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Sensors and Musculoskeletal Dynamics to Evaluate Human Movement

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Message from the Guest Editors

The Special Issue "Sensors and Musculoskeletal Dynamics to Evaluate Human Movement" aims to highlight the necessity of sensing and modeling to extract metrics of human performance in research, clinical, and sports applications. We welcome contributions that combine sensors and models to quantify and explain human performance.

Contributions that address but are not restricted to the following topics are welcome:

- Wearable sensors to measure human performance in terms of: Kinematics; Kinetics; Musculotendon mechanics; Energetics and/or metabolic cost;
- Neuromuscular and musculoskeletal models to estimate performance metrics from wearable sensors;
- Reliability and accuracy of direct sensor measurements versus model-based estimates;
- Experiments and methods to identify and quantify sensor borne errors due to noise, bias, and drift;
- Improvements in sensor to model registration and calibration;
- Algorithms to combine and integrate multiple sensors to extract novel measures of performance or to improve upon the accuracy and reliability of existing metrics;
- Models and methods to standardize measurements and comparison of human performance across individuals.





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Editor-in-Chief

Message from the Editor-in-Chief

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