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Artificial Immune Systems

7th International Conference, ICARIS 2008
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Proceedings

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7th International Conference on Artificial Immune Systems

10th–13th August, 2008 in Phuket, Thailand



There are many desirable features of natural systems: adaptability, robustness, homeostasis, memory, immunity. Biological immune systems seem to exhibit all of these features and more. Thus it is not so surprising that a vigorous research field has emerged, which focuses on understanding biological immune systems and creating new models, algorithms, technologies and theoretical understandings. The field is known collectively as artificial immune systems (AIS), and comprises a remarkably diverse range of researchers. Biologists join forces with mathematicians to create new models. Engineers and computer scientists produce new autonomous intelligent software. Roboticists and specialists in unconventional computation create new control systems or new ways to compute.

The International Conference on Artificial Immune Systems is proud to be the premiere conference in this exciting area. For the first time ICARIS moved to East Asia, not only being held in Thailand with Thai local chairs, but also with conference chairs from South Korea. As its organizers, we were honored to have had such a variety of innovative and original scientific papers presented this year, especially from those new to the conference.

ICARIS 2008 was the seventh international conference dedicated entirely to the field of AIS. We had more submissions than ever before this year, and because our acceptance rate is based purely on quality, we accepted 60% of papers. These acceptances were based on advice from stream leaders – experts in the field who agreed to help monitor submissions and make decisions on subject and quality. Thus, in these proceedings you will find 40 papers written by the leading scientists in the field, from 25 different countries in 4 continents, describing an impressive array of ideas, technologies and applications for AIS. We could not have organized this conference without these researchers, so we thank them all for coming. We also could not have organized ICARIS without the excellent work of all of the Programme Committee, our Publicity Chair Sungwon Jung, our Local Chairs Supiya Charoensiriwath and Boonserm Kaewkamnerdpong, and our conference administrator, J.J. Giwa.

Whether you are new to the field, or are one of its established researchers, we hope you enjoy the proceedings of ICARIS 2008.

June 2008

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Tutorial Speakers

1. Introduction to Artificial Immune Systems

Giuseppe Nicosia (University of Catania)

2. Applied Artificial Immune Systems

Leandro De Castro (Catholic University of Santos)

3. Simulating and Modelling the Immune System

Part A: Effective Use of OO Techniques for Easy Simulation of Immune Systems:

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Part B: Understanding the Immune System Through Modelling and Simulation:

A Toolkit for the Engineer: Emma Hart (Napier University)

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Table of Contents

Computational Immunology

A Stochastic Model of the Interleukin (IL)-1 β Network	1
<i>Johnny Kelsey, Brian Henderson, Rob Seymour, and Andy Hone</i>	
Modelling the Tunability of Early T Cell Signalling Events	12
<i>Nick D.L. Owens, Jon Timmis, Andrew Greensted, and Andy Tyrrell</i>	
Immune Responses: A Stochastic Model	24
<i>Anastasio Salazar-Bañuelos</i>	

Applied AIS

Adaptive Spam Detection Inspired by a Cross-Regulation Model of Immune Dynamics: A Study of Concept Drift	36
<i>Alaa Abi-Haidar and Luis M. Rocha</i>	
MOBAIS: A Bayesian Artificial Immune System for Multi-Objective Optimization	48
<i>Pablo A.D. Castro and Fernando J. Von Zuben</i>	
An Advanced Clonal Selection Algorithm with Ad-Hoc Network-Based Hypermutation Operators for Synthesis of Topology and Sizing of Analog Electrical Circuits	60
<i>Angelo Ciccazzo, Piero Conca, Giuseppe Nicosia, and Giovanni Stracquadanio</i>	
A Multi-Objective Multipopulation Approach for Biclustering	71
<i>Guilherme Palermo Coelho, Fabrício Olivetti de França, and Fernando J. Von Zuben</i>	
Viral System to Solve Optimization Problems: An Immune-Inspired Computational Intelligence Approach	83
<i>Pablo Cortés, José M. García, Luis Onieva, Jesús Muñozuri, and José Guadix</i>	
Computing the State of Specknets: Further Analysis of an Innate Immune-Inspired Model	95
<i>Despina Davoudani, Emma Hart, and Ben Paechter</i>	
A Hybrid Model for Immune Inspired Network Intrusion Detection	107
<i>Robert L. Fanelli</i>	

