

EEG Correlates of the Flow State During Sports Performance

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The flow state is defined as an optimal state of consciousness in which athletes experience total absorption, feelings of being extremely focused, and prolonged pleasantness. Such a concept has recently received particular interest in sports science because of a possible tight relationship with enhanced athletic performance. Hitherto, the attempts to investigate the neural correlates of the flow state are scarce and, most importantly, often limited to a laboratory setting. However, the advancements in neuroscience measurement technologies, particularly the development of portable and low-cost EEG technology, allow applications across a variety of fields, which, in turn, facilitates widespread use and accessibility. Here we will present data obtained through a wearable and non-invasive neurotechnology device (Muse 2), which transmits raw wave data from the pre-frontal cortex. This data is expressed numerically in microvolts with a sampling frequency of 256Hz. Such a system is based on an innovative mathematical model and can obtain online and standardized neural signatures of the flow state of athletes. The device has been tested in golf with the Golf Us Performance Center coaches.

If you're submitting a symposium talk, what's the symposium title?

Symposium Title: Sharper minds, Smarter athletes: the Cognitive Side of Sports

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No

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