1. Record Nr. UNINA9910346863503321

Autore	Wilhelms Mathias
Titolo	Multiscale Modeling of Cardiac Electrophysiology: Adaptation to Atrial and Ventricular Rhythm Disorders and Pharmacological Treatment
Pubbl/distr/stampa	KIT Scientific Publishing, 2013
ISBN	1-000-03536-0
Descrizione fisica	1 online resource (IX, 181 p. p.)
Collana	Karlsruhe transactions on biomedical engineering / Ed.: Karlsruhe Institute of Technology / Institute of Biomedical Engineering
Soggetti	Technology: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Multiscale modeling of cardiac electrophysiology helps to better understand the underlying mechanisms of atrial fibrillation, acute cardiac ischemia and pharmacological treatment. For this purpose, measurement data reflecting these conditions have to be integrated into models of cardiac electrophysiology. Several methods for this model adaptation are introduced in this thesis. The resulting effects are investigated in multiscale simulations ranging from the ion channel up to the body surface.