

Table of Contents

Part 1: Evaluation and Learning

Distinguishing Gamblers from Investors at the Blackjack Table	1
<i>David Wolfe</i>	
<i>MOUSE</i> (μ): A Self-teaching Algorithm that Achieved Master-Strength at Othello	11
<i>Konstantinos Tournavitis</i>	
Investigation of an Adaptive Cribbage Player	29
<i>Graham Kendall and Stephen Shaw</i>	
Learning a Game Strategy Using Pattern-Weights and Self-play	42
<i>Ari Shapiro, Gil Fuchs, and Robert Levinson</i>	

Part 2: Search

PDS-PN: A New Proof-Number Search Algorithm	61
<i>Mark H.M. Winands, Jos W.H.M. Uiterwijk, and Jaap van den Herik</i>	
A Generalized Threats Search Algorithm	75
<i>Tristan Cazenave</i>	
Proof-Set Search	88
<i>Martin Müller</i>	
A Comparison of Algorithms for Multi-player Games	108
<i>Nathan Sturtevant</i>	
Selective Search in an Amazons Program	123
<i>Henry Avetisyan and Richard J. Lorentz</i>	
Playing Games with Multiple Choice Systems	142
<i>Ingo Althöfer and Raymond Georg Snatzke</i>	
The Neural MoveMap Heuristic in Chess	154
<i>Levente Kocsis, Jos W.H.M. Uiterwijk, Eric Postma, and Jaap van den Herik</i>	
Board Maps and Hill-Climbing for Opening and Middle Game Play in Shogi	171
<i>Reijer Grimbergen and Jeff Rollason</i>	

Part 3: Combinatorial Games/Theory

Solitaire Clobber	188
<i>Erik D. Demaine, Martin L. Demaine, and Rudolf Fleischer</i>	
Complexity of Error-Correcting Codes Derived from Combinatorial Games	201
<i>Aviezri S. Fraenkel and Ofer Rahat</i>	
Analysis of Composite Corridors	213
<i>Teigo Nakamura and Elwyn Berlekamp</i>	

Part 4: Opening/Endgame Databases

New Winning and Losing Positions for 7×7 Hex	230
<i>Jing Yang, Simon Liao, and Mirosław Pawlak</i>	
Position-Value Representation in Opening Books	249
<i>Thomas R. Lincke</i>	
Indefinite Sequence of Moves in Chinese Chess Endgames	264
<i>Haw-ren Fang, Tsan-sheng Hsu, and Shun-chin Hsu</i>	

Part 5: Commercial Games

ORTS: A Hack-Free RTS Game Environment	280
<i>Michael Buro</i>	
Causal Normalization: A Methodology for Coherent Story Logic Design in Computer Role-Playing Games	292
<i>Craig A. Lindley and Mirjam Eladhari</i>	
A Structure for Modern Computer Narratives	308
<i>Clark Verbrugge</i>	

Part 6: Single-Agent Search/Planning

Tackling Post's Correspondence Problem	326
<i>Ling Zhao</i>	
Perimeter Search Performance	345
<i>Carlos Linares López and Andreas Junghanns</i>	
Using Abstraction for Planning in Sokoban	360
<i>Adi Botea, Martin Müller, and Jonathan Schaeffer</i>	

Part 7: Computer Go

A Small Go Board Study of Metric and Dimensional Evaluation Functions	376
<i>Bruno Bouzy</i>	
Local Move Prediction in Go	393
<i>Erik van der Werf, Jos W.H.M. Uiterwijk, Eric Postma, and Jaap van den Herik</i>	
Evaluating Kos in a Neutral Threat Environment: Preliminary Results . . .	413
<i>William L. Spight</i>	
Author Index	429
Game Index	431

Computers and Games

Third International Conference, CG 2002, Edmonton,

Canada, July 25-27, 2002, Revised Papers

Schaeffer, J.; Müller, M.; Björnsson, Y. (Eds.)

2003, XII, 436 p., Softcover

ISBN: 978-3-540-20545-6