

Special Issue

Biomechanics and Neural Control of Rhythmic Movement

Message from the Guest Editors

Rhythmic movements are frequently considered separate from discrete ones in motor control. The increasing interest in finding a comprehensive model for movement generation requires bridging the different perspectives arising from the study of rhythmic movements. The typically studied rhythmic movements are finger tapping, walking, and running. However, many everyday activities constitute rhythmic behavior, i.e., ascending or descending stairs. Also, in many physical fitness activities, rhythmic behavior is an inherent characteristic. Biomechanical analysis of the metrics that define or differentiate rhythmic movements is important for understanding the processes involved in the generation of such movements. Thus, rhythmicity may provide insight into the motor control of cyclic movements and contribute to the explanation of why rhythmic movement is extremely useful not only in improving coordination in healthy individuals but also serving as a drug-free approach to help alleviate physical challenges by stimulating the ability of the brain and the nervous system.

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