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Sommario/riassunto

Neuroscience is an interdisciplinary field that strives to understand the functioning of neural systems at levels ranging from biomolecules and cells to behaviour and higher brain functions (perception, memory, cognition). Neurophysics has flourished over the past three decades, becoming an indelible part of neuroscience, and has arguably entered its maturity. It encompasses a vast array of approaches stemming from theoretical physics, computer science, and applied mathematics. This book provides a detailed review of this field from basic concepts to its most recent development.