

Contents

Cardiac MRI Physics	1
Vivek Muthurangu and Steven Dymarkowski	
MR Contrast Agents for Cardiac Imaging	31
Yicheng Ni	
Practical Set-Up	53
S. Dymarkowski	
Cardiac Anatomy	69
J. Bogaert and A. M. Taylor	
Cardiovascular MR Imaging Planes and Segmentation	93
A. M. Taylor and J. Bogaert	
Cardiac Function	109
J. Bogaert	
Myocardial Perfusion	167
J. Bogaert and K. Goetschalckx	
Ischemic Heart Disease	203
J. Bogaert and S. Dymarkowski	
Heart Muscle Diseases	275
J. Bogaert and A. M. Taylor	
Pulmonary Hypertension	355
Shahin Moledina and Vivek Muthurangu	
Heart Failure and Heart Transplantation	367
S. Dymarkowski and J. Bogaert	
Pericardial Disease	383
J. Bogaert and A. M. Taylor	

Cardiac Masses	411
J. Bogaert and S. Dymarkowski	
Valvular Heart Disease	465
Andrew M. Taylor, Steven Dymarkowski, and Jan Bogaert	
Coronary Artery Diseases	511
S. Dymarkowski, J. Bogaert, and A. M. Taylor	
Congenital Heart Disease	553
Marina L. Hughes, Vivek Muthurangu, and Andrew M. Taylor	
Imaging of Great Vessels	611
Oliver R. Tann, Jan Bogaert, Andrew M. Taylor, and Vivek Muthurangu	
MR Guided Cardiac Catheterization	657
Vivek Muthurangu and Andrew M. Taylor	
Cardiovascular Modeling	669
Giovanni Biglino, Silvia Schievano, Vivek Muthurangu, and Andrew Taylor	
General Conclusions	695
J. Bogaert, S. Dymarkowski, A. M. Taylor, and V. Muthurangu	
Index	701