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Titolo	Diffusion-Weighted MR Imaging of the Brain, Head and Neck, and Spine / / edited by Toshio Moritani, Aristides A. Capizzano
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Nota di contenuto	Basics of Diffusion Measurements by MRI -- Diffusion-Weighted and Tensor Imaging of the Normal Brain -- Pitfalls and Artifacts of DW Imaging -- Brain Edema -- Infarction -- Intracranial Hemorrhage -- Vasculopathy and Vasculitis -- Epilepsy -- Demyelinating and Degenerative Diseases -- Toxic and Metabolic Diseases -- Infectious Diseases -- Trauma -- Brain Neoplasms -- Pediatrics -- Head and Neck -- Spine and spinal cord -- How to Use This Book.
Sommario/riassunto	This richly illustrated book, now in an updated and extended third edition, systematically covers the use of diffusion-weighted (DW) MR

imaging in all major areas of neuroradiology, including imaging of the head and neck and the spine as well as the brain. The authors guide the reader from the basic principles of DW imaging through to the use of cutting-edge diffusion sequences such as diffusion tensor (DTI) and kurtosis (DKI), fiber tractography, high b value, intravoxel incoherent motion (IVIM), neurite orientation dispersion and density imaging (NODDI), and oscillating gradient spin echo (OGSE). Pathology, pathophysiology, and patient management and treatment are all thoroughly discussed. Since the early descriptions by LeBihan and colleagues of the ability to image and measure the micromovement of water molecules in the brain, diffusion imaging and its derivatives have contributed ever more significantly to the evaluation of multiple disease processes. In comprehensively describing the state of the art in the field, this book will be of high value not only for those who deal routinely with neuro-MR imaging but also for readers who wish to establish a sound basis for understanding diffusion images in the hope of extending these principles into more exotic areas of neuroimaging.