Maxime Sermesant

List of Publications by Year in Descending Order

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	Left atrial shape is independent predictor of arrhythmia recurrence after catheter ablation for atrial fibrillation: A shape statistics study.. *Heart Rhythm O2*, **2021**, 2, 622-632	1.5	0
216	Value of 3D right ventricular function over 2D assessment in acute pulmonary embolism. *Echocardiography*, **2021**, 38, 1694-1701	1.5	0
215	Three-dimensional right ventricular shape and strain in congenital heart disease patients with right ventricular chronic volume loading. *European Heart Journal Cardiovascular Imaging*, **2021**, 22, 1174-1181	4.1	9
214	Applications of artificial intelligence in cardiovascular imaging. *Nature Reviews Cardiology*, **2021**, 18, 600-609	14.9	23
213	Deep learning formulation of electrocardiographic imaging integrating image and signal information with data-driven regularization. *Europace*, **2021**, 23, i55-i62	3.9	1
212	Cardiac Motion Modeling With Parallel Transport And Shape Splines **2021**,		1
211	Direction-Dependent Decomposition of Three-Dimensional Right Ventricular Motion: Beware of Approximations. *Journal of the American Society of Echocardiography*, **2021**, 34, 201-203	5.8	1
210	A global benchmark of algorithms for segmenting the left atrium from late gadolinium-enhanced cardiac magnetic resonance imaging. *Medical Image Analysis*, **2021**, 67, 101832	15.4	30
209	Estimation of Imaging Biomarkers Progression in Post-infarct Patients Using Cross-sectional Data. *Lecture Notes in Computer Science*, **2021**, 108-116	0.9	
208	Shape Constraints in Deep Learning for Robust 2D Echocardiography Analysis. *Lecture Notes in Computer Science*, **2021**, 22-34	0.9	1
207	EP-Net 2.0: Out-of-Domain Generalisation for Deep Learning Models of Cardiac Electrophysiology. *Lecture Notes in Computer Science*, **2021**, 482-492	0.9	4
206	Scar-Related Ventricular Arrhythmia Prediction from Imaging Using Explainable Deep Learning. *Lecture Notes in Computer Science*, **2021**, 461-470	0.9	1
205	Personal-by-Design: A 3D Electromechanical Model of the Heart Tailored for Personalisation. *Lecture Notes in Computer Science*, **2021**, 447-457	0.9	1
204	3D MRI of explanted sheep hearts with submillimeter isotropic spatial resolution: comparison between diffusion tensor and structure tensor imaging. *Magnetic Resonance Materials in Physics, Biology, and Medicine*, **2021**, 34, 741-755	2.8	1
203	Biophysics-based statistical learning: Application to heart and brain interactions. *Medical Image Analysis*, **2021**, 72, 102089	15.4	3
202	Automatic Multiplanar CT Reformatting from Trans-Axial into Left Ventricle Short-Axis View. *Lecture Notes in Computer Science*, **2021**, 14-22	0.9	3
201	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

200	Joint Data Imputation and Mechanistic Modelling for Simulating Heart-Brain Interactions in Incomplete Datasets. *Lecture Notes in Computer Science*, **2020**, 478-486	0.9	
199	Eikonal Model Personalisation Using Invasive Data to Predict Cardiac Resynchronisation Therapy Electrophysiological Response. *Lecture Notes in Computer Science*, **2020**, 364-372	0.9	
198	Towards Hyper-Reduction of Cardiac Models Using Poly-affine Transformations. *Lecture Notes in Computer Science*, **2020**, 100-108	0.9	
197	Non-invasive Pressure Estimation in Patients with Pulmonary Arterial Hypertension: Data-Driven or Model-Based?. *Lecture Notes in Computer Science*, **2020**, 147-156	0.9	
196	End-to-end Cardiac Ultrasound Simulation for a Better Understanding of Image Quality. *Lecture Notes in Computer Science*, **2020**, 167-175	0.9	
195	Novel atlas of fiber directions built from ex-vivo diffusion tensor images of porcine hearts. *Computer Methods and Programs in Biomedicine*, **2020**, 187, 105200	6.9	5
