

Sharper minds, Smarter athletes: the Cognitive Side of Sports

Thursday, September 11, 2025 5:30 PM (1h 30m)

The symposium examines the cognitive and neuropsychological foundations of athletic performance, with a focus on how sports practice both engages and shapes higher-order mental functions. Drawing on converging evidence from neuroscience, psychology, and motor sciences, the symposium tackles aspects related to flow state, effort, cognitive-motor training, perceptual learning and concussion. The first presentation unveils the neurophysiological correlates of the flow state in athletes. The second presentation addresses the neurophysiological signatures of sustained effort during complex tasks, using EEG measures to investigate cortical dynamics under varying cognitive and physical loads. The third contribution explores the efficacy of dual-task cognitive-motor training paradigms, especially when mediated by virtual-reality technologies, on enhancing executive functioning in athletes. The fourth presentation investigates the influence of sports-specific expertise on audiovisual integration, comparing racket sport athletes and swimmers. The impact of sports-related concussion on cognitive functioning is addressed in the last study, highlighting subtle neurocognitive alterations that often elude standard clinical evaluation. Overall, the symposium offers a multidisciplinary perspective on the cognitive underpinnings of sports performance, with implications for training design, injury management, and athlete development.

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

If you're submitting a symposium, or a talk that is part of a symposium, is this a junior symposium?

No

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