3
67	Statistical Comparison of Cardiac Fibre Architectures <b>2007</b> , 413-423		3
66	Parameter Estimation of a 3D Cardiac Electrophysiology Model Including the Restitution Curve Using Optical and MR Data. <i>IFMBE Proceedings</i> , <b>2009</b> , 1716-1719	0.2	3
65	Cardiac Motion Estimation Using a ProActive Deformable Model: Evaluation and Sensitivity Analysis. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 154-163	0.9	3
64	A Multiscale Cardiac Model for Fast Personalisation and Exploitation. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 174-182	0.9	3
63	Prediction of Infarct Localization from Myocardial Deformation. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 51-59	0.9	3
62	Non-invasive Activation Times Estimation Using 3D Echocardiography. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 212-221	0.9	3
61	A Near-Incompressible Poly-affine Motion Model for Cardiac Function Analysis. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 288-297	0.9	3
60	Biophysics-based statistical learning: Application to heart and brain interactions. <i>Medical Image Analysis</i> , <b>2021</b> , 72, 102089	15.4	3
59	Automatic Multiplanar CT Reformatting from Trans-Axial into Left Ventricle Short-Axis View. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 14-22	0.9	3
58	Personalization of Electromechanical Models of the Cardiac Ventricular Function by Heterogeneous Clinical Data Assimilation 293-330		3
57	Biomechanical Model Construction from Different Modalities: Application to Cardiac Images. <i>Lecture Notes in Computer Science</i> , <b>2002</b> , 714-721	0.9	3

56	Large Scale Cardiovascular Model Personalisation for Mechanistic Analysis of Heart and Brain Interactions. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 285-293	0.9	2
55	Simultaneous non-contact mapping fused with CMR derived grey zone to explore the relationship with ventricular tachycardia substrate in ischaemic cardiomyopathy. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2013</b> , 15,	6.9	2
54	vtkINRIA3D: A VTK Extension for Spatiotemporal Data Synchronization, Visualization and Management. <i>The Insight Journal</i> , <b>2007</b> ,		2
53	Detecting and Comparing the Onset of Myocardial Activation and Regional Motion Changes in Tagged MR for XMR-Guided RF Ablation. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 348-358	0.9	2
52	Multilevel Non-parametric Groupwise Registration in Cardiac MRI: Application to Explanted Porcine Hearts. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 60-69	0.9	2
51	An Experimental Framework to Validate 3D Models of Cardiac Electrophysiology Via Optical Imaging and MRI <b>2007</b> , 100-109		2
50	Estimation of Reaction, Diffusion and Restitution Parameters for a 3D Myocardial Model Using Optical Mapping and MRI. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 270-280	0.9	2
49	Synthetic echocardiographic image sequences for cardiac inverse electro-kinematic learning. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 14, 500-7	0.9	2
48	Statistical Shape Analysis of Surfaces in Medical Images Applied to the Tetralogy of Fallot Heart <b>2013</b> , 165-191		2
47	Cardiac computational modeling of ventricular tachycardia and cardiac resynchronization therapy: a clinical perspective. <i>Minerva Cardiology and Angiology</i> , <b>2017</b> , 65, 380-397	2.4	2
46	In vivo Contact EP Data and ex vivo MR-Based Computer Models: Registration and Model-Dependent Errors. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 364-374	0.9	2
45	Interactive Training System for Interventional Electrophysiology Procedures. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 11-19	0.9	2
44	Confidence-Based Training for Clinical Data Uncertainty in Image-Based Prediction of Cardiac Ablation Targets. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 148-159	0.9	2
43	Generation of Realistic 4D Synthetic CSPAMM Tagged MR Sequences for Benchmarking Cardiac Motion Tracking Algorithms. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 108-117	0.9	1
42	Estimating Local Apparent Conductivity with a 2-D Electrophysiological Model of the Heart. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 256-266	0.9	1
41	Deep Learning Techniques for Automatic MRI Cardiac Multi-Structures Segmentation and Diagnosis: Is the Problem Solved?		1
40	Constructing an average geometry and diffusion tensor magnetic resonance field from freshly explanted porcine hearts <b>2019</b> ,		1
39	Pipeline to Build and Test Robust 3D T1 Mapping-Based Heart Models for EP Interventions: Preliminary Results. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 64-72	0.9	1

