

1. Record Nr.	UNINA9910404117303321
Autore	Roterman-Konieczna Irena
Titolo	Simulations in Medicine : Computer-aided diagnostics and therapy // Irena Roterman-Konieczna
Pubbl/distr/stampa	De Gruyter, 2020 Berlin ; ; Boston : , : De Gruyter, , [2020] ©2020
ISBN	9783110667219 3110667215
Edizione	[1st ed.]
Descrizione fisica	1 online resource (XVIII, 188 p.)
Soggetti	3D-Druck Chirurgische Robotik Krankenmanagement Personalisierte Therapie Simulation MEDICAL / Diagnosis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Frontmatter -- Foreword -- Contents -- Contributing authors -- 1 Personalized medicine -- 2 Machine learning approach to automatic recognition of emotions based on bioelectrical brain activity -- 3 Selected methods of quantitative analysis in electroencephalography -- 4 The visualization of the construction of the human eye -- 5 Three-dimensional printing in preoperative and intraoperative decision making -- 6 Virtual operating theater for planning Robin Heart robot operation -- 7 Hybrid room: Role in modern adult cardiac surgery -- 8 Holography as a progressive revolution in medicine -- 9 Robotic surgery in otolaryngology -- 10 Hospital management -- 11 Robotic surgery training, simulation, and data collection -- 12 Simulation in medical education—phantoms in medicine -- Index
Sommario/riassunto	Modern practical medicine requires high tech in diagnostics and therapy and in consequence in education. All disciplines use computers

to handle large data bases allowing individual therapy, to interpret large data bases in form of neuronal signals, help visualization of organs during surgery. This book contains chapters on personalised therapy, advanced diagnostics in neurology, modern techniques like robotic surgery (da Vinci robots), 3D-printing and 3D-bioprinting, augmented reality applied in medical diagnostics and therapy. It is impossible without fast large scale data mining in both: clinical data interpretation as well as in hospital organization including hybrid surgery rooms and personal data flow. The book is based on a course for medical students organized in the editor's department. Every year, around 300 international undergraduate medical students take the course.
