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Titolo	Computer-Assisted Musculoskeletal Surgery : Thinking and Executing in 3D // edited by Lucas E. Ritacco, Federico E. Milano, Edmund Chao
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Part 1. Preoperative Planning -- 1. Virtual Preoperative Planning -- 2. Computerized Tools: Allograft Selection -- 3. Computer Guided Navigation and Pre-Operative Planning for Arthroscopic Hip Surgery -- 4. Virtual Cranio-Maxillofacial Surgery Planning with Stereo Graphics and Haptics -- 5. Computational Image-guided Technologies in Cranio-maxillofacial Soft Tissue Planning and Simulation -- Part 2. Surgical Navigation -- 6. Introduction to Surgical Navigation -- 7. Bone Tumor Navigation in the Pelvis -- 8. Bone Tumor Navigation in Limbs -- 9. Direct navigation of surgical instrumentation -- 10. Navigation in Spinal Surgery -- 11. Local Tumor Ablation using Computer-Assisted Planning and Execution -- Part 3. Custom Implants -- 12. Patient-specific Instruments in Orthopaedics -- 13. Custom Implants -- 14. Patient's Specific Template for Spine Surgery -- Part 4. Robotics -- 15. The Use of ROBODOC in Total Hip and Knee Arthroplasty -- 16. A comparative study for touchless telerobotic surgery -- Part 5. Validation in computer-assisted surgical workflows -- 17. Accuracy and precision in computer-assisted methods in orthopaedic surgery.

- 18. Spinal Loading System: A Novel Technique for Assessing Spinal Flexibility in Adolescent Idiopathic Scoliosis -- Part 6. Emerging Trends -- 19. Computer simulation surgery for deformity correction of the upper extremity -- 20. 3D projection-based navigation.

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Sommario/riassunto

This book presents the latest advances in computer-aided methods for musculoskeletal surgery. Topics including preoperative planning, navigational tools, patient-specific resections, and robotic devices used in computer-assisted surgery are discussed. The various simulation and training materials currently available are described. Computer-Assisted Musculoskeletal Surgery: Thinking and Executing in 3D is aimed at surgeons, oncologists, and research and development scientists, especially those working with computer-assisted technologies.

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