

\*\*\*\*\*

\* CALL FOR PAPERS \*

\*\*\*\*\*

The Seventh International Conference on Simulated Evolution And Learning  
(SEAL'08)

7 ~ 10 December 2008, Melbourne, Australia

<http://www.cs.rmit.edu.au/seal08/>

Hosted and Sponsored by  
Evolutionary Computation and Machine Learning Group (ECML)  
School of Computer Science and IT, RMIT University  
Department of Computer Science and Software Engineering,  
The University of Melbourne  
School of Information Technology, Monash University

## AIMS AND SCOPES

-----

Evolution and learning are two fundamental forms of adaptation. SEAL'08 is the seventh biennial conference in the highly successful series that aims at exploring these two forms of adaptation and their roles and interactions in adaptive systems. Cross-fertilisation between evolutionary learning and other machine learning approaches, such as neural network learning, reinforcement learning, decision tree learning, fuzzy system learning, etc., will be strongly encouraged by the conference. The other major theme of the conference is optimisation by evolutionary and other nature inspired approaches. The topics of interest to this conference include but are not limited to the following:

### 1. Evolutionary Learning

Fundamental Issues in Evolutionary Learning    Co-Evolutionary Learning  
Modular Evolutionary Learning Systems    Classifier Systems  
Representation Issues in Evolutionary Learning    Artificial Immune Systems  
Interactions Between Learning and Evolution    Credit Assignment  
Swarm Intelligence    Collective Intelligence  
Comparison between Evolutionary Learning and Other Learning Approaches,

## 2. Evolutionary Optimisation

Combinatorial Optimisation    Numerical/Function Optimisation  
(e.g., scheduling, allocation, planning,    Hybrid Optimisation Algorithms  
packing, transportation, etc.)    Comparison of Algorithms  
Nature-Inspired Algorithms (ant colony optimisation, particle swarm  
optimisation, memetic algorithms, simulated annealing, ...)

## 3. Hybrid Learning

Evolutionary Artificial Neural Networks    Evolutionary Fuzzy Systems  
Evolutionary Reinforcement Learning    Evolutionary Clustering  
Evolutionary Decision Tree Learning    Evolutionary Unsupervised Learning  
Genetic Programming    Other Hybrid Learning Systems  
Developmental Processes

## 4. Adaptive Systems

Complexity in Adaptive Systems    Evolutionary Robotics  
Evolvable Hardware and Software    Artificial Ecology  
Evolutionary Games    Self-Repairing Systems  
Evolutionary Computation Techniques in Economics, Finance and Marketing

## 5. Theoretical Issues in Evolutionary Computation

Convergence and Convergence Rate of Evolutionary Algorithms  
Computational Complexity of Evolutionary Algorithms  
Self-Adaptation in Evolutionary Algorithms

## 6. Real-World Applications of Evolutionary Computation Techniques

### KEYNOTE SPEAKERS

-----

Professor Kalyanmoy Deb (India)  
Professor Zbigniew Michalewicz (Australia)  
Professor Xin Yao (United Kingdom)  
Professor Hussein Abbass (Australia)

### IMPORTANT DATES

-----

30 June 2008      Deadline for submission of full papers ( $\leq 10$  pages)  
18 August 2008      Notification of acceptance  
8 September 2008      Deadline for camera-ready copies of accepted papers  
7 ~ 10 December 2008      Conference sessions (including tutorials and workshops)

### PUBLICATIONS

-----

All accepted papers which are presented at the conference will be included in the conference proceedings, published as LNCS (Lecture Notes in Computer Science) by Springer. Selected best papers will be invited for further revisions and extensions for possible publications by two journal special issues (Soft

Computing and Evolutionary Intelligence).

For more information please visit: <http://www.cs.rmit.edu.au/seal08/>

For general inquiries, please contact one of the following people:

Xiaodong Li ( [xiaodong@cs.rmit.edu.au](mailto:xiaodong@cs.rmit.edu.au) ), SEAL'08 General Chair

Michael Kirley ( [mkirley@cs.mu.OZ.AU](mailto:mkirley@cs.mu.OZ.AU) ), SEAL'08 Program Chair

Mengjie Zhang ( [Mengjie.Zhang@mcs.vuw.ac.nz](mailto:Mengjie.Zhang@mcs.vuw.ac.nz) ), SEAL'08 Program Chair

=====

=====