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Pedro A. Castillo · Juan Luis Jiménez Laredo ·
Francisco Fernández de Vega (Eds.)

Applications of Evolutionary Computation

23rd European Conference, EvoApplications 2020
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Seville, Spain, April 15–17, 2020
Proceedings

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Preface

This volume contains the proceedings of the International Conference on the Applications of Evolutionary Computation (EvoApplications 2020). The conference is part of EvoStar, the leading event on bio-inspired computation in Europe, and was held in Sevilla, Spain, during April 15–17, 2020.

EvoApplications, formerly known as EvoWorkshops, aims to bring together high-quality research with a focus on applied domains of bio-inspired computing. At the same time, under the EvoStar umbrella, EuroGP focused on the technique of genetic programming, EvoCOP targeted evolutionary computation in combinatorial optimization, and EvoMUSART was dedicated to evolved and bio-inspired music, sound, art, and design. The proceedings for all of these co-located events are available in the LNCS series.

EvoApplications received this year 62 high-quality submissions distributed among the main session Applications of Evolutionary Computation and six additional special sessions chaired by leading experts on the different areas: applications of bio-inspired techniques on social networks, evolutionary computation in digital healthcare and personalized medicine, soft-computing applied to games, applications of deep-bioinspired algorithms, parallel and distributed systems, and evolutionary machine learning. We selected 33 of these papers for full oral presentation, while a further 11 works were presented in short oral presentation and as posters. All contributions, regardless of the presentation format, appear as full papers in this volume (LNCS 12104).

Obviously, an event of this kind would not be possible without the contribution of a large number of people.

- We express our gratitude to the authors for submitting their works and to the members of the Program Committee for devoting a selfless effort in the review process.
- We would also like to thank the local organizing team led by Francisco Fernández de Vega (University of Extremadura, Spain) and Federico Divina (University Pablo de Olavide, Spain) for providing such an exciting venue and arranging a set of additional activities for delegates.
- José Francisco Chicano García (University of Málaga, Spain) for managing and maintaining the EvoStar website and João Correia (University of Coimbra, Portugal) for handling publicity: both did an impressive job.
- We credit the invited keynote speakers, José Antonio Lozano (University of the Basque Country, Spain) and Roberto Serra (University degli Studi di Modena e Reggio Emilia, Italy), for their fascinating and inspiring presentations.
- We would like to express our gratitude to the Steering Committee of EvoApplications for helping with the organization of the conference.

- We are grateful to the support provided by SPECIES, the Society for the Promotion of Evolutionary Computation in Europe and its Surroundings, and its individual members Marc Schoenauer (President), Anna I. Esparcia-Alcázar (Secretary and Vice-President), and Wolfgang Banzhaf (Treasurer), for the coordination and financial administration.

Finally, we express our continued appreciation to Anna I. Esparcia-Alcázar, from Universitat Politècnica de València, Spain, whose considerable efforts in managing and coordinating EvoStar helped towards building a unique, vibrant, and friendly atmosphere.

February 2020

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Contents

Applications of Evolutionary Computation

A Local Search for Numerical Optimisation Based on Covariance Matrix Diagonalisation.	3
<i>Ferrante Neri and Shahin Rostami</i>	
EvoCluster: An Open-Source Nature-Inspired Optimization Clustering Framework in Python	20
<i>Raneem Qaddoura, Hossam Faris, Ibrahim Aljarah, and Pedro A. Castillo</i>	
Optimizing the Hyperparameters of a Mixed Integer Linear Programming Solver to Speed up Electric Vehicle Charging Control.	37
<i>Takahiro Ishihara and Steffen Limmer</i>	
Automatic Rule Extraction from Access Rules Using Genetic Programming	54
<i>Paloma de las Cuevas, Pablo García-Sánchez, Zaineb Chelly Dagdia, María-Isabel García-Arenas, and Juan Julián Merelo Guervós</i>	
Search Trajectory Networks of Population-Based Algorithms in Continuous Spaces	70
<i>Gabriela Ochoa, Katherine M. Malan, and Christian Blum</i>	
Evolving-Controllers Versus Learning-Controllers for Morphologically Evolvable Robots	86
<i>Karine Miras, Matteo De Carlo, Sayfeddine Akhatou, and A. E. Eiben</i>	
Simulation-Driven Multi-objective Evolution for Traffic Light Optimization	100
<i>Alessandro Cacco and Giovanni Iacca</i>	
Automatic Generation of Adversarial Metamorphic Malware Using MAP-Elites.	117
<i>Kehinde O. Babaagba, Zhiyuan Tan, and Emma Hart</i>	
EvoDynamic: A Framework for the Evolution of Generally Represented Dynamical Systems and Its Application to Criticality.	133
<i>Sidney Pontes-Filho, Pedro Lind, Anis Yazidi, Jianhua Zhang, Hugo Hammer, Gustavo B. M. Mello, Ioanna Sandvig, Gunnar Tufte, and Stefano Nichele</i>	

