Contents

Finding Optimal Discretization Orders for Molecular Distance Geometry by Answer Set Programming ......................... 1
Douglas Gonçalves, Jacques Nicolas, Antonio Mucherino and Carlile Lavor

Estimation of Edge Infection Probabilities in the Inverse Infection Problem ................................................. 17
András Bôta, Miklós Krész and András Pluhár

On a Quantum Algorithm for the Resolution of Systems of Linear Equations .............................................. 37
J.M. Sellier and I. Dimov

Synthesis of Self-Adaptive Supervisors of Multi-Task Real-Time Object-Oriented Systems Using Developmental Genetic Programming ................................................................. 55
Krzysztof Sapiecha, Leszek Ciopiński and Stanisław Deniziak

Direct Shooting Method for Optimal Control of the Highly Nonlinear Differential-Algebraic Systems ................ 75
Paweł Drąg and Krystyn Styczeń

Paweł Drąg, Krystyn Styczeń, Marlena Kwiatkowska and Andrzej Szczurek

InterCriteria Analysis of ACO and GA Hybrid Algorithms ............ 107
Olympia Roeva, Stefka Fidanova and Marcin Paprzycki
A Two-Stage Look-Ahead Heuristic for Packing Spheres into a Three-Dimensional Bin of Minimum Length .................. 127
Hakim Akeb

Handling Lower Bound and Hill-Climbing Strategies for Sphere Packing Problems ............................................. 145
Mhand Hifi and Labib Yousef

Multi-Objective Meta-Evolution Method for Large-Scale Optimization Problems .............................................. 165
Piotr Przystałka and Andrzej Katunin

Dispersive Flies Optimisation and Medical Imaging .................. 183
Mohammad Majid al-Rifaie and Ahmed Aber

An Efficient Solution of the Resource Constrained Project Scheduling Problem Based on an Adaptation of the Developmental Genetic Programming .................................................. 205
Grzegorz Pawiński and Krzysztof Sapiecha

Bayesian-Based Approach to Application of the Genetic Algorithm to Localize the Abrupt Atmospheric Contamination Source .......... 225
A. Wawrzynczak, M. Jaroszynski and M. Borysiewicz