194	Large Scale Cardiovascular Model Personalisation for Mechanistic Analysis of Heart and Brain Interactions. *Lecture Notes in Computer Science*, **2019**, 285-293	0.9	2
193	Breaking the state of the heart: meshless model for cardiac mechanics. *Biomechanics and Modeling in Mechanobiology*, **2019**, 18, 1549-1561	3.8	11
192	Automatically Segmenting the Left Atrium from Cardiac Images Using Successive 3D U-Nets and a Contour Loss. *Lecture Notes in Computer Science*, **2019**, 221-229	0.9	14
191	Transfer Learning From Simulations on a Reference Anatomy for ECGI in Personalized Cardiac Resynchronization Therapy. *IEEE Transactions on Biomedical Engineering*, **2019**, 66, 343-353	5	23
190	Are wall thickness channels defined by computed tomography predictive of isthmuses of postinfarction ventricular tachycardia?. *Heart Rhythm*, **2019**, 16, 1661-1668	6.7	18
189	Constructing an average geometry and diffusion tensor magnetic resonance field from freshly explanted porcine hearts **2019**,		1
188	Pipeline to Build and Test Robust 3D T1 Mapping-Based Heart Models for EP Interventions: Preliminary Results. *Lecture Notes in Computer Science*, **2019**, 64-72	0.9	1
187	Deep Learning Formulation of ECGI for Data-Driven Integration of Spatiotemporal Correlations and Imaging Information. *Lecture Notes in Computer Science*, **2019**, 20-28	0.9	9
186	Fully Automated Electrophysiological Model Personalisation Framework from CT Imaging. *Lecture Notes in Computer Science*, **2019**, 325-333	0.9	4
185	EP-Net: Learning Cardiac Electrophysiology Models for Physiology-Based Constraints in Data-Driven Predictions. *Lecture Notes in Computer Science*, **2019**, 55-63	0.9	3
184	Symmetric Algorithmic Components for Shape Analysis with Diffeomorphisms. *Lecture Notes in Computer Science*, **2019**, 759-768	0.9	3
183	A rule-based method to model myocardial fiber orientation in cardiac biventricular geometries with outflow tracts. *International Journal for Numerical Methods in Biomedical Engineering*, **2019**, 35, e3185	2.6	41

182	Population-based priors in cardiac model personalisation for consistent parameter estimation in heterogeneous databases. *International Journal for Numerical Methods in Biomedical Engineering*, **2019**, 35, e3158	2.6	7
181	Model-Based Feature Augmentation for Cardiac Ablation Target Learning From Images. *IEEE Transactions on Biomedical Engineering*, **2019**, 66, 30-40	5	15
180	Multifidelity-CMA: a multifidelity approach for efficient personalisation of 3D cardiac electromechanical models. *Biomechanics and Modeling in Mechanobiology*, **2018**, 17, 285-300	3.8	12
179	Realistic Vendor-Specific Synthetic Ultrasound Data for Quality Assurance of 2-D Speckle Tracking Echocardiography: Simulation Pipeline and Open Access Database. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2018**, 65, 411-422	3.2	17
178	Correlation between computer tomography-derived scar topography and critical ablation sites in postinfarction ventricular tachycardia. *Journal of Cardiovascular Electrophysiology*, **2018**, 29, 438-445	2.7	27
177	Low-dimensional representation of cardiac motion using Barycentric Subspaces: A new group-wise paradigm for estimation, analysis, and reconstruction. *Medical Image Analysis*, **2018**, 45, 1-12	15.4	10
176	Cardiac Motion Evolution Model for Analysis of Functional Changes Using Tensor Decomposition and Cross-Sectional Data. *IEEE Transactions on Biomedical Engineering*, **2018**, 65, 2769-2780	5	3
175	Statistical shape modeling of the left ventricle: myocardial infarct classification challenge. *IEEE Journal of Biomedical and Health Informatics*, **2018**, 22, 503-515	7.2	35
