

Special Issue

Neuromodulation and Motor Skill Enhancement: Prospective Applications

Message from the Guest Editors

Motor skill learning remains an interesting and developing area of research regarding impaired and unimpaired movement. In the last few decades, new technologies have emerged that could enhance motor skill learning and act as a 'hack' for the brain that takes skilled re-learning or optimization to the next level. Many of these technologies rely on developing or strengthening cortical circuits in brain movement areas via non-invasive brain stimulation. However, the application of non-invasive brain stimulation is not generalizable. Instead, the most effective applications are nuanced and dependent on, for example, the task being utilized, the frequency and duration of practice, and the most active brain regions. Information on non-invasive brain stimulation and motor skill learning continues to evolve via engaging individuals in careful, controlled, and varied tasks, from button pressing with a single digit to whole-body movements, thus providing new insights to scientists and clinicians. In this Special Issue, we seek contributions that cover advances and prospective applications of non-invasive brain stimulation as a means of neuromodulation to develop and improve motor skills.

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