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Titolo	Adaptive Processing of Sequences and Data Structures [[electronic resource] ] : International Summer School on Neural Networks, "E.R. Caianiello", Vietri sul Mare, Salerno, Italy, September 6-13, 1997, Tutorial Lectures / / edited by C.Lee Giles, Marco Gori
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Descrizione fisica	1 online resource (XIV, 438 p.)
Collana	Lecture Notes in Artificial Intelligence ; ; 1387
Disciplina	006.3/2
Soggetti	Computer architecture Computer programming Artificial intelligence Computers Microprocessors Data structures (Computer science) Computer System Implementation Programming Techniques Artificial Intelligence Computation by Abstract Devices Processor Architectures Data Structures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Recurrent neural network architectures: An overview -- Gradient based learning methods -- Diagrammatic methods for deriving and relating temporal neural network algorithms -- An introduction to learning structured information -- Neural networks for processing data structures -- The loading problem: Topics in complexity -- Learning dynamic Bayesian networks -- Probabilistic models of neuronal spike trains -- Temporal models in blind source separation -- Recursive neural networks and automata -- The neural network pushdown

automaton: Architecture, dynamics and training -- Neural dynamics with stochasticity -- Parsing the stream of time: The value of event-based segmentation in a complex real-world control problem -- Hybrid HMM/ANN systems for speech recognition: Overview and new research directions -- Predictive models for sequence modelling, application to speech and character recognition.

#### Sommario/riassunto

This book is devoted to adaptive processing of structured information similar to flexible and intelligent information processing by humans - in contrast to merely sequential processing of predominantly symbolic information within a deterministic framework. Adaptive information processing allows for a mixture of sequential and parallel processing of symbolic as well as subsymbolic information within deterministic and probabilistic frameworks. The book originates from a summer school held in September 1997 and thus is ideally suited for advanced courses on adaptive information processing and advanced learning techniques or for self-instruction. Research and design professionals active in the area of neural information processing will find it a valuable state-of-the-art survey.