174	Model-Based Generation of Large Databases of Cardiac Images: Synthesis of Pathological Cine MR Sequences From Real Healthy Cases. *IEEE Transactions on Medical Imaging*, **2018**, 37, 755-766	11.7	23
173	Three-dimensional right-ventricular regional deformation and survival in pulmonary hypertension. *European Heart Journal Cardiovascular Imaging*, **2018**, 19, 450-458	4.1	44
172	A Framework for the Generation of Realistic Synthetic Cardiac Ultrasound and Magnetic Resonance Imaging Sequences From the Same Virtual Patients. *IEEE Transactions on Medical Imaging*, **2018**, 37, 741-754	11.7	19
171	Algorithms for left atrial wall segmentation and thickness - Evaluation on an open-source CT and MRI image database. *Medical Image Analysis*, **2018**, 50, 36-53	15.4	24
170	Parallel Transport of Surface Deformations from Pole Ladder to Symmetrical Extension. *Lecture Notes in Computer Science*, **2018**, 116-124	0.9	3
169	Automatic Multi-Atlas Segmentation of Myocardium with SVF-Net. *Lecture Notes in Computer Science*, **2018**, 170-177	0.9	8
168	Multilevel Non-parametric Groupwise Registration in Cardiac MRI: Application to Explanted Porcine Hearts. *Lecture Notes in Computer Science*, **2018**, 60-69	0.9	2
167	**2018**,		1
166	Fast personalized electrophysiological models from computed tomography images for ventricular tachycardia ablation planning. *Europace*, **2018**, 20, iii94-iii101	3.9	25
165	Deep Learning Techniques for Automatic MRI Cardiac Multi-Structures Segmentation and Diagnosis: Is the Problem Solved?. *IEEE Transactions on Medical Imaging*, **2018**, 37, 2514-2525	11.7	457

164	Right Ventricular Function Evolution With Pregnancy in Repaired Tetralogy of Fallot. *Canadian Journal of Cardiology*, **2018**, 34, 1369.e9-1369.e11	3.8	1
163	Image-Based Biophysical Simulation of Intracardiac Abnormal Ventricular Electrograms. *IEEE Transactions on Biomedical Engineering*, **2017**, 64, 1446-1454	5	7
162	Myocardial wall thinning predicts transmural substrate in patients with scar-related ventricular tachycardia. *Heart Rhythm*, **2017**, 14, 155-163	6.7	20
161	Detecting Clinically Meaningful Shape Clusters in Medical Image Data: Metrics Analysis for Hierarchical Clustering Applied to Healthy and Pathological Aortic Arches. *IEEE Transactions on Biomedical Engineering*, **2017**, 64, 2373-2383	5	48
160	Noninvasive Personalization of a Cardiac Electrophysiology Model From Body Surface Potential Mapping. *IEEE Transactions on Biomedical Engineering*, **2017**, 64, 2206-2218	5	44
159	Looks Do Matter! Aortic Arch Shape After Hypoplastic Left Heart Syndrome Palliation Correlates With Cavopulmonary Outcomes. *Annals of Thoracic Surgery*, **2017**, 103, 645-654	2.7	22
158	Interactive training system for interventional electrocardiology procedures. *Medical Image Analysis*, **2017**, 35, 225-237	15.4	10
157	How successful is successful? Aortic arch shape after successful aortic coarctation repair correlates with left ventricular function. *Journal of Thoracic and Cardiovascular Surgery*, **2017**, 153, 418-427	1.5	38
156	ECG imaging of ventricular tachycardia: evaluation against simultaneous non-contact mapping and CMR-derived grey zone. *Medical and Biological Engineering and Computing*, **2017**, 55, 979-990	3.1	6
155	Cardiac Imaging in Patients With Ventricular Tachycardia. *Circulation*, **2017**, 136, 2491-2507	16.7	38
154	Estimation of Purkinje Activation from ECG: An Intermittent Left Bundle Branch Block Study. *Lecture Notes in Computer Science*, **2017**, 135-142	0.9	3
153	Novel Framework to Integrate Real-Time MR-Guided EP Data with T1 Mapping-Based Computational Heart Models. *Lecture Notes in Computer Science*, **2017**, 11-20	0.9	1
