۱.	Record Nr.	UNISA996465605903316
	Titolo	Information Processing in Computer-Assisted Interventions [[electronic resource]]: First International Conference, IPCAI 2010, Geneva, Switzerland, June 23, 2010, Proceedings / / edited by Nassir Navab, Pierre Jannin
	Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2010
	ISBN	1-280-38726-2 9786613565181 3-642-13711-3
	Edizione	[1st ed. 2010.]
	Descrizione fisica	1 online resource (XIII, 202 p. 94 illus.)
	Collana	Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 6135
	Classificazione	610
	Disciplina	616.07/54
	Soggetti	User interfaces (Computer systems) Optical data processing Computer graphics Pattern recognition Special purpose computers User Interfaces and Human Computer Interaction Image Processing and Computer Vision Computer Graphics Pattern Recognition Computer Imaging, Vision, Pattern Recognition and Graphics Special Purpose and Application-Based Systems Kongress Genf <2010>
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Bibliographic Level Mode of Issuance: Monograph
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	CAI: Imaging, Modeling and Visualization Visualization and Planning of Neurosurgical Interventions with Straight Access Active Multispectral Illumination and Image Fusion for Retinal Microsurgery An Iterative Framework for Improving the Accuracy of Intraoperative

	Intensity-Based 2D/3D Registration for Image-Guided Orthopedic Surgery Automatic Phases Recognition in Pituitary Surgeries by Microscope Images Classification Clinical Applications and Validation C-arm Tracking by Intensity-Based Registration of a Fiducial in Prostate Brachytherapy First Animal Cadaver Study for Interlocking of Intramedullary Nails under Camera Augmented Mobile C-arm Medical Robotics, Instrumentation, and Modeling Robot- Assisted Laparoscopic Ultrasound New Kinematic Metric for Quantifying Surgical Skill for Flexible Instrument Manipulation GPU- Accelerated Robotic Intra-operative Laparoscopic 3D Reconstruction A Minimally Invasive Multimodality Image-Guided (MIMIG) Molecular Imaging System for Peripheral Lung Cancer Intervention and Diagnosis Simulating Dynamic Ultrasound Using MR-derived Motion Models to Assess Respiratory Synchronisation for Image-Guided Liver Interventions Cardiovascular Modeling and Navigation Rapid Image Registration of Three-Dimensional Transesophageal Echocardiography and X-ray Fluoroscopy for the Guidance of Cardiac Interventions Patient-Specific Modeling and Analysis of the Mitral Valve Using 3D-TEE Evaluation of a 4D Cone-Beam CT Reconstruction Approach Using an Anthropomorphic Phantom Planning, Simulation, and Guidance Determination of Pelvic Orientation from Ultrasound Images Using Patch-SSMs and a Hierarchical Speed of Sound Compensation Strategy Ultrasound Servoing of Catheters for Beating Heart Valve Repair Towards a Verified Simulation Model for Radiofrequency Ablations Early Clinical Evaluation of a Computer Assisted Planning System for Deep Brain Surgeries: 1 Year of Clinical Assistance.
Sommario/riassunto	Thanks to scientific and technological advances in many parallel fields, medical procedures are rapidly evolving towards solutions which are less invasive and more effective. In the previous decades, information processing in diagnostic imaging provided many solutions to physicians in particular within radiology, neurology, cardiology, nuclear medicine and radiation therapy departments. In the last decade, progress in computer technology, imaging and mechatronics has allowed computer-assisted intervention (CAI) systems and solutions to penetrate the intervention and operating rooms. CAI's major challenge in the beginning of the twenty-first century is real-time processing, analysis and visualization of large amount of heterogeneous, static and dynamic patient data, and understanding of surgery for designing intelligent operating rooms and developing advanced training tools. Excellent scientists, engineers and physicians have created many advanced research groups around the world and are starting to provide innovative, breakthrough solutions. Information Processing in Computer-Assisted Interventions (IPCAI) aims at gathering the best work in this field and allowing authors to present and discuss it in detail. IPCAI wishes to select and present the highlights of research in CAI and aims at distinguishing itself for the quality of the presented papers and the excitement and depth of the discussions they generate.