Genetic and Evolutionary Computation Conference 2009
And the Winners are…

Ant Colony Optimization and Swarm Intelligence
Parallel Shared Memory Strategies for Ant-Based Optimization Algorithms
Thang N Bui, ThanhVu Nguyen, Joseph R Rizzo Jr.

Artificial Life, Evolutionary Robotics, Adaptive Behavior, Evolvable Hardware
How Novelty Search Escapes the Deceptive Trap of Learning to Learn
Sebastian Risi, Sandy D Vanderbleek, Charles E Hughes, Kenneth O Stanley

Bioinformatics and Computational Biology
Modeling Evolutionary Fitness for DNA Motif Discovery
Sven Rahmann, Tobias Marschall, Frank Behler, Oliver Kramer

Combinatorial Optimization and Metaheuristics
Fixed-Parameter Evolutionary Algorithms and the Vertex Cover Problem
Stefan Kratsch, Frank Neumann

Estimation of Distribution Algorithms
Hisashi Handa

Approximating the Search Distribution to the Selection Distribution in EDAs
S. Ivvan Valdez-Peña, Arturo Hernández-Aguirre, Salvador Botello-Rionda Tony E Lewis, George D Magoulas

Evolution Strategies and Evolutionary Programming
Efficient Natural Evolution Strategies
Yi Sun, Daan Wierstra, Tom Schaul, Juergen Schmidhuber

Evolutionary Multiobjective Optimization
Multiplicative Approximations and the Hypervolume Indicator
Tobias Friedrich, Christian Horoba, Frank Neumann

Generative and Developmental Systems
The Sensitivity of HyperNEAT to Different Geometric Representations of a Problem
Jeff Clune, Charles Oftia, Robert T Pennock
And the Winners are…

Genetic Algorithms

Tunneling Between Optima: Partition Crossover for the Traveling Salesman Problem
Darrell Whitley, Adele Howe, Doug Hains

Genetic Programming

A Genetic Programming Approach to Automated Software Repair
Stephanie Forrest, ThanhVu Nguyen, Westley Weimer, Claire Le Goues

Genetics-Based Machine Learning

Learning Sensorimotor Control Structures with XCSF
Martin V. Butz, Gerulf K.M. Pedersen, Patrick O. Stalph

New Entropy Model for Extraction of Structural Information from XCS Population
WonKyung Park, Jae C. Oh

Parallel Evolutionary Systems

Strategies to Minimise the Total Run Time of Cyclic Graph Based Genetic Programming with GPUs
Tony E Lewis, George D Magoulas

Real World Application

Optimizing Low-Discrepancy Sequences with an Evolutionary Algorithm
François-Michel De Rainville, Christian Gagné, Olivier Teytaud, Denis Laurendeau

Search-Based Software Engineering

Software Project Planning for Robustness and Completion Time in the Presence of Uncertainty using Multi Objective Search Based Software Engineering
Stefan Gueorguiev, Mark Harman, Giuliano Antoniol

Theory

Dynamic Evolutionary Optimisation: An Analysis of Frequency and Magnitude of Change
Philipp Rohlfshagen, Per Kristian Lehre, Xin Yao