Special Issue

The Effects of High-Intensity Training Variations on Biomechanic, Physiology, Biochemistry and Performance in Athletes

Message from the Guest Editors

Dedication to exercise often incorporates high-intensity training (HIT) variations into people's periodization plans to maximize health benefits and performance in physical activity trainees and athletes, respectively. Common HIT variations include high-intensity interval training (HIIT), sprint intensity interval training (SIIT), repeated sprint training (RPT), and ultra-short race-pace training (USRPT), among others. These variations differ in volume, interval duration, intensity, repeatability, etc. Therefore, utilizing precise training regimens tailored to the specific needs for promoting health or performance improvement is becoming the gold standard for coaching science. By exploring the intricate relationship between HIT and various training factors, this Special Issue aims to offer guidance to experts on how they will manage their training periodization. We encourage you to submit original research articles, reviews (narrative, scoping, systematic, and meta-analysis), and case studies to further our collective understanding of this critical area. We look forward to receiving your valuable research.

Guest Editors

Dr. George A. Tsalis

School of Physical Education and Sports Science, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece

Dr. Konstantinos Papadimitriou

Faculty of Health and Rehabilitation Sciences, University of East London, Metropolitan College of Thessaloniki, 54624 Thessaloniki, Greece

Deadline for manuscript submissions

25 August 2025



Sports

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.1
Indexed in PubMed



mdpi.com/si/225174

Sports MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34

mdpi.com/journal/ sports

sports@mdpi.com





Sports

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 4.1 Indexed in PubMed





Message from the Editor-in-Chief

Sports (ISSN 2075-4663) is a peer-reviewed scientific journal that publishes original articles, critical reviews, research notes and short communications in the interdisciplinary area of sport sciences and public health. It links several scientific disciplines in an integrated fashion, to address critical issues related to sport science and public health. The journal presents diverse original articles, including systematic and narrative reviews, cohort and case control studies, innovative randomized trials, and formative research using qualitative and quantitative methods with the aim to provide information for researchers to plan intervention programs. It addresses diverse public health, physical activity and exercise science topics.

Editor-in-Chief

Prof. Dr. Eling Douwe De Bruin

- 1. Institute of Human Movement Sciences and Sport, IBWS ETH, HCP H 25.1, Leopold-Ruzicka-Weg 4, CH-8093 Zürich, Switzerland
- 2. Karolinska Institutet, Stockholm, Sweden

Author Benefits

High Visibility:

indexed within Scopus, ESCI (Web of Science), PubMed, PMC, and other databases.

Journal Rank:

JCR - Q2 (Sport Sciences) / CiteScore - Q2 (Physical Therapy, Sports Therapy and Rehabilitation)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 19.1 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2024).