38	Novel Framework to Integrate Real-Time MR-Guided EP Data with T1 Mapping-Based Computational Heart Models. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 11-20	0.9	1
37	VT Scan: Towards an Efficient Pipeline from Computed Tomography Images to Ventricular Tachycardia Ablation. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 271-279	0.9	1
36	Prediction of Post-Ablation Outcome in Atrial Fibrillation Using Shape Parameterization and Partial Least Squares Regression. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 311-321	0.9	1
35	Characterization of Post-infarct Scars in a Porcine Model – A Combined Experimental and Theoretical Study. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 1-10	0.9	1
34	Barycentric Subspace Analysis: A New Symmetric Group-Wise Paradigm for Cardiac Motion Tracking. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 300-307	0.9	1
33	Improving Understanding of Long-Term Cardiac Functional Remodelling via Cross-Sectional Analysis of Polyaffine Motion Parameters. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 51-59	0.9	1
32	STACOM-SLAWT Challenge: Left Atrial Wall Segmentation and Thickness Measurement Using Region Growing and Marker-Controlled Geodesic Active Contour. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 211-219	0.9	1
31	Personalisation of a 3D Ventricular Electrophysiological Model, Using Endocardial and Epicardial Contact Mapping and MRI. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 14-22	0.9	1
30	EP Challenge - STACOM1: Forward Approaches to Computational Electrophysiology Using MRI-Based Models and In-Vivo CARTO Mapping in Swine Hearts. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 1-13	0.9	1
29	Evaluation of iLogDemons Algorithm for Cardiac Motion Tracking in Synthetic Ultrasound Sequence. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 178-187	0.9	1
28	Progress on Customization of Predictive MRI-Based Macroscopic Models from Experimental Data. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 152-161	0.9	1
27	Deep learning formulation of electrocardiographic imaging integrating image and signal information with data-driven regularization. <i>Europace</i> , <b>2021</b> , 23, i55-i62	3.9	1
26	Cardiac Motion Modeling With Parallel Transport And Shape Splines <b>2021</b> ,		1
25	Highly reduced model of the cardiac function for fast simulation <b>2016</b> ,		1
24	Direction-Dependent Decomposition of Three-Dimensional Right Ventricular Motion: Beware of Approximations. <i>Journal of the American Society of Echocardiography</i> , <b>2021</b> , 34, 201-203	5.8	1
23	Shape Constraints in Deep Learning for Robust 2D Echocardiography Analysis. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 22-34	0.9	1
22	Scar-Related Ventricular Arrhythmia Prediction from Imaging Using Explainable Deep Learning. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 461-470	0.9	1
21	Personal-by-Design: A 3D Electromechanical Model of the Heart Tailored for Personalisation. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 447-457	0.9	1

20	3D MRI of explanted sheep hearts with submillimeter isotropic spatial resolution: comparison between diffusion tensor and structure tensor imaging. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2021</b> , 34, 741-755	2.8	1
19	<b>2018,</b>		1
18	Right Ventricular Function Evolution With Pregnancy in Repaired Tetralogy of Fallot. <i>Canadian Journal of Cardiology</i> , <b>2018</b> , 34, 1369.e9-1369.e11	3.8	1
17	Left atrial shape is independent predictor of arrhythmia recurrence after catheter ablation for atrial fibrillation: A shape statistics study.. <i>Heart Rhythm O2</i> , <b>2021</b> , 2, 622-632	1.5	0
16	Value of 3D right ventricular function over 2D assessment in acute pulmonary embolism. <i>Echocardiography</i> , <b>2021</b> , 38, 1694-1701	1.5	0
15	A Rule-Based Method to Model Myocardial Fiber Orientation for Simulating Ventricular Outflow Tract Arrhythmias. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 344-353	0.9	0
14	89 Electromechanical interaction in patients undergoing cardiac resynchronisation therapy: comparison of intracardiac activation maps and early septal contraction in left bundle branch block. <i>Heart</i> , <b>2011</b> , 97, A52-A52	5.1	
13	Joint Data Imputation and Mechanistic Modelling for Simulating Heart-Brain Interactions in Incomplete Datasets. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 478-486	0.9	
12	Eikonal Model Personalisation Using Invasive Data to Predict Cardiac Resynchronisation Therapy Electrophysiological Response. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 364-372	0.9	
11	Towards Hyper-Reduction of Cardiac Models Using Poly-affine Transformations. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 100-108	0.9	
10	Non-invasive Pressure Estimation in Patients with Pulmonary Arterial Hypertension: Data-Driven or Model-Based?. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 147-156	0.9	
9	End-to-end Cardiac Ultrasound Simulation for a Better Understanding of Image Quality. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 167-175	0.9	
8	Evaluation of Personalised Canine Electromechanical Models. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 74-82	0.9	
7	Longitudinal Parameter Estimation in 3D Electromechanical Models: Application to Cardiovascular Changes in Digestion. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 432-440	0.9	
6	Longitudinal Analysis Using Personalised 3D Cardiac Models with Population-Based Priors: Application to Paediatric Cardiomyopathies. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 350-358	0.9	
5	Phase-Based Registration of Cardiac Tagged MR Images by Incorporating Anatomical Constraints. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 39-47	0.9	
4	A 3D MRI-Based Cardiac Computer Model to Study Arrhythmia and Its In-vivo Experimental Validation. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 195-205	0.9	
3	Le cūr numērique personnalisē. <i>Bulletin De L'Academie Nationale De Medecine</i> , <b>2011</b> , 195, 1855-1867	0.1	

- |   |   |     |
|---|---|-----|
| 2 | Velocity-Based Cardiac Contractility Personalization with Derivative-Free Optimization. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 228-235          | 0.9 |
| 1 | Estimation of Imaging Biomarker Progression in Post-infarct Patients Using Cross-sectional Data. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 108-116 | 0.9 |