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Soggetti Programming languages (Electronic computers)
Artificial intelligence
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Artificial Intelligence
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Nota di contenuto Invited Papers -- Learning and Mathematics -- Learning Finite-State Models for Machine Translation -- The Omphalos Context-Free Grammar Learning Competition -- Regular Papers -- Mutually Compatible and Incompatible Merges for the Search of the Smallest Consistent DFA -- Faster Gradient Descent Training of Hidden Markov Models, Using Individual Learning Rate Adaptation -- Learning Mild Context-Sensitiveness: Toward Understanding Children's Language Learning -- Learnability of Pregroup Grammars -- A Markovian Approach to the Induction of Regular String Distributions -- Learning Node Selecting Tree Transducer from Completely Annotated Examples -- Identifying Clusters from Positive Data -- Introducing Domain and Typing Bias in Automata Inference -- Analogical Equations in Sequences: Definition and Resolution -- Representing Languages by Learnable Rewriting Systems -- A Divide-and-Conquer Approach to

Acquire Syntactic Categories -- Grammatical Inference Using Suffix Trees -- Learning Stochastic Finite Automata -- Navigation Pattern Discovery Using Grammatical Inference -- A Corpus-Driven Context-Free Approximation of Head-Driven Phrase Structure Grammar -- Partial Learning Using Link Grammars Data -- eg-GRIDS: Context-Free Grammatical Inference from Positive Examples Using Genetic Search -- The Boisdale Algorithm – An Induction Method for a Subclass of Unification Grammar from Positive Data -- Learning Stochastic Deterministic Regular Languages -- Polynomial Time Identification of Strict Deterministic Restricted One-Counter Automata in Some Class from Positive Data -- Poster Papers -- Learning Syntax from Function Words -- Running FCRPNI in Efficient Time for Piecewise and Right Piecewise Testable Languages -- Extracting Minimum Length Document Type Definitions Is NP-Hard -- Learning Distinguishable Linear Grammars from Positive Data -- Extending Incremental Learning of Context Free Grammars in Synapse -- Identifying Left-Right Deterministic Linear Languages -- Efficient Learning of k-Reversible Context-Free Grammars from Positive Structural Examples -- An Analysis of Examples and a Search Space for PAC Learning of Simple Deterministic Languages with Membership Queries.

Sommario/riassunto	The 7th International Colloquium on Grammatical Inference (ICGI 2004) was held in the National Centre for Scientific Research "Demokritos", Athens,Greece on October 11–13, 2004. ICGI 2004 was the seventh in a series of successful biennial international conferences in the area of grammatical inference. Previous meetings were held in Essex, UK; Alicante, Spain; Montpellier, France; Ames, Iowa, USA; Lisbon, Portugal; and Amsterdam, The Netherlands. This series of conferences seeks to provide a forum for the presentation and discussion of original research papers on all aspects of grammatical inference. Grammatical inference, the study of learning grammars from data, is an established research field in artificial intelligence, dating back to the 1960s, and has been extensively addressed by researchers in automata theory, language acquisition, computational linguistics, machine learning, pattern recognition, computational learning theory and neural networks. ICGI 2004 emphasized the multidisciplinary nature of the research field and the diverse domains in which grammatical inference is being applied, such as natural language acquisition, computational biology, structural pattern recognition, information retrieval, Web mining, text processing, data compression and adaptive intelligent agents. We received 45 high-quality papers from 19 countries. The papers were - viewed by at least two – in most cases three – reviewers. In addition to the 20 full papers, 8 short papers that received positive comments from the reviewers were accepted, and they appear in a separate section of this volume. The topics of the accepted papers vary from theoretical results of learning algorithms to innovative applications of grammatical inference, and from learning several interesting classes of formal grammars to estimations of probabilistic grammars.