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Sommario/riassunto	The prefrontal cortex is known to play important roles for performing a variety of higher cognitive functions. Among regions of the prefrontal cortex, the dorsolateral prefrontal cortex plays the most important roles for these functions. This book focuses on functions of the dorsolateral prefrontal cortex, summarizes research results obtained mainly by non-human primate studies, and describes neural mechanisms of executive functions that the dorsolateral prefrontal cortex participates. First, to understand the feature of the dorsolateral prefrontal cortex and how its function has been understood, anatomical and functional features of the dorsolateral prefrontal cortex and

historical overview of prefrontal functions are described. To understand functions of the prefrontal cortex and neural mechanisms of executive functions, working memory is an important concept and sustained activation during the memory period of working memory tasks is known as a neural mechanism of working memory. Therefore, this book describes features of sustained memory-related activity based on neurophysiological results obtained in the prefrontal cortex and how memory-related activity contributes to executive functions including control of attention, inhibitory control, task management, and planning. And further, this book describes how the dorsolateral prefrontal cortex contributes to neural mechanisms for sensory and motor processing, memory control in multi-task performance, decision-making, metacognition, and top-down control. Thus, this book provides important information regarding neural mechanisms of dorsolateral prefrontal functions to neuroscientists and helps to plan further investigation to understand prefrontal functions in primates and human subjects.