

Special Issue

Neuromechanical Principles of Perturbed and Unperturbed Motion Control

Message from the Guest Editors

Real-world environments rarely allow for stable and constant movement, and most often, unsteadiness and unpredictable disturbances are involved. Through an integration of analytical, computational, and experimental approaches, the various neuromechanical networks and mechanisms (e.g., proprioceptive feedback, sensorimotor integration, muscle-tendon interaction, reflexes, preflexes) that are involved in the control of movement can be explored. Promoting research in this field will improve our understanding of how vertebrate systems organize their movements and how wearable assistive devices may augment and assist human motion in both steady and unsteady conditions. This Special Issue invites authors to contribute new knowledge about movement control in steady and unsteady conditions. A broad range of related topics is welcome, such as methodological innovations for the analysis of movements, assistive exoskeleton technology, or modeling and experimental studies investigating mechanisms of motor control and muscle-tendon mechanics.

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