1.	Record Nr.	UNINA9910483088703321
	Titolo	Brain Informatics : International Conference, BI 2010, Toronto, Canada, August 28-30, 2010, Proceedings / / edited by Yiyu Yao, Ron Sun, Tomaso Poggio, Jiming Liu, Ning Zhong, Jimmy Huang
	Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2010
	ISBN	1-280-38848-X 9786613566409 3-642-15314-3
	Edizione	[1st ed. 2010.]
	Descrizione fisica	1 online resource (XVI, 440 p. 162 illus.)
	Collana	Lecture Notes in Artificial Intelligence, , 2945-9141 ; ; 6334
	Altri autori (Persone)	YaoYiyu
	Disciplina	153
	Soggetti	Database management Artificial intelligence Pattern recognition systems Application software Computer vision User interfaces (Computer systems) Human-computer interaction Database Management Artificial Intelligence Automated Pattern Recognition Computer and Information Systems Applications Computer Vision User Interfaces and Human Computer Interaction
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Bibliographic Level Mode of Issuance: Monograph
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Keynote Talks -- Fractionating the Rational Brain -- Cognitive Informatics and Denotational Mathematical Means for Brain Informatics -- Cognitive Computing -- An Adaptive Model for Dynamics of Desiring and Feeling Based on Hebbian Learning -- Modelling the Emergence of Group Decisions Based on Mirroring and Somatic Marking -- Rank-Score Characteristics (RSC) Function and Cognitive Diversity --

Cognitive Effort for Multi-agent Systems -- Behavioural Abstraction of Agent Models Addressing Mutual Interaction of Cognitive and Affective Processes -- Data Brain and Analysis -- The Effect of the Normalization Strategy on Voxel-Based Analysis of DTI Images: A Pattern Recognition Based Assessment -- Single Trial Classification of EEG and Peripheral Physiological Signals for Recognition of Emotions Induced by Music Videos -- Brain Signal Recognition and Conversion towards Symbiosis with Ambulatory Humanoids -- Feature Rating by Random Subspaces for Functional Brain Mapping -- Recurrence Plots for Identifying Memory Components in Single-Trial EEGs -- Comparing EEG/ERP-Like and fMRI-Like Techniques for Reading Machine Thoughts -- Improving Individual Identification in Security Check with an EEG Based Biometric Solution -- Neuronal Modeling and Brain Modeling -- Segmentation of 3D Brain Structures Using the Bayesian Generalized Fast Marching Method -- Domain-Specific Modeling as a Pragmatic Approach to Neuronal Model Descriptions -- Guessing What's on Your Mind: Using the N400 in Brain Computer Interfaces -- A Brain Data Integration Model Based on Multiple Ontology and Semantic Similarity -- Perception and Information Processing -- How Does Repetition of Signals Increase Precision of Numerical Judgment? -- Sparse Regression Models of Pain Perception -- A Study of Mozart Effect on Arousal, Mood, andAttentional Blink -- Learning -- Attentional Disengage from Test-Related Pictures in Test-Anxious Students: Evidence from Event-Related Potentials -- Concept Learning in Text Comprehension -- A Qualitative Approach of Learning in Parkinson's Disease -- Cognition-Inspired Applications -- Modelling Caregiving Interactions during Stress -- Computational Modeling and Analysis of Therapeutical Interventions for Depression -- A Time Series Based Method for Analyzing and Predicting Personalized Medical Data -- Language Analytics for Assessing Brain Health: Cognitive Impairment, Depression and Pre-symptomatic Alzheimer's Disease -- The Effect of Sequence Complexity on the Construction of Protein-Protein Interaction Networks -- Data Fusion and Feature Selection for Alzheimer's Diagnosis -- A Cognitive Architecture Based on Neuroscience for the Control of Virtual 3D Human Creatures -- Towards Inexpensive BCI Control for Wheelchair Navigation in the Enabled Environment – A Hardware Survey -- Expression Recognition Methods Based on Feature Fusion -- Investigation on Human Characteristics of Japanese Katakana Recognition by Active Touch -- WICI Perspectives on Brain Informatics -- Towards Systematic Human Brain Data Management Using a Data-Brain Based GLS-BI System -- The Role of the Parahippocampal Cortex in Memory Encoding and Retrieval: An fMRI Study -- Brain Activation and Deactivation in Human Inductive Reasoning: An fMRI Study -- Clustering of fMRI Data Using Affinity Propagation -- Interaction between Visual Attention and Goal Control for Speeding Up Human Heuristic Search -- The Role of Posterior Parietal Cortex in Problem Representation -- Basic Level Advantage and Its Switching during Information Retrieval: An fMRI Study.

| Sommario/riassunto | This volume contains the papers selected for presentation at The 2010 Int- national Conference on Brain Informatics (BI 2010) held at York University, Toronto, Canada, during August 28-30, 2010. It was organized by the Web - telligenceConsortium(WIC), theIEEEComputationalIntelligenceSocietyTask Force on Brain Informatics (IEEE-CIS TF-BI), and York University. The c- ference washeld jointly with the 2010InternationalConference on Active Media Technology (AMT 2010). Brain informatics (BI) hasemergedasaninterdisciplinaryresearch'eld that focuses on studying the mechanisms underlying the human information proce- ing system |

(HIPS). It investigates the essential functions of the brain, ranging from perception to thinking, and encompassing such areas as multi-perception, attention, memory, language, computation, heuristic search, reasoning, pl- ning, decision-making, problem-solving, learning, discovery, and creativity. The goal of BI is to develop and demonstrate a systematic approach to achieving an integrated understanding of both macroscopic and microscopic-level working principles of the brain, by means of experimental, computational, and cognitive neuroscience studies, as well as utilizing advanced Web intelligence (WI)-centric information technologies. BI represents a potentially revolutionary shift in the way that research is undertaken. It attempts to capture new forms of colla- rative and interdisciplinary work. In this vision, new kinds of BI methods and global research communities will emerge, through infrastructure on the wisdom Web and knowledge grids that enable high-speed and distributed, large-scale analysis and computations, and radically new ways of sharing data/knowledge.

TheBrainInformaticsConferencesstartedwiththeFirstWICIInternational Workshop on Web Intelligence meets Brain Informatics (WImBI 2006), held at Beijing,China,December15-16,2006.