Record Nr. UNISA996465336603316 Parallelization in Inference Systems [[electronic resource]]: **Titolo** International Workshop, Dagstuhl Castle, Germany, December 17-18. 1990. Proceedings / / edited by Bertram Fronhöfer, Graham Wrightson Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa 1992 **ISBN** 3-540-47066-2 Edizione [1st ed. 1992.] Descrizione fisica 1 online resource (X, 378 p.) Lecture Notes in Artificial Intelligence;; 590 Collana 004/.35 Disciplina Soggetti Artificial intelligence Software engineering Architecture, Computer Computer programming Microprocessors Artificial Intelligence Software Engineering/Programming and Operating Systems Computer System Implementation Programming Techniques **Processor Architectures** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di contenuto Potentiality of parallelism in logic -- Parallel theorem provers An overview -- Parallel unification: Theory and implementations --Connectionist inference systems -- Implementing parallel rewriting --Experiments with Roo, a parallel automated deduction system -- A process algebra over the Herbrand Universe: Application to parallelism in automated deduction -- Using the Reform inference system for parallel Prolog -- Random competition: A simple, but efficient method for parallelizing inference systems -- Parallel and efficient implementation of the compartmentalized connection graph proof procedure: Resolution to unification -- Constraint satisfaction via partially parallel propagation steps -- A parallel theorem prover with

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## Sommario/riassunto

and their support by novel parallel hardware -- The adam abstract dataflow machine -- Parallel computation model for parallel prolog -- Application of connectionist models to fuzzy inference systems -- CHCL — A connectionist inference system -- Project Summaries.

This volume contains the proceedings of an international workshop on parallelism in inference systems held in Germany in December 1990. The topicof the workshop is still rather young and several papers in the book are overview articles intended to provide a first orientation toward some of the more intensively investigated subtopics. The main part of the book is a compilation of research papers on parallelization in special domains ofinference such as rewriting, automatic reasoning, logic programming, and connection ist inference. Appended to the book is a collection of short project summaries received in response to a worldwide email call. The book is intended primarily for researchers working on inference systems who are interested in parallelizing their systems.