# **Special Issue**

# Neuromechanical Principles of Perturbed and Unperturbed Motion Control

## Message from the Guest Editors

Real-world environments rarely allow for stable and constant movement, and most often, unsteadiness and unpredictable disturbances are involved. Through an integration of analytical, computational, and experimental approaches, the various neuromechanical networks and mechanisms (e.g., proprioceptive feedback, sensorimotor integration, muscle-tendon interaction, reflexes, preflexes) that are involved in the control of movement can be explored. Promoting research in this field will improve our understanding of how vertebrate systems organize their movements and how wearable assistive devices may augment and assist human motion in both steady and unsteady conditions. This Special Issue invites authors to contribute new knowledge about movement control in steady and unsteady conditions. A broad range of related topics is welcome, such as methodological innovations for the analysis of movements, assistive exoskeleton technology, or modeling and experimental studies investigating mechanisms of motor control and muscletendon mechanics.

### **Guest Editors**

Prof. Dr. Adamantios Arampatzis

Department of Training and Movement Sciences, Humboldt-Universität zu Berlin, Philippstr. 13, 10115 Berlin, Germany

Dr. Sebastian Bohm

Department of Training and Movement Sciences, Humboldt-Universität zu Berlin, 10115 Berlin, Germany

### Deadline for manuscript submissions

20 December 2025



# **Sensors**

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



mdpi.com/si/89039

Sensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sensors@mdpi.com

mdpi.com/journal/ sensors





# **Sensors**

an Open Access Journal by MDPI

Impact Factor 3.5 CiteScore 8.2 Indexed in PubMed



# **About the Journal**

## Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

#### Editor-in-Chief

#### Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

# **Author Benefits**

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

### **High Visibility:**

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

#### Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Instrumentation)

