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Soggetti	Computer science Computer science—Mathematics Data structures (Computer science) Algorithms Numerical analysis Mathematical statistics Popular Computer Science Discrete Mathematics in Computer Science Data Structures Algorithm Analysis and Problem Complexity Numeric Computing Probability and Statistics in Computer Science
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1: Evaluation and Learning -- Distinguishing Gamblers from Investors at the Blackjack Table -- MOUSE(?): A Self-teaching Algorithm that Achieved Master-Strength at Othello -- Investigation of an Adaptive Cribbage Player -- Learning a Game Strategy Using Pattern-Weights and Self-play -- 2: Search -- PDS-PN: A New Proof-Number Search Algorithm -- A Generalized Threats Search Algorithm -- Proof-Set Search -- A Comparison of Algorithms for Multi-player Games -- Selective Search in an Amazons Program -- Playing Games with Multiple Choice Systems -- The Neural MoveMap Heuristic in Chess --

Board Maps and Hill-Climbing for Opening and Middle Game Play in Shogi -- 3: Combinatorial Games/Theory -- Solitaire Clobber -- Complexity of Error-Correcting Codes Derived from Combinatorial Games -- Analysis of Composite Corridors -- 4: Opening/Endgame Databases -- New Winning and Losing Positions for 7x7 Hex -- Position-Value Representation in Opening Books -- Indefinite Sequence of Moves in Chinese Chess Endgames -- 5: Commercial Games -- ORTS: A Hack-Free RTS Game Environment -- Causal Normalization: A Methodology for Coherent Story Logic Design in Computer Role-Playing Games -- A Structure for Modern Computer Narratives -- 6: Single-Agent Search/Planning -- Tackling Post's Correspondence Problem -- Perimeter Search Performance -- Using Abstraction for Planning in Sokoban -- 7: Computer Go -- A Small Go Board Study of Metric and Dimensional Evaluation Functions -- Local Move Prediction in Go -- Evaluating Kos in a Neutral Threat Environment: Preliminary Results.

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## Sommario/riassunto

The Computers and Games (CG) series began in 1998 with the objective of showcasing new developments in artificial intelligence (AI) research that used games as the experimental test-bed. The first two CG conferences were held at Hamamatsu, Japan (1998, 2000).

Computers and Games 2002 (CG 2002) was the third event in this biennial series. The conference was held at the University of Alberta (Edmonton, Alberta, Canada), July 25–27, 2002. The program consisted of the main conference featuring refereed papers and keynote speakers, as well as several side events including the Games Informatics Workshop, the Agents in Computer Games Workshop, the Trading Agents Competition, and the North American Computer Go Championship. CG 2002 attracted 110 participants from over a dozen countries. Part of the success of the conference was that it was co-

located with the National Conference of the American Association for Artificial Intelligence (AAAI), which began in Edmonton just as CG 2002 ended. The CG 2002 program had 27 refereed paper presentations. The papers ranged over a wide variety of AI-related topics including search, knowledge, learning, planning, and combinatorial game theory. Research test-beds included one-player games (blackjack, sliding-tile puzzles, Sokoban), two-player games (Amazons, awari, chess, Chinese chess, clobber, Go, Hex, Lines of Action, O-ello, shogi), multi-player games (Chinese checkers, cribbage, Diplomacy, hearts, spades), commercial games (role-playing games, real-time strategy games), and novel applications (Post's Correspondence Problem).

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