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Altri autori (Persone)	MeleFrancesco
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Nota di contenuto	Basic Models in Visual Sciences -- Physiology of Simple Photoreceptors in the Abdominal Ganglion of Onchidium -- Diffuse Nerve Net of Hydra Revealed by NADPH-Diaphorase Histochemical Labeling -- On Global Geometry of Image on Eye’s Back -- Cortical Mechanism of Vision -- Independent Encoding of Position and Orientation by Population Responses in Primary Visual Cortex -- A Neural Model for Attentional Modulation of Lateral Interactions in the Visual Cortex -- Testing Viewpoint Invariance in the Neural Representation of Faces: An MEG Study -- Modeling Visual Information Processing in Brain: A Computer

Vision Point of View and Approach -- Color Processing in Natural Vision -- Higher Order Color Mechanisms for Image Segmentation -- How Does the Brain Arrive at a Color Constant Descriptor? -- Temporal Characteristics of Artificial Retina Based on Bacteriorhodopsin and Its Variants -- Action Oriented Vision -- Vision and Action in the Language-Ready Brain: From Mirror Neurons to SemRep -- A Neural Network Model for a View Independent Extraction of Reach-to-Grasp Action Features -- Neuromimetic Indicators for Visual Perception of Motion -- Reversal of “Cubic” and “Cylindric” Figures -- Visual Recognition and Attentive Modulation -- Different Binding Strategies for the Different Stages of Visual Recognition -- The Bayesian Draughtsman: A Model for Visuomotor Coordination in Drawing -- Independent Component Analysis of Layer Optical Flow and Its Application -- A Self-organizing Approach to Detection of Moving Patterns for Real-Time Applications -- Biometric Recognition -- Recognition of Human Faces: From Biological to Artificial Vision -- Incremental Subspace Learning for Cognitive Visual Processes -- Real–Time Robot Manipulation Using Mouth Gestures in Facial Video Sequences -- ImageSegmentation and Recognition -- A Variational Bayes Approach to Image Segmentation -- Watershed Segmentation Via Case-Based Reasoning -- Digital Removal of Blotches with Variable Semi-transparency Using Visibility Laws -- Classification with Positive and Negative Equivalence Constraints: Theory, Computation and Human Experiments -- A Graph-Based Clustering Method and Its Applications -- Neural Object Recognition by Hierarchical Learning and Extraction of Essential Shapes -- Disparity Calculation and Noise Analysis -- Increasing Efficiency in Disparity Calculation -- Patterns of Binocular Disparity for a Fixating Observer -- 3D Reconstruction and Mapping from Stereo Pairs with Geometrical Rectification -- Noise Analysis for Depth Estimation -- Signal Identification in Neural Models -- Stimulus-Response Curves in Sensory Neurons: How to Find the Stimulus Measurable with the Highest Precision -- Molecular Mechanism of Glutamate-Triggered Brain Glucose Metabolism: A Parametric Model from FDG PET-Scans -- Steady-State Properties of Coding of Odor Intensity in Olfactory Sensory Neurons -- Input Identification in the Ornstein-Uhlenbeck Neuronal Model with Signal Dependent Noise -- Numerical Results on the Hodgkin-Huxley Neural Network: Spikes Annihilation -- Excitatory Synaptic Interaction on the Dendritic Tree -- Ghost Stochastic Resonance for a Neuron with a Pair of Periodic Inputs -- Coincidence Detector Properties of Small Networks of Interneurons -- Computing the Maximum Using Presynaptic Inhibition with Glutamate Receptors -- Bounds of the Ability to Destroy Precise Coincidences by Spike Dithering -- Natural and Artificial Representation Issues in Artificial Intelligence -- Non-invasive Brain-Actuated Interaction -- Decomposition Approach to Solve Dial-a-Ride Problems Using Ant Computing andConstraint Programming -- Logic as Energy: A SAT-Based Approach -- Towards a Formal Approach to Generative Design: An Assistant System for the Creation of Artefact Models -- Using Software Agent Negotiation for Service Selection -- A Genetic Algorithm for the Quadratic Multiple Knapsack Problem -- The Application of Neural Networks in Classification of Epilepsy Using EEG Signals -- Meaning, Interaction and Emotion -- Moving Creative Words -- Applying Neural Networks to Knowledge Representation and Determination of Its Meaning -- New Frameworks to Boost Feature Selection Algorithms in Emotion Detection for Improved Human-Computer Interaction -- The Significance of Empty Speech Pauses: Cognitive and Algorithmic Issues -- Human Robot Interactions: Towards the Implementation of Adaptive Strategies for Robust

Communication -- Robot Navigation and Control -- A Neurosymbolic Hybrid Approach for Landmark Recognition and Robot Localization -- A Robotic Architecture with Innate Releasing Mechanism -- An Application of Vision Systems to the Path Planning of Industrial Robots -- Tracking Trajectories with a Robotic Manipulator with Singularities -- Motion Planning for Wheeled Mobile Robots Based on Singularity Criteria.

Sommario/riassunto

This book constitutes the refereed proceedings of the Second International Symposium on Brain, Vision and Artificial Intelligence, BVAI 2007. Coverage includes: basic models in visual sciences, cortical mechanism of vision, color processing in natural vision, action oriented vision, visual recognition and attentive modulation, biometric recognition, image segmentation and recognition, disparity calculation and noise analysis, meaning-interaction-emotion, and robot navigation.