152	Sparse Bayesian Non-linear Regression for Multiple Onsets Estimation in Non-invasive Cardiac Electrophysiology. *Lecture Notes in Computer Science*, **2017**, 230-238	0.9	3
151	VT Scan: Towards an Efficient Pipeline from Computed Tomography Images to Ventricular Tachycardia Ablation. *Lecture Notes in Computer Science*, **2017**, 271-279	0.9	1
150	Prediction of Post-Ablation Outcome in Atrial Fibrillation Using Shape Parameterization and Partial Least Squares Regression. *Lecture Notes in Computer Science*, **2017**, 311-321	0.9	1
149	Smoothed Particle Hydrodynamics for Electrophysiological Modeling: An Alternative to Finite Element Methods. *Lecture Notes in Computer Science*, **2017**, 333-343	0.9	3
148	SVF-Net: Learning Deformable Image Registration Using Shape Matching. *Lecture Notes in Computer Science*, **2017**, 266-274	0.9	109
147	Longitudinal Parameter Estimation in 3D Electromechanical Models: Application to Cardiovascular Changes in Digestion. *Lecture Notes in Computer Science*, **2017**, 432-440	0.9	

146	Longitudinal Analysis Using Personalised 3D Cardiac Models with Population-Based Priors: Application to Paediatric Cardiomyopathies. *Lecture Notes in Computer Science*, **2017**, 350-358	0.9	
145	Phase-Based Registration of Cardiac Tagged MR Images by Incorporating Anatomical Constraints. *Lecture Notes in Computer Science*, **2017**, 39-47	0.9	
144	A Rule-Based Method to Model Myocardial Fiber Orientation for Simulating Ventricular Outflow Tract Arrhythmias. *Lecture Notes in Computer Science*, **2017**, 344-353	0.9	0
143	Improving Understanding of Long-Term Cardiac Functional Remodelling via Cross-Sectional Analysis of Polyaffine Motion Parameters. *Lecture Notes in Computer Science*, **2017**, 51-59	0.9	1
142	STACOM-SLAWT Challenge: Left Atrial Wall Segmentation and Thickness Measurement Using Region Growing and Marker-Controlled Geodesic Active Contour. *Lecture Notes in Computer Science* , **2017**, 211-219	0.9	1
141	Cardiac computational modeling of ventricular tachycardia and cardiac resynchronization therapy: a clinical perspective. *Minerva Cardiology and Angiology*, **2017**, 65, 380-397	2.4	2
140	Generation of Realistic 4D Synthetic CSPAMM Tagged MR Sequences for Benchmarking Cardiac Motion Tracking Algorithms. *Lecture Notes in Computer Science*, **2016**, 108-117	0.9	1
139	A statistical shape modelling framework to extract 3D shape biomarkers from medical imaging data: assessing arch morphology of repaired coarctation of the aorta. *BMC Medical Imaging*, **2016**, 16, 40	2.9	41
138	CMR-based 3D statistical shape modelling reveals left ventricular morphological differences between healthy controls and arterial switch operation survivors. *Journal of Cardiovascular Magnetic Resonance*, **2016**, 18,	6.9	3
137	Detailed Evaluation of Five 3D Speckle Tracking Algorithms Using Synthetic Echocardiographic Recordings. *IEEE Transactions on Medical Imaging*, **2016**, 35, 1915-26	11.7	28
136	Combination of Polyaffine Transformations and Supervised Learning for the Automatic Diagnosis of LV Infarct. *Lecture Notes in Computer Science*, **2016**, 190-198	0.9	4
135	Barycentric Subspace Analysis: A New Symmetric Group-Wise Paradigm for Cardiac Motion Tracking. *Lecture Notes in Computer Science*, **2016**, 300-307	0.9	1
134	A Multiscale Cardiac Model for Fast Personalisation and Exploitation. *Lecture Notes in Computer Science*, **2016**, 174-182	0.9	3
133	Prediction of Infarct Localization from Myocardial Deformation. *Lecture Notes in Computer Science*, **2016**, 51-59	0.9	3
132	Biophysical Modeling Predicts Ventricular Tachycardia Inducibility and Circuit Morphology: A Combined Clinical Validation and Computer Modeling Approach. *Journal of Cardiovascular Electrophysiology*, **2016**, 27, 851-60	2.7	22
