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Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Immune System Modeling -- Agent Based Modeling of Lung Metastasis-Immune System Competition -- Using UML to Model EAE and Its Regulatory Network -- Non-deterministic Explanation of Immune Responses: A Computer Model -- Dendritic Cell Trafficking: From Immunology to Engineering -- A Hybrid Agent Based and Differential Equation Model of Body Size Effects on Pathogen

Replication and Immune System Response -- Nonself Detection in a Two-Component Cellular Frustrated System -- Questions of Function: Modelling the Emergence of Immune Response -- Object-Oriented Refactoring of Existing Immune Models -- Mathematical Model of HIV Superinfection and Comparative Drug Therapy -- Theoretical Aspects of Artificial Immune Systems -- Exploration of the Dendritic Cell Algorithm Using the Duration Calculus -- On AIRS and Clonal Selection for Machine Learning -- A Theoretical Analysis of Immune Inspired Somatic Contiguous Hypermutations for Function Optimization -- Comparing Different Aging Operators -- Efficient Algorithms for String-Based Negative Selection -- T Cell Receptor Signalling Inspired Kernel Density Estimation and Anomaly Detection -- Applied Artificial Immune Systems -- An Immuno-engineering Approach for Anomaly Detection in Swarm Robotics -- An Immune-Inspired Approach to Qualitative System Identification of the Detoxification Pathway of Methylglyoxal -- Application of AIS Based Classification Algorithms to Detect Overloaded Areas in Power System Networks -- Artificial Immune System Applied to the Multi-stage Transmission Expansion Planning -- Immune Learning in a Dynamic Information Environment -- Unsupervised Structure Damage Classification Based on the Data Clustering and Artificial Immune Pattern Recognition -- A Sense of 'Danger' for Windows Processes -- An Immunity Inspired Real-Time Cooperative Control Framework for Networked Multi-agent Systems -- Managing Diversity on an AIS That Solves 3-Colouring Problems -- An Error Propagation Algorithm for Ad Hoc Wireless Networks -- Grammar-Based Immune Programming for Symbolic Regression -- A New Algorithm Based on Negative Selection and Idiotypic Networks for Generating Parsimonious Detector Sets for Industrial Fault Detection Applications -- Parametric Modelling of a Flexible Plate Structure Using Artificial Immune System Algorithm -- A Hybrid Approach for Learning Concept Hierarchy from Malay Text Using GAHC and Immune Network -- An Immune Inspired Algorithm for Solving Dynamic Vehicle Dispatching Problem in a Port Container Terminal.

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Sommario/riassunto

This book constitutes the refereed proceedings of the 8th International Conference on Artificial Immune Systems, ICARIS 2009, held in York, United Kingdom, in August 2009. The 30 revised full papers presented were carefully reviewed and selected from 55 submissions. The papers are organized in topical sections on immune system modelling, theoretical aspects of artificial immune systems, and applied artificial immune systems. .

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