Credit Card Fraud Detection with Artificial Immune System	119
<i>Manoel Fernando Alonso Gadi, Xidi Wang, and Alair Pereira do Lago</i>	
Artificial Immune Recognition System with Nonlinear Resource Allocation Method and Application to Traditional Malay Music Genre Classification	132
<i>Shahram Golzari, Shyamala Doraisamy, Md Nasir B. Sulaiman, Nur Izura Udzir, and Noris Mohd. Norowi</i>	
Further Exploration of the Dendritic Cell Algorithm: Antigen Multiplier and Time Windows	142
<i>Feng Gu, Julie Greensmith, and Uwe Aickelin</i>	
Evaluation and Extension of the AISEC Email Classification System . . .	154
<i>Nrupal Prattipati and Emma Hart</i>	
Dynamic Polymorphic Agents Scheduling and Execution Using Artificial Immune Systems	166
<i>Leonardo M. Honório, Michael Vidigal, and Luiz E. Souza</i>	
AIS-Based Bootstrapping of Bayesian Networks for Identifying Protein Energy Route	176
<i>Sungwon Jung, Kyu-il Cho, and Doheon Lee</i>	
A Neuro-Immune Inspired Robust Real Time Visual Tracking System	188
<i>Yang Liu, Jon Timmis, and Tim Clarke</i>	
Negative Selection with Antigen Feedback in Intrusion Detection	200
<i>Wanli Ma, Dat Tran, and Dharmendra Sharma</i>	
A Neuro-Immune Algorithm to Solve the Capacitated Vehicle Routing Problem	210
<i>Thiago A.S. Masutti and Leandro N. de Castro</i>	
Improving Artificial Immune System Performance: Inductive Bias and Alternative Mutations	220
<i>Pupong Pongcharoen, Warattapop Chainate, and Sutatip Pongcharoen</i>	
Flexible Immune Network Recognition System for Mining Heterogeneous Data	232
<i>Mazidah Puteh, Abdul Razak Hamdan, Khairuddin Omar, and Azuraliza Abu Bakar</i>	
An Artificial Immune System for Evolving Amino Acid Clusters Tailored to Protein Function Prediction	242
<i>A. Secker, M.N. Davies, A.A. Freitas, J. Timmis, E. Clark, and D.R. Flower</i>	

Optimization of Steel Catenary Risers for Offshore Oil Production Using Artificial Immune System	254
<i>Ian N. Vieira, Beatriz S.L.P. de Lima, and Breno P. Jacob</i>	
An Idiotypic Immune Network as a Short-Term Learning Architecture for Mobile Robots	266
<i>Amanda Whitbrook, Uwe Aickelin, and Jonathan Garibaldi</i>	
Conserved Self Pattern Recognition Algorithm	279
<i>Senhua Yu and Dipankar Dasgupta</i>	

Theoretical AIS

The Deterministic Dendritic Cell Algorithm	291
<i>Julie Greensmith and Uwe Aickelin</i>	
Artificial Immune Systems and Kernel Methods	303
<i>T.S. Guzella, T.A. Mota-Santos, and W.M. Caminhas</i>	
Boosting the Immune System	316
<i>Chris McEwan, Emma Hart, and Ben Paechter</i>	
The Limitations of Frequency Analysis for Dendritic Cell Population Modelling	328
<i>Robert Oates, Graham Kendall, and Jonathan M. Garibaldi</i>	
Empirical Investigation of an Artificial Cytokine Network	340
<i>Mark Read, Jon Timmis, and Paul S. Andrews</i>	
An Empirical Study of Self/Non-self Discrimination in Binary Data with a Kernel Estimator	352
<i>Thomas Stibor</i>	

Position/Conceptual Papers

The Pathways of Complement	364
<i>Jonathan M. Aitken, Tim Clarke, and Jonathan I. Timmis</i>	
Adaptable Lymphocytes for Artificial Immune Systems	376
<i>Paul S. Andrews and Jon Timmis</i>	
On the Relevance of Cellular Signaling Pathways for Immune-Inspired Algorithms	387
<i>T.S. Guzella and T.A. Mota-Santos</i>	
AIS Based Distributed Wireless Sensor Network for Mobile Search and Rescue Robot Tracking	399
<i>Albert Ko, Henry Y.K. Lau, and Nicole M.Y. Lee</i>	

Eating Data Is Good for Your Immune System: An Artificial Metabolism for Data Clustering Using Systemic Computation	412
<i>Erwan Le Martelot, Peter J. Bentley, and R. Beau Lotto</i>	
An Immune System Based Multi-robot Mobile Agent Network	424
<i>W. Wilfred Godfrey and Shivashankar B. Nair</i>	
Author Index	435