

## GECCO 2009 Best Paper Award WINNERS

### **Ant Colony Optimization, Swarm Intelligence, and Artificial Immune Systems**

*Evolutionary Swarm Design of Architectural Idea Models;*  
Sebastian von Mammen (University of Calgary)  
Christian Jacob (University of Calgary)

### **Artificial Life, Evolutionary Robotics, Adaptive Behavior, Evolvable Hardware**

*Modular Neuroevolution for Multilegged Locomotion;*  
Viñod K. Valsalam (The University of Texas at Austin)  
Risto Miikkulainen (The University of Texas at Austin)

### **Bioinformatics and Computational Biology**

*Structure and Parameter Estimation for Cell Systems Biology Models;*  
Francisco J. Romero-Campero (University of Nottingham)  
Hongqing Cao (University of Nottingham)  
Miguel Camara (University of Nottingham),  
Natalio Krasnogor (University of Nottingham)

### **Coevolution**

*An Empirical Comparison of Evolution and Coevolution for Designing Artificial Neural Network Game Players.;*  
Min Shi (Norwegian University of Science and Technology)

### **Estimation of Distribution Algorithms**

*From Mating Pool Distributions to Model Overfitting ;*  
Claudio F Lima (University of Algarve)  
Fernando G. Lobo (University of Algarve)  
Martin Pelikan (University of Missouri at St Louis)

### **Evolution Strategies, Evolutionary Programming**

*Aiming for a Theoretically tractable CSA variant by Means of Empirical Investigations;*  
Jens Jägersküpper (TU Dortmund)  
Mike Preuss (TU Dortmund)

### **Evolutionary Combinatorial Optimization**

*Crossover Can Provably be Useful in Evolutionary Computation;*  
Benjamin Doerr (Max Planck Institut für Informatik)  
Edda Happ (Max Planck Institut für Informatik)  
Christian Klein (Max Planck Institut für Informatik)

### **Evolutionary Multiobjective Optimization**

*A New Memetic Strategy for the Numerical Treatment of Multi-Objective Optimization Problems;*  
Oliver Schuetze (CINVESTAV-IPN)  
Gustavo Sanchez (Simon Bolivar University)  
Carlos Coello Coello (CINVESTAV-IPN)

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### Formal Theory

*Precision, Local Search and Unimodal Functions;*

Martin Dietzfelbinger (Tecnische Universität Ilmenau)

Jonathan E. Rowe (University of Birmingham)

Ingo Wegener (Technische Universität Dortmund)

Phillip Woelfel (University of Calgary)

### Generative and Developmental Systems

*Generative Encoding for Multiagent Systems;*

David B. D'Ambrosio (University of Central Florida)

Kenneth O. Stanley (University of Central Florida).

### Genetic Algorithms

*Theoretical Analysis of Diversity Mechanisms for Global Exploration;*

Tobias Friedrich (Max Planck Institut für Informatik)

Pietro S. Oliveto (University of Birmingham)

Dirk Sudholt (TU Dortmund)

Carsten Witt (TU Dortmund)

### Genetic Programming

*Parsimony Pressure Made Easy;*

Riccardo Poli (University of Essex)  
Nicholas Freitag McPhee (University of Minnesota, Morris)

### Genetics-Based Machine Learning ad Learning Classifier Systems

*Context-Dependent Predictions and Cognitive Arm Control with XCSF;*

Martin V. Butz (University of Würzburg)

Oliver Herbst (University of Würzburg)

### Real World Applications

*Genetic Algorithms for Mentor-Assisted Evaluation Function Optimization;*

Omid David Tabibi (Bar-Ilan University)

Moshe Koppel (Bar-Ilan University)

Nathan S. Netanyahu (Bar-Ilan University)

### Search-Based Software Engineering

*Searching for Liveness Property Violations in Concurrent Systems with ACO;*

Francisco Chicano (University of Málaga)

Enrique Alba (University of Málaga)