A Decomposition-Based Evolutionary Algorithm with Adaptive Weight Vectors for Multi- and Many-objective Optimization	149
<i>Guang Peng and Katinka Wolter</i>	
Differential Evolution Multi-Objective for Tertiary Protein Structure Prediction	165
<i>Pedro Henrique Narloch and Márcio Dorn</i>	
Particle Swarm Optimization: A Wrapper-Based Feature Selection Method for Ransomware Detection and Classification	181
<i>Muhammad Shabbir Abbasi, Harith Al-Sahaf, and Ian Welch</i>	
A Method for Estimating the Computational Complexity of Multimodal Functions	197
<i>Juan Luis Jiménez Laredo, Juan Julián Merelo Guervós, Carlos M. Fernandes, and Eric Sanlaville</i>	
Locating Odour Sources with Geometric Syntactic Genetic Programming.	212
<i>João Macedo, Lino Marques, and Ernesto Costa</i>	
Designing Cable-Stayed Bridges with Genetic Algorithms	228
<i>João Correia and Fernando Ferreira</i>	
A Fast, Scalable Meta-Heuristic for Network Slicing Under Traffic Uncertainty	244
<i>Thomas Bauschert and Varun S. Reddy</i>	
What Is Your MOVE: Modeling Adversarial Network Environments.	260
<i>Karlo Knezevic, Stjepan Picek, Domagoj Jakobovic, and Julio Hernandez-Castro</i>	
Using Evolution to Design Modular Robots: An Empirical Approach to Select Module Designs.	276
<i>Rodrigo Moreno and Andres Faina</i>	
Iterated Granular Neighborhood Algorithm for the Taxi Sharing Problem.	291
<i>Housseem E. Ben-Smida, Francisco Chicano, and Saoussen Krichen</i>	
Applications of Bio-inspired Techniques on Social Networks	
Multiobjective Optimization of a Targeted Vaccination Scheme in the Presence of Non-diagnosed Cases	307
<i>Krzysztof Michalak</i>	
Community Detection in Attributed Graphs with Differential Evolution	323
<i>Clara Pizzuti and Annalisa Socievole</i>	

Applications of Deep Bioinspired Algorithms

Fake News Detection Using Time Series and User Features Classification . . . 339
Marialaura Previti, Victor Rodriguez-Fernandez, David Camacho, Vincenza Carchiolo, and Michele Malgeri

Social Learning vs Self-teaching in a Multi-agent Neural Network System . . . 354
Nam Le, Anthony Brabazon, and Michael O’Neill

Evolving Instinctive Behaviour in Resource-Constrained Autonomous Agents Using Grammatical Evolution 369
Ahmed Hallawa, Simon Schug, Giovanni Iacca, and Gerd Ascheid

Adversarial Optimization Approach for Development of Robust Controllers 384
Mohammed Baraq Mushtaq and Tobias Rodemann

Soft Computing Applied to Games

Efficient Heuristic Policy Optimisation for a Challenging Strategic Card Game. 403
Raúl Montoliu, Raluca D. Gaina, Diego Pérez-Liebana, Daniel Delgado, and Simon Lucas

Finding Behavioural Patterns Among League of Legends Players Through Hidden Markov Models 419
Alberto Mateos Rama, Victor Rodriguez-Fernandez, and David Camacho

Learning the Designer’s Preferences to Drive Evolution. 431
Alberto Alvarez and Jose Font

Testing Hybrid Computational Intelligence Algorithms for General Game Playing. 446
A. E. Vázquez-Núñez, A. J. Fernández-Leiva, P. García-Sánchez, and A. M. Mora

Evolutionary Computation in Digital Healthcare and Personalized Medicine

Accelerated Design of HIFU Treatment Plans Using Island-Based Evolutionary Strategy 463
Filip Kuklis, Marta Jaros, and Jiri Jaros

Using Genetic Algorithms for the Prediction of Cognitive Impairments 479
Nicole Dalia Cilia, Claudio De Stefano, Francesco Fontanella, and Alessandra Scotto Di Freca

Short and Medium Term Blood Glucose Prediction Using Multi-objective Grammatical Evolution 494
Sergio Contador, J. Manuel Colmenar, Oscar Garnica, and J. Ignacio Hidalgo

Evolutionary Machine Learning

A Greedy Iterative Layered Framework for Training Feed Forward Neural Networks 513
L. L. Custode, C. L. Tecce, I. Bakurov, M. Castelli, A. Della Cioppa, and L. Vanneschi

Evolution of Scikit-Learn Pipelines with Dynamic Structured Grammatical Evolution 530
Filipe Assunção, Nuno Lourenço, Bernardete Ribeiro, and Penousal Machado

An Empirical Exploration of Deep Recurrent Connections Using Neuro-Evolution 546
Travis Desell, AbdElRahman ElSaid, and Alexander G. Ororbia

Using Skill Rating as Fitness on the Evolution of GANs 562
Victor Costa, Nuno Lourenço, João Correia, and Penousal Machado

A Local Search with a Surrogate Assisted Option for Instance Reduction 578
Ferrante Neri and Isaac Triguero

Evolutionary Latent Space Exploration of Generative Adversarial Networks 595
Paulo Fernandes, João Correia, and Penousal Machado

Neuro-Evolutionary Transfer Learning Through Structural Adaptation 610
AbdElRahman ElSaid, Joshua Karnas, Zimeng Lyu, Daniel Krutz, Alexander G. Ororbia, and Travis Desell

Ant-based Neural Topology Search (ANTS) for Optimizing Recurrent Networks 626
AbdElRahman ElSaid, Alexander G. Ororbia, and Travis J. Desell

Parallel and Distributed Systems

A MIMD Interpreter for Genetic Programming 645
Vinícius Veloso de Melo, Álvaro Luiz Fazenda, Léo Françoso Dal Piccol Sotto, and Giovanni Iacca

Security Risk Optimization for Multi-cloud Applications 659
Rudolf Lovrenčić, Domagoj Jakobović, Dejan Škvorc, and Stjepan Groš

Using Evolutionary Algorithms for Server Hardening via the Moving
 Target Defense Technique 670
*Ernesto Serrano Collado, Pedro A. Castillo,
 and Juan Julián Merelo Guervós*

An Event-Based Architecture for Cross-Breed Multi-population
 Bio-inspired Optimization Algorithms 686
*Erick Minguela, J. Mario García-Valdez,
 and Juan Julián Merelo Guervós*

Author Index 703