

Animals have evolved remarkable biomechanical and physiological systems that enable their rich repertoire of motion. *Animal Locomotion* offers a fundamental understanding of animal motion through a broad comparative and integrative approach, including basic mathematics and physics, examination of new and enduring literature, consideration of classic and cutting-edge methods, and a strong emphasis on the core concepts that consistently ground the dizzying array of animal movements. Across scales and environments, this book integrates the biomechanics of animal movement with the physiology of animal energetics and the neural control of locomotion. This second edition has been thoroughly revised, incorporating new content on non-vertebrate animal locomotor systems, studies of animal locomotion that have inspired robotic designs, and a new chapter on the use of evolutionary approaches in locomotor mechanisms and performance.

Animal Locomotion is suitable for undergraduate and graduate level students taking related courses in animal physiology and movement as well as researchers in the fields of bio-inspired robotics, biomechanics, physiology, and evolutionary biology.



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