Introduction

Lamarckian Evolution, The Baldwin Effect and Function Optimization

Control of Parallel Population Dynamics by Social-Like Behavior of GA-Individuals

Studying Genotype-Phenotype Interactions: A Model of the Evolution of the Cell Regulation Network

A Diploid Genetic Algorithm for Preserving Population Diversity - Pseudo-Meiosis GA

Co-evolutionary Constraint Satisfaction

Towards a Theory of 'Evolution Strategies': Results for (1+,[lambda])-Strategies on (Nearly) Arbitrary Fitness Functions

Advanced Correlation Analysis of Operators for the Traveling Salesman Problem

Genetic Algorithms with Multi-parent Recombination

On the Mean Convergence Time of Evolutionary Algorithms without Selection and Mutation

Estimating the Heritability by Decomposing the Genetic Variance

Analyzing Hyperplane Synthesis in Genetic Algorithms Using Clustered Schemata

Convergence Models of Genetic Algorithm Selection Schemes

Optimal Population Size under Constant Computation Cost

An Evolutionary Algorithm for Integer Programming

Long Path Problems

Evolution Strategies on Noisy Functions: How to Improve Convergence Properties

Selection Schemes with Spatial Isolation for Genetic Optimization

A Modified Edge Recombination Operator for the Travelling Salesman Problem

Step-size Adaptation Based on Non-local Use of Selection Information

Strategy Adaptation by Competing Subpopulations

Controlling Crossover through Inductive Learning

Derivative Operators for Preference Predicate Evolution

Adaptive Crossover Using Automata

Controlling Dynamics of GA through Filtered Evaluation Function

A Cooperative Coevolutionary Approach to Function Optimization

A Fuzzy Classifier System Using the Pittsburgh Approach

Q-Learning in Evolutionary Rule-based Systems

On the Complexity of Learning in Classifier Systems

A Representation Scheme to Perform Program Induction in a Canonical Genetic Algorithm

Genetic Programming with Local Hill-Climbing

Dynamic Training Subset Selection for Supervised Learning in Genetic Programming

Genotype-Phenotype-Mapping and Neutral Variation - A Case Study in Genetic Programming

Genetic L-System Programming

A Genetic Algorithm Discovers Particle-Based Computation in Cellular Automata

Simulation of Exaptive Behaviour

Artificial Spacing Patterns in a Network of Interacting Celloids
Diffuse Pattern Learning with Fuzzy ARTMAP and PASS  p. 376
Different Learning Algorithms for Neural Networks - A Comparative Study  p. 386
Program Search with a Hierarchical Variable Length Representation: Genetic Programming, Simulated Annealing and Hill Climbing  p. 397
Problem-Independent Parallel Simulated Annealing Using Selection and Migration  p. 408
Parallel Optimization of Evolutionary Algorithms  p. 418
Parallel Simulated Annealing and Genetic Algorithms: A Space of Hybrid Methods  p. 428
ENZO-M - A Hybrid Approach for Optimizing Neural Networks by Evolution and Learning  p. 440

Genetic Lander: An Experiment in Accurate Neuro-Genetic Control  p. 452
Effects of Occam's Razor in Evolving Sigma-Pi Neural Nets  p. 462
Designing Neural Networks by Adaptively Building Blocks in Cascades  p. 472
Hybrid Adaptive Heuristic Critic Architectures for Learning in Mazes with Continuous Search Spaces  p. 482
Mutation Operators for Structure Evolution of Neural Networks  p. 492
Implementation of Standard Genetic Algorithm on MIMD Machines  p. 504
Loosely Coupled Distributed Genetic Algorithms  p. 514
Applying Evolvable Hardware to Autonomous Agents  p. 524
Genetic Algorithm Based Design Optimization of CMOS VLSI Circuits  p. 546
Improving Evolutionary Timetabling with Delta Evaluation and Directed Mutation  p. 556
Genetic Improvement of Railway Timetables  p. 566
Using a Genetic Algorithm to Search for the Representational Bias of a Collective Reinforcement Learner  p. 576
An Evolutionary Algorithm for the Routing of Multi-Chip Modules  p. 588
Soft Selection in D-optimal Designs  p. 608
The Weighted Graph Bi-Partitioning Problem: A Look at GA Performance  p. 617
RPL2: A Language and Parallel Framework for Evolutionary Computing  p. 628
Subject Index  p. 639

Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.