131	Highly reduced model of the cardiac function for fast simulation **2016**,		1
130	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
129	Infarct Localization From Myocardial Deformation: Prediction and Uncertainty Quantification by Regression From a Low-Dimensional Space. *IEEE Transactions on Medical Imaging*, **2016**, 35, 2340-2352	11.7	25

128	Impact of New Technologies and Approaches for Post-Myocardial Infarction Ventricular Tachycardia Ablation During Long-Term Follow-Up. *Circulation: Arrhythmia and Electrophysiology*, **2016**, 9,	6.4	57
127	Image Integration to Guide Catheter Ablation in Scar-Related Ventricular Tachycardia. *Journal of Cardiovascular Electrophysiology*, **2016**, 27, 699-708	2.7	71
126	Spatio-Temporal Tensor Decomposition of a Polyaffine Motion Model for a Better Analysis of Pathological Left Ventricular Dynamics. *IEEE Transactions on Medical Imaging*, **2015**, 34, 1562-1575	11.7	28
125	Local late gadolinium enhancement features to identify the electrophysiological substrate of post-infarction ventricular tachycardia: a machine learning approach. *Journal of Cardiovascular Magnetic Resonance*, **2015**, 17,	6.9	78
124	Automated Quantification of Right Ventricular Fat at Contrast-enhanced Cardiac Multidetector CT in Arrhythmogenic Right Ventricular Cardiomyopathy. *Radiology*, **2015**, 275, 683-91	20.5	18
123	Generation of ultra-realistic synthetic echocardiographic sequences to facilitate standardization of deformation imaging **2015**,		4
122	Velocity-based cardiac contractility personalization from images using derivative-free optimization. *Journal of the Mechanical Behavior of Biomedical Materials*, **2015**, 43, 35-52	4.1	16
121	A Pipeline for the Generation of Realistic 3D Synthetic Echocardiographic Sequences: Methodology and Open-Access Database. *IEEE Transactions on Medical Imaging*, **2015**, 34, 1436-1451	11.7	60
120	Propagation of Myocardial Fibre Architecture Uncertainty on Electromechanical Model Parameter Estimation: A Case Study. *Lecture Notes in Computer Science*, **2015**, 448-456	0.9	5
119	Descriptive and Intuitive Population-Based Cardiac Motion Analysis via Sparsity Constrained Tensor Decomposition. *Lecture Notes in Computer Science*, **2015**, 419-426	0.9	3
118	Evaluation of Personalised Canine Electromechanical Models. *Lecture Notes in Computer Science*, **2015**, 74-82	0.9	
117	Group-wise construction of reduced models for understanding and characterization of pulmonary blood flows from medical images. *Medical Image Analysis*, **2014**, 18, 63-82	15.4	20
116	Cardiac arrythmias: multimodal assessment integrating body surface ECG mapping into cardiac imaging. *Radiology*, **2014**, 271, 239-47	20.5	43
115	Cardiac electrophysiological activation pattern estimation from images using a patient-specific database of synthetic image sequences. *IEEE Transactions on Biomedical Engineering*, **2014**, 61, 235-45	5	15
114	Improved myocardial motion estimation combining tissue Doppler and B-mode echocardiographic images. *IEEE Transactions on Medical Imaging*, **2014**, 33, 2098-106	11.7	5
113	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 **2014**,		3
112	Relationship between MDCT-imaged myocardial fat and ventricular tachycardia substrate in arrhythmogenic right ventricular cardiomyopathy. *Journal of the American Heart Association*, **2014**, 3,	6	23
111	Progress on Customization of Predictive MRI-Based Macroscopic Models from Experimental Data. *Lecture Notes in Computer Science*, **2014**, 152-161	0.9	1

110	Interactive Training System for Interventional Electrocardiology Procedures. *Lecture Notes in Computer Science*, **2014**, 11-19	0.9	2
109	Velocity-Based Cardiac Contractility Personalization with Derivative-Free Optimization. *Lecture Notes in Computer Science*, **2014**, 228-235	0.9	
