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Nota di contenuto	Structure: Coronary CT angiography – State of the Art -- Function: CT Assessment of global and regional cardiac function – State of the Art -- Perfusion: Why are we interested in myocardial perfusion -- CT evaluation of the myocardial blood supply: Technical options -- CT evaluation of the myocardial blood supply – Single-source, single-energy CT -- CT evaluation of the myocardial blood supply: Ultra-low radiation dose CT techniques -- CT evaluation of the myocardial blood supply: Dual-source dual-energy CT -- CT evaluation of the myocardial blood supply: Fast kV-switching dual-energy CT -- Dynamic, time-resolved CT imaging of myocardial perfusion: Dual-source CT -- Dynamic, time-resolved CT imaging of myocardial perfusion: 256-slice CT -- Dynamic, time-resolved CT imaging of myocardial perfusion: 320-slice CT -- CT assessment of the myocardial blood supply: Quantitative imaging -- Viability: Why are we interested in myocardial viability -- CT approaches for the assessment of myocardial viability -- CT imaging of myocardial viability: experimental and clinical evidence -- CT assessment of myocardial viability: Quantitative imaging -- Clinical Implementation: CT myocardial perfusion imaging: Clinical implementation -- Integrative imaging of coronary heart disease: Future perspectives -- Protocol recommendations.
Sommario/riassunto	The rapid evolution in cardiac computed tomography during the past decade has improved spatial and temporal resolution to the extent that cardiac CT is now an accepted alternative for the non-invasive interrogation of the heart. Beyond the assessment of cardiac structure

and ventricular function, recent research has identified yet another promising CT application for the comprehensive diagnosis of coronary heart disease, namely the assessment of myocardial perfusion and viability. In this book, the first to be devoted to this novel application of CT, leading experts from across the world present up-to-date information and consider future directions. After short sections outlining the state of the art in the traditional applications of CT to image structure and function, the full range of CT techniques that may be employed to evaluate the myocardial blood supply are discussed in detail. Similarly, diverse CT approaches for the assessment of myocardial viability are described, with careful consideration of the available experimental and clinical evidence and the role of quantitative imaging.