



METADATA

Title: Sport Biomechanics

Other Titles: Principles and Methods of Biomechanical Analysis of Human Movement

Language: Greek

ISBN: 978-960-603-018-5

Subject: MEDICINE AND HEALTH SCIENCES, LIFE SCIENCES, BIOLOGICAL SCIENCES, ENGINEERING AND TECHNOLOGY

Keywords: Biomechanics / Sport Kinesiology / Experimental Sport Biomechanics

Bibliographic Reference: Kellis, E. (2015). Sport Biomechanics [Undergraduate textbook]. Kallipos, Open Academic Editions. <http://dx.doi.org/10.57713/kallipos-540>

Abstract

This book is addressed to undergraduate and postgraduate students who study human movement and, sport movement, in particular. It is also useful for teachers of physical education, coaches, physiotherapists, sport medicine practitioners etc.

The purpose of the book is to provide a detailed description of laws that govern sport movement in a way that is easily understood by anyone who is interested in studying sport. Teachers, students and professionals can find material for both methods and analysis of sport techniques.

The book presents the basic sections of biomechanical analysis

of sport techniques, including the kinematic analysis, the kinetic analysis, electromyography, dynamometry and energy - projectile motion. Each section is a separate teaching module and includes, the basic theoretical background and, second, the corresponding laboratory background. The last three chapters presents examples of biomechanical analysis from selected sports including walking and running, sprint hurdles, long jump, high jump, tennis serve, giant circle in gymnastics, free stroke in swimming, soccer kick, jump shot in basketball, jump throw in handball and volleyball spike.

