

1. Record Nr.	UNINA9910809402503321
Autore	Preim Bernhard
Titolo	Visual computing for medicine : theory, algorithms, and applications / / Bernhard Preim, Charl Botha
Pubbl/distr/stampa	Waltham, MA : , : Morgan Kaufmann, , 2014
ISBN	0-12-415979-6
Edizione	[Second edition.]
Descrizione fisica	1 online resource (xxiii, 812 pages) : color illustrations
Collana	The Morgan Kaufmann Series in Computer Graphics
Disciplina	616.07/54
Soggetti	Diagnostic Imaging Computer Graphics Image Processing, Computer-Assisted Surgery, Computer-Assisted User-Computer Interface Diagnostic imaging Computer graphics Computer-assisted surgery User interfaces (Computer systems)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Preceded by <i>Visualization in medicine</i> / Berhard Preim, Dirk Bartz. 2007.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Acquisition of medical image data -- An introduction to medical visualization in clinical practice -- Image analysis for medical visualization -- Human-computer interaction for medical visualization -- Surface rendering -- Direct volume visualization -- Advanced direct volume visualization -- Volume interaction -- Labeling and measurements in medical visualization -- Visualization of vascular structures -- Illustrative medical visualization -- Virtual endoscopy -- Projections and reformations -- Visualization of brain connectivity -- Visual exploration and analysis of perfusion data -- Computer-assisted surgery -- Image-guided surgery and augmented reality -- Visual exploration of simulated and measured flow data -- Visual computing for ENT surgery planning -- Visualization for medical education.
Sommario/riassunto	Visual Computing for Medicine, Second Edition, offers cutting-edge visualization techniques and their applications in medical diagnosis,

education, and treatment. The book includes algorithms, applications, and ideas on achieving reliability of results and clinical evaluation of the techniques covered. Preim and Botha illustrate visualization techniques from research, but also cover the information required to solve practical clinical problems. They base the book on several years of combined teaching and research experience. This new edition includes six new chapters on treatment pla
