

1. Record Nr.	UNINA9910869175503321
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Titolo	Neurobiology of Interval Timing / / edited by Hugo Merchant, Victor de Lafuente
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2024
ISBN	9783031601835 9783031601828
Edizione	[2nd ed. 2024.]
Descrizione fisica	1 online resource (288 pages)
Collana	Advances in Experimental Medicine and Biology, , 2214-8019 ; ; 1455
Altri autori (Persone)	LafuenteVictor de
Disciplina	612.8
Soggetti	Neurosciences Neurophysiology Neural networks (Neurobiology) Neuroscience Systems Neuroscience
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I: Neurobiology of interval timing -- A second introduction to the Neurobiology of Interval Timing -- Creating a home for timing researchers: Then, now, and the future -- The processing of short time intervals: Some critical issues -- Models of Interval Timing: Seeing the forest for the trees -- Part II: Neurophysiology of timing -- Neural sequences and the encoding of time -- Temporal information processing in the cerebellum and basal ganglia -- Diverse time encoding strategies within the medial premotor areas of the primate -- Interactions of temporal and sensory representations in the basal ganglia -- Estimating time and rhythm by predicting external stimuli -- Cognition of time and thinkings beyond -- Part III: Timing in humans -- The motor of time: Coupling action to temporally predictable events heightens perception -- Coordinate-Based Meta-Analyses of the Time Perception Network -- Probing beat perception with event-related potentials (ERPs) in human adults, newborns, and non-human primates -- Rhythms in speech -- Timing patterns in the extended basal ganglia system.

## Sommario/riassunto

The study of how the brain processes time is becoming one of the most important topics in systems, cellular, computational, and cognitive neuroscience, as well as in the physiologic bases of music and language. During the last and current decade, interval timing has been intensively studied in humans and animals using increasingly sophisticated approaches. This new edition of the Neurobiology of Interval Timing integrates the current knowledge of animal behavior and human cognition of the passage of time in different behavioral contexts, including the perception and production of time intervals, as well as rhythmic activities. The chapters are written by the leading experts in the fields of psychophysics, functional imaging, systems neurophysiology, and musicology. The new edition features a complete updating of the content with many new chapters. The main updates are the remarkable advances in our understanding of the neural basis of temporal processing in monkeys, rodents, and humans. The notion is that the neural clock depends on the dynamics of neural populations in the motor system, and that this general internal time representation interacts with the sensory and cognitive systems depending on the timing requirements and the behavioral contingencies of a specific task. Also, this edition delineates a clearer distinction between interval-based and beat-based timing in humans. .

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