This book offers in-depth knowledge of medical imaging instrumentation and techniques as well as multidimensional image analysis and classification methods for research, education, and applications in computer-aided diagnostic radiology.

Computerized medical imaging and image analysis have been the central focus in diagnostic radiology. They provide revolutionizing tools for the visualization of physiology as well as the understanding and quantitative measurement of physiological parameters.

Internationally renowned researchers and experts in their respective areas provide detailed descriptions of the basic foundation as well as the most recent developments in medical imaging, thus helping readers to understand theoretical and advanced concepts for important research and clinical applications.