108	Confidence-Based Training for Clinical Data Uncertainty in Image-Based Prediction of Cardiac Ablation Targets. *Lecture Notes in Computer Science*, **2014**, 148-159	0.9	2
107	Generation of synthetic but visually realistic time series of cardiac images combining a biophysical model and clinical images. *IEEE Transactions on Medical Imaging*, **2013**, 32, 99-109	11.7	28
106	Understanding the mechanisms amenable to CRT response: from pre-operative multimodal image data to patient-specific computational models. *Medical and Biological Engineering and Computing*, **2013**, 51, 1235-50	3.1	29
105	3D strain assessment in ultrasound (Straus): a synthetic comparison of five tracking methodologies. *IEEE Transactions on Medical Imaging*, **2013**, 32, 1632-46	11.7	43
104	Simultaneous non-contact mapping fused with CMR derived grey zone to explore the relationship with ventricular tachycardia substrate in ischaemic cardiomyopathy. *Journal of Cardiovascular Magnetic Resonance*, **2013**, 15,	6.9	2
103	Towards an interactive electromechanical model of the heart. *Interface Focus*, **2013**, 3, 20120091	3.9	21
102	Fast parameter calibration of a cardiac electromechanical model from medical images based on the unscented transform. *Biomechanics and Modeling in Mechanobiology*, **2013**, 12, 815-31	3.8	40
101	Personalization of a cardiac electromechanical model using reduced order unscented Kalman filtering from regional volumes. *Medical Image Analysis*, **2013**, 17, 816-29	15.4	49
100	Spatial correlation of action potential duration and diastolic dysfunction in transgenic and drug-induced LQT2 rabbits. *Heart Rhythm*, **2013**, 10, 1533-41	6.7	31
99	Benchmarking framework for myocardial tracking and deformation algorithms: an open access database. *Medical Image Analysis*, **2013**, 17, 632-48	15.4	114
98	In vivo human cardiac fibre architecture estimation using shape-based diffusion tensor processing. *Medical Image Analysis*, **2013**, 17, 1243-55	15.4	85
97	Inverse relationship between fractionated electrograms and atrial fibrosis in persistent atrial fibrillation: combined magnetic resonance imaging and high-density mapping. *Journal of the American College of Cardiology*, **2013**, 62, 802-12	15.1	164
96	Preliminary specificity study of the Bestel-Clément-Sorine electromechanical model of the heart using parameter calibration from medical images. *Journal of the Mechanical Behavior of Biomedical Materials*, **2013**, 20, 259-71	4.1	26
95	Computational modelling of the right ventricle in repaired tetralogy of Fallot: can it provide insight into patient treatment?. *European Heart Journal Cardiovascular Imaging*, **2013**, 14, 381-6	4.1	24
94	Regional myocardial wall thinning at multidetector computed tomography correlates to arrhythmogenic substrate in postinfarction ventricular tachycardia: assessment of structural and electrical substrate. *Circulation: Arrhythmia and Electrophysiology*, **2013**, 6, 342-50	6.4	81
93	Fast myocardial motion and strain estimation in 3D cardiac ultrasound with Sparse Demons **2013**,		16

92	Integration of merged delayed-enhanced magnetic resonance imaging and multidetector computed tomography for the guidance of ventricular tachycardia ablation: a pilot study. *Journal of Cardiovascular Electrophysiology*, **2013**, 24, 419-26	2.7	75
91	Statistical Shape Analysis of Surfaces in Medical Images Applied to the Tetralogy of Fallot Heart **2013**, 165-191		2
90	Computational and Physical Phantom Setups for the Second Cardiac Motion Analysis Challenge (cMAC2). *Lecture Notes in Computer Science*, **2013**, 125-133	0.9	4
89	Regional Analysis of Left Ventricle Function Using a Cardiac-Specific Polyaffine Motion Model. *Lecture Notes in Computer Science*, **2013**, 483-490	0.9	7
