

1. Record Nr.	UNINA9910298081203321
Titolo	Virtual Reality for Physical and Motor Rehabilitation // edited by Patrice L. (Tamar) Weiss, Emily A. Keshner, Mindy F. Levin
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 2014
ISBN	1-4939-0968-1
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (242 p.)
Collana	Virtual Reality Technologies for Health and Clinical Applications, , 2199-4684
Disciplina	616.8046
Soggetti	Rehabilitation Neuropsychology Application software Physiotherapy Health psychology Occupational therapy Computer Appl. in Social and Behavioral Sciences Health Psychology Occupational Therapy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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	Volume Introduction and Overview -- Neuroplasticity and Virtual Reality -- Motor Learning and Virtual Reality -- Vision, Perception and Object Manipulation in Virtual Environments -- Sensorimotor Recalibration in Virtual Environments -- Validity of virtual reality environments for sensorimotor rehabilitation -- Rehabilitation Applications using Virtual Reality for Persons with Residual Impairments following Stroke -- Virtual reality augmented training for improving walking and reducing fall risk in patients with neurodegenerative disease -- Virtual Reality Reveals Mechanisms of Balance and Locomotor Impairments.
Sommario/riassunto	While virtual reality (VR) has influenced fields as varied as gaming, archaeology, and the visual arts, some of its most promising applications come from the health sector. Particularly encouraging are

the many uses of VR in supporting the recovery of motor skills following accident or illness. *Virtual Reality for Physical and Motor Rehabilitation* reviews two decades of progress and anticipates advances to come. It offers current research on the capacity of VR to evaluate, address, and reduce motor skill limitations, and the use of VR to support motor and sensorimotor function, from the most basic to the most sophisticated skill levels. Expert scientists and clinicians explain how the brain organizes motor behavior, relate therapeutic objectives to client goals, and differentiate among VR platforms in engaging the production of movement and balance. On the practical side, contributors demonstrate that VR complements existing therapies across various conditions such as neurodegenerative diseases, traumatic brain injury, and stroke. Included among the topics: Neuroplasticity and virtual reality. Vision and perception in virtual reality. Sensorimotor recalibration in virtual environments. Rehabilitative applications using VR for residual impairments following stroke. VR reveals mechanisms of balance and locomotor impairments. Applications of VR technologies for childhood disabilities. A resource of great immediate and future utility, *Virtual Reality for Physical and Motor Rehabilitation* distills a dynamic field to aid the work of neuropsychologists, rehabilitation specialists (including physical, speech, vocational, and occupational therapists), and neurologists.
