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Nota di contenuto	Computational Neuroscience -- On the Use of the Computational Paradigm in Neurophysiology and Cognitive Science -- Modules, Layers, Hierarchies, and Loops Where Artificial Intelligence Meets Ethology and Neuroscience -- In Context of Action Selection -- A Unified Perspective on Explaining Dynamics by Anticipatory State Properties -- A Novel Intrinsic Wave Phenomenon in Low Excitable Biological Media -- Conceptual Idea of Natural Mechanisms of Recognition, Purposeful Thinking and Potential of Its Technical Application -- Simulation of Orientation Contrast Sensitive Cell Behavior in TiViPE -- Formulation and Validation of a Method for Classifying Neurons from Multielectrode Recordings -- Gap-Junctions Promote Synchrony in a Network of Inhibitory Interneurons in the Presence of Heterogeneities and Noise -- A Conceptual Model of Amphibian's Tectum Opticum with Probabilistic

Coded Outputs -- Realistic Stimulation Through Advanced Dynamic-Clamp Protocols -- Interacting Slow and Fast Dynamics in Precise Spiking-Bursting Neurons -- An Integral Model of Spreading Depression: From Neuron Channels to Field Potentials -- Separation of Extracellular Spikes: When Wavelet Based Methods Outperform the Principle Component Analysis -- Structural Statistical Properties of the Connectivity Could Underlie the Difference in Activity Propagation Velocities in Visual and Olfactory Cortices -- Rules and Roles of Dendritic Spikes in CA1 Pyramidal Cells: A Computational Study -- Slow Conductances Encode Stimulus History into Spike Shapes -- Comparison of Plasticity of Self-optimizing Neural Networks and Natural Neural Networks -- Evaluation of Neuronal Firing Densities via Simulation of a Jump-Diffusion Process -- Gaussian Processes and Neuronal Modeling -- On the Moments of Firing Numbers in Diffusion Neuronal Models with Refractoriness -- Fluctuation Dynamics in Electroencephalogram Time Series -- Modelling of Dysfunctions in the Neuronal Control of the Lower Urinary Tract -- Coding Strategies in Early Stages of the Somatosensory System -- Auditory Nerve Encoding of High-Frequency Spectral Information -- Multielectrode Analysis of Information Flow Through Cat Primary Visual Cortex -- Bioinspired Computation -- Towards Evolutionary DNA Computing -- A Linear Solution of Subset Sum Problem by Using Membrane Creation -- A Study of the Robustness of the EGFR Signalling Cascade Using Continuous Membrane Systems -- A Tool for Implementing and Exploring SBM Models: Universal 1D Invertible Cellular Automata -- Network of Evolutionary Processors with Splicing Rules -- Network of Evolutionary Processors with Splicing Rules and Forbidding Context -- A Multiplexed Current Source Portable Stimulator Architecture for a Visual Cortical Neuroprosthesis -- An Augmented Reality Visual Prosthesis for People Affected by Tunneling Vision -- Eye Tracking in Coloured Image Scenes Represented by Ambisonic Fields of Musical Instrument Sounds -- Tasks Modelling at the Knowledge Level -- Avoidance Behavior Controlled by a Model of Vertebrate Midbrain Mechanisms -- Transition Cells and Neural Fields for Navigation and Planning -- Spatial Navigation Based on Novelty Mediated Autobiographical Memory -- Vision and Grasping: Humans vs. Robots -- Evolved Neural Reflex-Oscillators for Walking Machines -- A Haptic System for the Lucs Haptic Hand I -- Action-Based Cognition: How Robots with No Sensory System Orient Themselves in an Open Field Box -- A Robotics Inspired Method of Modeling Accessible Open Space to Help Blind People in the Orientation and Traveling Tasks -- A Scientific Point of View on Perceptions -- Reasoning by Assumption: Formalisation and Analysis of Human Reasoning Traces -- Aligning Reference Terminologies and Knowledge Bases in the Health Care Domain -- Predicting Mortality in the Intensive Care Using Episodes -- A Fuzzy Temporal Diagnosis Algorithm and a Hypothesis Discrimination Proposal -- Spatial Reasoning Based on Rules -- Key Aspects of the Diagen Conceptual Model for Medical Diagnosis -- Connectionist Contribution to Building Real-World Ontologies -- Self Assembling Graphs -- Knowledge Modeling for the Traffic Sign Recognition Task -- Interval-Valued Neural Multi-adjoint Logic Programs.