88	Spatio-temporal dimension reduction of cardiac motion for group-wise analysis and statistical testing. *Lecture Notes in Computer Science*, **2013**, 16, 501-8	0.9	5
87	Evaluation of iLogDemons Algorithm for Cardiac Motion Tracking in Synthetic Ultrasound Sequence. *Lecture Notes in Computer Science*, **2013**, 178-187	0.9	1
86	A Near-Incompressible Poly-affine Motion Model for Cardiac Function Analysis. *Lecture Notes in Computer Science*, **2013**, 288-297	0.9	3
85	Towards Real-Time Computation of Cardiac Electrophysiology for Training Simulator. *Lecture Notes in Computer Science*, **2013**, 298-306	0.9	4
84	In vivo Contact EP Data and ex vivo MR-Based Computer Models: Registration and Model-Dependent Errors. *Lecture Notes in Computer Science*, **2013**, 364-374	0.9	2
83	Patient-specific electromechanical models of the heart for the prediction of pacing acute effects in CRT: a preliminary clinical validation. *Medical Image Analysis*, **2012**, 16, 201-15	15.4	162
82	Construction of 3D MR image-based computer models of pathologic hearts, augmented with histology and optical fluorescence imaging to characterize action potential propagation. *Medical Image Analysis*, **2012**, 16, 505-23	15.4	21
81	Personalization of cardiac motion and contractility from images using variational data assimilation. *IEEE Transactions on Biomedical Engineering*, **2012**, 59, 20-4	5	41
80	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. *Europace*, **2012**, 14, 99-106	3.9	45
79	Clinical applications of image fusion for electrophysiology procedures **2012**,		5
78	An Incompressible Log-Domain Demons Algorithm for Tracking Heart Tissue. *Lecture Notes in Computer Science*, **2012**, 55-67	0.9	11
77	Strain-based regional nonlinear cardiac material properties estimation from medical images. *Lecture Notes in Computer Science*, **2012**, 15, 617-24	0.9	6
76	Cardiac mechanical parameter calibration based on the unscented transform. *Lecture Notes in Computer Science*, **2012**, 15, 41-8	0.9	5
75	Personalisation of a 3D Ventricular Electrophysiological Model, Using Endocardial and Epicardial Contact Mapping and MRI. *Lecture Notes in Computer Science*, **2012**, 14-22	0.9	1

74	EP Challenge - STACOM'11: Forward Approaches to Computational Electrophysiology Using MRI-Based Models and In-Vivo CARTO Mapping in Swine Hearts. *Lecture Notes in Computer Science*, **2012**, 1-13	0.9	1
73	Personalization of a cardiac electrophysiology model using optical mapping and MRI for prediction of changes with pacing. *IEEE Transactions on Biomedical Engineering*, **2011**, 58, 3339-49	5	27
72	Coupled personalization of cardiac electrophysiology models for prediction of ischaemic ventricular tachycardia. *Interface Focus*, **2011**, 1, 396-407	3.9	84
71	Efficient probabilistic model personalization integrating uncertainty on data and parameters: Application to eikonal-diffusion models in cardiac electrophysiology. *Progress in Biophysics and Molecular Biology*, **2011**, 107, 134-46	4.7	68
70	Inter-model consistency and complementarity: learning from ex-vivo imaging and electrophysiological data towards an integrated understanding of cardiac physiology. *Progress in Biophysics and Molecular Biology*, **2011**, 107, 122-33	4.7	27
69	A statistical model for quantification and prediction of cardiac remodelling: application to tetralogy of Fallot. *IEEE Transactions on Medical Imaging*, **2011**, 30, 1605-16	11.7	56
68	iLogDemons: A Demons-Based Registration Algorithm for Tracking Incompressible Elastic Biological Tissues. *International Journal of Computer Vision*, **2011**, 92, 92-111	10.6	127
