

1. Record Nr.	UNINA9910149572203321
Autore	Newman Emma
Titolo	All Is Fair
Pubbl/distr/stampa	Newburyport : , : Diversion Publishing Corp., , 2016 ©2016
Descrizione fisica	1 online resource (291 pages)
Collana	The Split Worlds ; ; v.3
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- All Is Fair -- Copyright -- Dedication -- 1 -- 2 -- 3 -- 4 -- 5 -- 6 -- 7 -- 8 -- 9 -- 10 -- 11 -- 12 -- 13 -- 14 -- 15 -- 16 -- 17 -- 18 -- 19 -- 20 -- 21 -- 22 -- 23 -- 24 -- 25 -- 26 -- 27 -- 28 -- 29 -- 30 -- Acknowledgments -- More from Emma Newman -- Connect with Diversion Books.

2. Record Nr.	UNINA9910906299903321
Autore	Di Ieva Antonio
Titolo	Computational Neurosurgery // edited by Antonio Di Ieva, Eric Suero Molina, Sidong Liu, Carlo Russo
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031648922 3031648927
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (561 pages)
Collana	Advances in Experimental Medicine and Biology, , 2214-8019 ; ; 1462
Altri autori (Persone)	Suero MolinaEric LiuSidong RussoCarlo
Disciplina	617.48
Soggetti	Computational neuroscience Nervous system - Surgery Artificial intelligence Computational Neuroscience Neurosurgery Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Computational Neurosurgery: Foundation -- Part I: Foundations of Computational Neurosurgery -- Declaration of Computational Neurosurgery -- Artificial Intelligence Methods -- Deep Learning: A Primer for Neurosurgeons -- Mathematical background of Machine Learning & Deep Learning -- Computational fractal-based Neurosurgery -- Graph theory and modeling of network topology in clinical neurosurgery -- Computer Vision in digital neuropathology -- Bayesian Neural Networks in predictive neurosurgery -- Big data in neurosurgery -- Large Language Models in Neurosurgery -- Part II: Computational Neurosurgery Applications & Translational Aspects -- AI and deep learning in brain tumors -- Meta-transfer Learning for Brain Tumor Segmentation: Within and Beyond Glioma -- Machine learning and radiomics in gliomas -- Machine Learning in fluorescence-guided brain tumor surgery -- AI and computational modeling in skull base surgery -- Applications and Integration of Radiomics for Skull Base

Oncology -- Computational modeling and AI in radiation neuro-oncology and radiosurgery -- Multimodal neuroimaging computing: Basics and applications in neurosurgery -- The Brain Connectome for Clinical Neuroscience -- Augmented reality in neurosurgery -- Virtual and Augmented Reality in neurosurgery -- Machine Intelligence in cerebrovascular and endovascular neurosurgery -- Computational fluid dynamics in vascular neurosurgery -- Computational fluid dynamics of cerebrospinal fluid -- Computational Neurosurgery in Deep Brain Stimulation -- Computational modeling, augmented reality, and Artificial Intelligence in spine surgery -- Artificial Intelligence in spine and paravertebral muscles analysis -- Computational prognostic modeling in traumatic brain injury -- Comprehensive overview of computational modeling and artificial intelligence in pediatric neurosurgery -- Machine Learning in Pain Neuromodulation -- Neurosurgery and the brain computer interface -- Ethical aspects of computational neurosurgery -- Explainable AI and Laws in Computational neurosurgery.

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#### Sommario/riassunto

This comprehensive and authoritative reference presents the state-of-the-art computational methods applied to the field of neurosurgery. The book brings together leading neuroscientists, neurosurgeons, mathematicians, computer scientists, engineers, ethicists and lawyers, to open the new frontier of computational neurosurgery to a broad audience interested in the translational field of the application of computational models, such as deep learning, to the study of the brain and the practical applications of neurosurgery. The focus is primarily clinical, and there is a solid foundation of research aspects. With forewords by Michael L.J. Apuzzo and Enrico Coiera, the book is organized into 2 sections: (1) tenets of computational modeling, artificial intelligence, computational analysis, and analysis software; (2) computational neurosurgery applications, including neurodiagnostics, neuro-oncology, vascular neurosurgery, all the neurosurgical disciplines, surgical approaches, intraoperative applications, and ethics and legal aspects.

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