



Advances in Sensing-Based Animal Biomechanics

Guest Editor:

Prof. Dr. Christian Peham

Department for Companion
Animals and Horses, University of
Veterinary Medicine,
Veterinärplatz 1, 1210 Vienna,
Austria

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Message from the Guest Editor

Sensors in animal biomechanics are used for clinical applications as well as for animal monitoring in all areas. In particular, inertial measurement units (IMU) are key elements in lameness evaluation, feedback systems, and motion analysis in animal biomechanics and can be combined with EMG systems (muscle activity) and ultrasound systems to detect muscle activity and tendon strains.

This Special Issue aims to highlight advances sensing in animal biomechanics covering the development, testing, and modeling of biomechanical sensors on the component level as well as within biomechanical systems. Topics include but are not limited to:

- Accelerometers;
- Gyroscopes;
- Force sensors (strain gauge, piezo, etc.);
- Pressure sensors (capacitive, optical, piezo, strain gauge, etc.);
- Fibre optic sensors;
- EMG electrodes (surface, needle, array, capacitive);
- Ultrasound sensors;
- Ultra-wide band radar;
- Goniometers;
- Optical tracking systems;
- Nanomaterial-based sensors;
- Advanced sensor characterization techniques;
- Sensor error modeling and online calibration;
- Pattern recognition algorithm;
- Deep learning





sensors



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Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Department of Electrical and
Information Engineering,
Politecnico di Bari, Via Orabona
4, 70126 Bari, Italy

Message from the Editor-in-Chief

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Sensors Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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