Record Nr. UNISA996547962103316 **Titolo** Artificial life and evolutionary computation: 16th Italian workshop, WIVACE 2022, Gaeta, Italy, September 14-16, 2022, revised selected papers / / edited by Claudio De Stefano, Francesco Fontanella, and Leonardo Vanneschi Pubbl/distr/stampa Cham, Switzerland: ,: Springer Nature Switzerland AG, , [2023] ©2023 **ISBN** 9783031311833 9783031311826 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (312 pages) Communications in Computer and Information Science, , 1865-0937;; Collana 1780 006.3823 Disciplina Artificial life Soggetti **Evolutionary computation** Self-organizing systems Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Networks and Complex systems -- Collaborative learning over Cellular Automata -- An agent-based model for crowd simulation -- Chemical Neural Networks and Semantic Information investigated through Synthetic Cells -- Spread of perturbations in supply chain networks: the effect of the bow-tie organization on the resilience of the global automotive system -- An efficient implementation of Flux Variability Analysis for metabolic networks -- Exploring the solution space of

Neural Networks and Semantic Information investigated through Synthetic Cells -- Spread of perturbations in supply chain networks: the effect of the bow-tie organization on the resilience of the global automotive system -- An efficient implementation of Flux Variability Analysis for metabolic networks -- Exploring the solution space of cancer evolution inference frameworks for single-cell sequencing data -- Computational investigation of the clustering of droplets in widening pipe geometries -- Network Creation During Agglomeration Processes of Polydisperse and Monodisperse Systems of Droplets -- Artificial Chemistry Performed in an Agglomeration of Droplets with Restricted Molecule Transfer -- Modelling wet-dry cycles in the binary polymer model -- On the growth of chemical diversity -- Kernel-based early fusion of structure and attribute information for detecting communities in attributed networks -- Cultural Innovation Triggers Inequality in a Sharing Economy -- Metaheuristics, robotics, and

machine learning -- Online adaptation of robots controlled by nanowire networks: A preliminary study -- The role of dynamical regimes of online adaptive BN-robots in noisy environments -- A novel evolutionary approach for Neural Architecture Search -- Single and Multi-objective Genetic Programming Methods for Prediction Intervals -- Green design of Single Frequency Networks by Multiband Robustness and a hybrid metaheuristic -- WanDa: A Mobile Application to Prevent Wandering -- Magnetic Devices Behavioral Modeling based on Genetic Programming and Neural Networks -- Evolutionary Stitching of Plot Units with Character Threads -- Impact of Morphology Variations on Evolved Neural Controllers for Modular Robots -- EGSGP: an Ensemble System Based on Geometric Semantic Genetic Programming -- Real-time monitoring tool for SNN hardware architecture.

## Sommario/riassunto

This book constitutes the refereed proceedings of the 16th Italian Workshop on Artificial Life and Evolutionary Computation, WIVACE 2022, held in Gaeta, Italy, during September 14–16, 2022. The 21 full papers and 3 short papers included in this book were carefully reviewed and selected from 45 submissions. They were organized in topical sections as follows: answer set programming; networks and complex systems, metaheuristics, robotics, and machine learning.