

# Contents

<b>1</b>	<b>Volume Introduction and Overview .....</b>	<b>1</b>
	Patrice L. (Tamar) Weiss, Emily A. Keshner, and Mindy F. Levin	
<b>2</b>	<b>Neuroplasticity and Virtual Reality.....</b>	<b>5</b>
	Katharine L. Cheung, Eugene Tunik, Sergei V. Adamovich, and Lara A. Boyd	
<b>3</b>	<b>Motor Learning and Virtual Reality .....</b>	<b>25</b>
	Danielle E. Levac and Heidi Sveistrup	
<b>4</b>	<b>Vision, Perception, and Object Manipulation in Virtual Environments .....</b>	<b>47</b>
	Robert V. Kenyon and Stephen R. Ellis	
<b>5</b>	<b>Sensorimotor Recalibration in Virtual Environments.....</b>	<b>71</b>
	W. Geoffrey Wright, Sarah H. Creem-Regehr, William H. Warren, Eric R. Anson, John Jeka, and Emily A. Keshner	
<b>6</b>	<b>Validity of Virtual Reality Environments for Sensorimotor Rehabilitation .....</b>	<b>95</b>
	Mindy F. Levin, Judith E. Deutsch, Michal Kafri, and Dario G. Liebermann	
<b>7</b>	<b>Rehabilitation Applications Using Virtual Reality for Persons with Residual Impairments Following Stroke.....</b>	<b>119</b>
	Alma S. Merians and Gerard G. Fluet	
<b>8</b>	<b>Virtual Reality Augmented Training for Improving Walking and Reducing Fall Risk in Patients with Neurodegenerative Disease .....</b>	<b>145</b>
	Anat Mirelman, Judith E. Deutsch, and Jeffrey M. Hausdorff	

<b>9 Virtual Reality Reveals Mechanisms of Balance and Locomotor Impairments .....</b>	<b>169</b>
Anouk Lamontagne, Emily A. Keshner, Nicoleta Bugnariu, and Joyce Fung	
<b>10 Applications of VR Technologies for Childhood Disability .....</b>	<b>203</b>
Dido Green and Peter Wilson	
<b>11 Current and Future Trends for VR and Motor Rehabilitation .....</b>	<b>217</b>
Patrice L. (Tamar) Weiss, Emily A. Keshner, and Mindy F. Levin	
<b>Index.....</b>	<b>227</b>

Virtual Reality for Physical and Motor Rehabilitation

Weiss, P.L.T.; Keshner, E.A.; Levin, M.F. (Eds.)

2014, IX, 232 p. 50 illus., Hardcover

ISBN: 978-1-4939-0967-4