

Mobile Applications for Assessing Athletic Performance

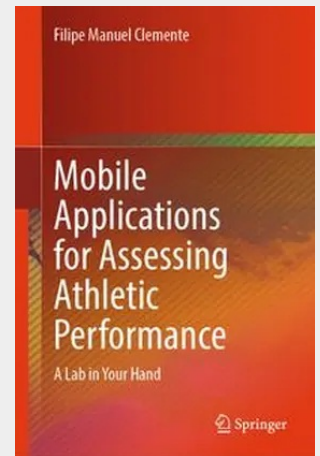
A Lab in Your Hand

This book provides a concise, evidence-informed guide to using mobile applications to measure and monitor human sports performance, turning a smartphone into a practical 'lab in your hands'. It synthesizes what can (and cannot) be measured with apps and connected wearables, and it translates research concepts (validity, reliability, sensitivity, and meaningful change) into procedures for coaches, sport scientists, clinicians, and students.

Across strength, power, speed, agility/change-of-direction, physical health and readiness, training-load monitoring, and kinematic/technique analysis, the book explains the underlying principles, typical measures, and the most frequent sources of measurement error. Each topic is organized around real-world workflows: device setup, test standardization, data capture, quality control, interpretation, and reporting. The emphasis is on decision-making, i.e., how to select an app, evaluate whether its outputs are trustworthy for the intended use, and integrate multiple data streams into training prescription and athlete management.

The primary audience includes sport and exercise scientists, strength and conditioning professionals, performance analysts, physiotherapists/sports medicine practitioners, and postgraduate students seeking a compact reference for field-based performance measurement using mobile technologies.

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