67	Modeling and Registration for Electrophysiology Procedures Based on Three-Dimensional Imaging. *Current Cardiovascular Imaging Reports*, **2011**, 4, 116-126	0.7	9
66	Correspondence between simple 3-D MRI-based computer models and in-vivo EP measurements in swine with chronic infarctions. *IEEE Transactions on Biomedical Engineering*, **2011**, 58, 3483-6	5	28
65	A multi-front eikonal model of cardiac electrophysiology for interactive simulation of radio-frequency ablation. *Computers and Graphics*, **2011**, 35, 431-440	1.8	17
64	euHeart: personalized and integrated cardiac care using patient-specific cardiovascular modelling. *Interface Focus*, **2011**, 1, 349-64	3.9	95
63	89 Electromechanical interaction in patients undergoing cardiac resynchronisation therapy: comparison of intracardiac activation maps and early septal contraction in left bundle branch block. *Heart*, **2011**, 97, A52-A52	5.1	
62	Synthetic echocardiographic image sequences for cardiac inverse electro-kinematic learning. *Lecture Notes in Computer Science*, **2011**, 14, 500-7	0.9	2
61	A 3D MRI-Based Cardiac Computer Model to Study Arrhythmia and Its In-vivo Experimental Validation. *Lecture Notes in Computer Science*, **2011**, 195-205	0.9	
60	Le cœur numérique personnalisé. *Bulletin De L'Academie Nationale De Medecine*, **2011**, 195, 1855-1867	0.1	
59	In vivo human 3D cardiac fibre architecture: reconstruction using curvilinear interpolation of diffusion tensor images. *Lecture Notes in Computer Science*, **2010**, 13, 418-25	0.9	41
58	Registration of 4D cardiac CT sequences under trajectory constraints with multichannel diffeomorphic demons. *IEEE Transactions on Medical Imaging*, **2010**, 29, 1351-68	11.7	58
57	Coupled personalisation of electrophysiology models for simulation of induced ischemic ventricular tachycardia. *Lecture Notes in Computer Science*, **2010**, 13, 420-8	0.9	6

56	Atlas-Based Reduced Models of Blood Flows for Fast Patient-Specific Simulations. *Lecture Notes in Computer Science*, **2010**, 95-104	0.9	10
55	Cardiac Motion Estimation Using a ProActive Deformable Model: Evaluation and Sensitivity Analysis. *Lecture Notes in Computer Science*, **2010**, 154-163	0.9	3
54	Estimation of Reaction, Diffusion and Restitution Parameters for a 3D Myocardial Model Using Optical Mapping and MRI. *Lecture Notes in Computer Science*, **2010**, 270-280	0.9	2
53	LogDemons revisited: consistent regularisation and incompressibility constraint for soft tissue tracking in medical images. *Lecture Notes in Computer Science*, **2010**, 13, 652-9	0.9	4
52	Non-invasive Activation Times Estimation Using 3D Echocardiography. *Lecture Notes in Computer Science*, **2010**, 212-221	0.9	3
51	Personalized Computational Models of the Heart for Cardiac Resynchronization Therapy **2010**, 167-182		4
50	Estimation of volumetric myocardial apparent conductivity from endocardial electro-anatomical mapping. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 2907-10	0.9	4
49	Voxel Based Adaptive Meshless Method for Cardiac Electrophysiology Simulation. *Lecture Notes in Computer Science*, **2009**, 182-190	0.9	4
48	Personalised Electromechanical Model of the Heart for the Prediction of the Acute Effects of Cardiac Resynchronisation Therapy. *Lecture Notes in Computer Science*, **2009**, 239-248	0.9	10
47	Fusion of optical imaging and MRI for the evaluation and adjustment of macroscopic models of cardiac electrophysiology: a feasibility study. *Medical Image Analysis*, **2009**, 13, 370-80	15.4	23
46	Quantitative comparison of two cardiac electrophysiology models using personalisation to optical and MR data **2009**,		9
45	Virtual Pulmonary Valve Replacement Interventions with a Personalised Cardiac Electromechanical Model **2009**, 75-90		6
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