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Titolo	Functional Imaging and Modeling of the Heart [[electronic resource]] : First International Workshop, FIMH 2001, Helsinki, Finland, November 15-16, 2001, Proceedings / / edited by Toivo Katila, Isabelle E. Magnin, Patrick Clarysse, Johan Montagnat, Jukka Nenonen
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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2230
Disciplina	611/.12
Soggetti	Computer simulation Optical data processing Health informatics Artificial intelligence Cardiology Radiology Simulation and Modeling Image Processing and Computer Vision Health Informatics Artificial Intelligence Imaging / Radiology
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Speaker -- Modules in Cardiac Modeling: Mechanics, Circulation, and Depolarization Wave -- Anatomical Modeling -- Geometrical Modeling of the Heart and Its Main Vessels -- Reconstructing 3D Boundary Element Heart Models from 2D Biplane Fluoroscopy -- Introducing Spectral Estimation for Boundary Detection in Echographic Radiofrequency Images -- Geometrical Modelling of the Fibre Organization in the Human Left Ventricle -- Invited Speaker -- Challenges in Modelling Human Heart's Total Excitation -- Motion and Deformation -- Two-Dimensional Ultrasonic Strain Rate Measurement of the Human Heart in Vivo -- Deformation Field Estimation for the

Cardiac Wall Using Doppler Tissue Imaging -- A New Kinetic Modeling Scheme for the Human Left Ventricle Wall Motion with MR-Tagging Imaging -- Integrated Quantitative Analysis of Tagged Magnetic Resonance Images -- Invited Speaker -- Measurement of Ventricular Wall Motion, Epicardial Electrical Mapping, and Myocardial Fiber Angles in the Same Heart -- Functional Imaging -- A 3-D Model-Based Approach for the PET-Functional and MR-Anatomical Cardiac Imaging Data Fusion -- 3D Regularisation and Segmentation of Factor Volumes to Process PET H2 15O Myocardial Perfusion Studies -- In Vivo Assessment of Rat Hearts with and without Myocardial Infarction by Cine NMR - Comparison of the NMR Method to Invasive Techniques and Application to Intervention Studies -- Dempster Shafer Approach for High Level Data Fusion Applied to the Assessment of Myocardial Viability -- Invited Speaker -- Experimental and Computational Modeling of Cardiac Electromechanical Coupling -- Towards Electromechanical Modeling -- Towards Model-Based Estimation of the Cardiac Electro-Mechanical Activity from ECG Signals and Ultrasound Images -- A Physiologically-Based Model for the Active Cardiac Muscle Contraction -- Post-Systolic Thickening in Ischaemic Myocardium: A Simple Mathematical Model for Simulating Regional Deformation -- Simulation of Anisotropic Propagation in the Myocardium with a Hybrid Bidomain Model -- Imaging of Electrical Function within the Human Atrium and Ventricle from Paced ECG Mapping Data.
