

1. Record Nr.	UNINA9910826096803321
Titolo	Human brain function // editors, Richard S.J. Frackowiak ... [et. al.]
Pubbl/distr/stampa	Amsterdam ; ; Boston, : Elsevier Academic Press, c2004
ISBN	1-280-96833-8 9786610968336 0-08-047295-8
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (1161 p.)
Altri autori (Persone)	FrackowiakRichard S. J
Disciplina	612.8/2 612.82
Soggetti	Neuropsychology Brain mapping Cognition Brain - Imaging
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	PART 1 IMAGING NEUROSCIENCE BRAIN SYSTEMS; SECTION 1 SENSORY, MOTOR AND PLASTICITY; 1 The Motor System; 2 Motor Control of Breathing; 3 Perceptual Construction; 4 Auditory Function; 5 Somesthetic Function; 6 The Cerebral Basis of Functional Recovery; 7 Applied Computational Neuroanatomy in Disease; 8 Plasticity in Cochlear Implant Patients; SECTION 2 VISION AND VISUAL PERCEPTION; 9 Functional Specialisation in the Visual Brain: Probable and Improbable Visual Areas; 10 Insights into Visual Consciousness; 11 Processing Systems as Perceptual Systems; 12 The Asynchrony of Visual Perception 13 The Chronoarchitecture of the Human Brain: Functional Anatomy Based on Natural Brain Dynamics and the Principle of Functional Independence 14 Unilateral Neglect and the Neuroanatomy of Visuospatial Attention; SECTION 3 HIGHER COGNITIVE FUNCTIONS; 15 Mechanisms of Attention; 16 The Neural Correlates of Consciousness; 17 Functional Imaging of Cognitive Psychopharmacology; 18 Mechanisms of Control; SECTION 4 EMOTION AND MEMORY; 19 Functional Neuroanatomy of Human Emotion; 20 Central Representation of Autonomic States; 21 Reciprocal Links Between

Emotion and Attention

22 Brain Systems Mediating Reward 23 Implicit Memory; 24 Explicit Memory; 25 Prefrontal Cortex and Long-Term Memory Encoding and Retrieval; SECTION 5 LANGUAGE AND SEMANTICS; 26 An Overview of Speech Comprehension and Production; 27 The Feature-Based Model of Semantic Memory; 28 The Functional Anatomy of Reading; 29 The Neurocognitive Basis of Developmental Dyslexia; 30 Detecting Language Activations with Functional Magnetic Resonance Imaging; PART 2 IMAGING NEUROSCIENCE-THEORY AND ANALYSIS; 31 Experimental Design and Statistical Parametric Mapping; SECTION 1 COMPUTATIONAL NEUROANATOMY 32 Rigid Body Registration 33 Spatial Normalisation Using Basis Functions; 34 High-Dimensional Image Warping; 35 Image Segmentation; 36 Morphometry; SECTION 2 MODELLING; 37 The General Linear Model; 38 Contrasts and Classical Inference; 39 Variance Components; 40 Analysis of fMRI Time Series; 41 Haemodynamic Modelling; 42 Random-Effects Analysis; 43 Hierarchical Models; SECTION 3 INFERENCE; 44 Introduction to Random Field Theory; 45 Developments in Random Field Theory; 46 Nonparametric Permutation Tests for Functional Neuroimaging; 47 Classical and Bayesian Inference SECTION 4 FUNCTIONAL INTEGRATION 48 Functional Integration in the Brain; 49 Functional Connectivity; 50 Effective Connectivity; 51 Volterra Kernels and Effective Connectivity; 52 Dynamic Causal Modelling; 53 Mathematical Appendix; 54 Mapping Brain Mappers: An Ethnographic Coda

---

Sommario/riassunto

This updated second edition provides the state of the art perspective of the theory, practice and application of modern non-invasive imaging methods employed in exploring the structural and functional architecture of the normal and diseased human brain. Like the successful first edition, it is written by members of the Functional Imaging Laboratory - the Wellcome Trust funded London lab that has contributed much to the development of brain imaging methods and their application in the last decade. This book should excite and intrigue anyone interested in the new facts about the brain gained fro

---