Special Issue

Adaptive Locomotion in Humans: From Development to Clinical Application

Message from the Guest Editors

Human locomotion is a complex and dynamic process involving the seamless integration of neurological, biomechanical, and developmental systems. Adaptive locomotion—the ability to modify gait in response to environmental, cognitive, or physiological challenges—is essential for functional mobility across a patient's lifespan. This Special Issue aims to explore the multifaceted nature of adaptive locomotion in humans, bringing together cutting-edge research from developmental studies in children, neuromechanics, and neuroscience to clinical applications in gait assessment and rehabilitation. Topics of interest include the development of motor control strategies in early childhood, neural and mechanical adaptations during walking and running, sensorimotor integration, and the use of novel technologies and methodologies for gait diagnosis and therapeutic intervention.

- human locomotion
- adaptive locomotion
- neuromechanics
- biomechanics
- developmental systems
- gait assessment and rehabilitation

Guest Editors

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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