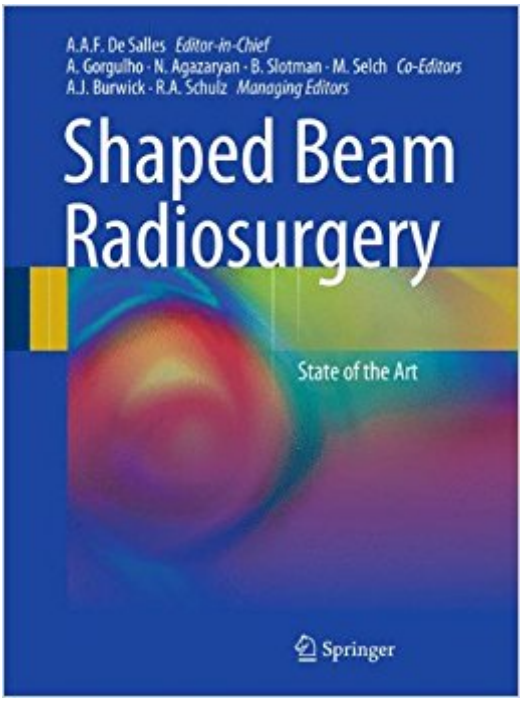
Shaped Beam Radiosurgery: State Of The Art



Synopsis

NovalisÂ® Shaped Beam Radiosurgery has set new standards by delivering highly precise radiation treatments to tumors anywhere in the body through the use of a proprietary multileaf collimator. By shaping the radiation beam to the exact contours of the tumor or lesion, Novalis permits maximum dose delivery to the entire tumor while protecting healthy tissue; this makes it eminently suitable for the treatment of irregularly shaped tumors. This book provides a complete guide to radiosurgery treatments with Novalis. After a thorough discussion of the clinical and technical basis for Shaped Beam Radiosurgery, current clinical applications are considered in detail, including brain, body, skull base, and spinal tumors as well as arteriovenous malformations. Careful consideration is also given to future developments and applications, including new technologies that promise to offer even more accurate treatments. This state-of-the-art book will appeal to a wide audience of physicians and their multidisciplinary clinical and technical collaborators.

Book Information

Hardcover: 316 pages
Publisher: Springer; 2011 edition (May 16, 2011)
Language: English
ISBN-10: 3642111505
ISBN-13: 978-3642111501
Product Dimensions: 7.9 x 0.8 x 10.3 inches
Shipping Weight: 2.1 pounds (View shipping rates and policies)
Average Customer Review: 5.0 out of 5 stars 1 customer review
Best Sellers Rank: #3,987,054 in Books (See Top 100 in Books) #49 inÂ Books > Textbooks > Medicine & Health Sciences > Medicine > Special Topics > Lasers in Medicine #72 inÂ Books > Medical Books > Medicine > Lasers in Medicine #1203 inÂ Books > Textbooks > Medicine & Health Sciences > Medicine > Basic Sciences > Biochemistry

Customer Reviews

From the reviews:â œThis text is both an atlas and monograph concerning the use of radiosurgery in brain tumors, functional disorders of the CNS, and Vascular Neurosurgery. â | I recommend this book to all who are involved in neurosurgery, rad onc, and radiation physics.â • (Joseph J. Grenier, .com, May, 2014)

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treatments to tumors anywhere in the body through the use of a proprietary multileaf collimator. By shaping the radiation beam to the exact contours of the tumor or lesion, Novalis permits maximum dose delivery to the entire tumor while protecting healthy tissue; this makes it eminently suitable for the treatment of irregularly shaped tumors. Novalis features 360Â gantry rotation, stereoscopic kV X-ray imaging, and 6D robotic patient positioning. Dose delivery is typically achieved through fixed conformal beams, dynamic conformal arcs, and IMRT, and most brain treatments do not require an invasive head frame. This book provides a complete guide to radiosurgery treatments with Novalis. After a thorough discussion of the clinical and technical basis for Shaped Beam Radiosurgery, current clinical applications are considered in detail, including brain, body, skull base, and spinal tumors as well as arteriovenous malformations. Careful consideration is also given to future developments and applications, including new technologies that promise to offer even more accurate treatments. This state-of-the-art book will appeal to a wide audience of physicians and their multidisciplinary clinical and technical collaborators.

Beam Shaped RadiosurgeryAAF Desalles MD, UCLAJoseph J Grenier MD PhDSpringer New York Berlin HeidelbergThis text is both an atlas and monograph concerning the use of radiosurgery in brain tumors, functional disorders of the CNS, and Vascular Neurosurgery. Dr. DeSalles reviews the world literature and compares it to his experience at UCLA. Intracranial gliomas, meningiomas, craniopharingiomas, spinal cord lesions, and other lesions are given good coverage with respect to evidence in the world neurosurgical, and radiation oncology literature.This book uses radiophysics material involving conformal, proton, and electron beams. The disadvantages and advantages of each type of particle beams is discussed. The book downplays the role of proton beam therapy. I recommend this book to all who are involved in neurosurgery, rad onc, and radiation physics.

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