# SEAL 2014 Call for Papers


http://seal2014.otago.ac.nz

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### Important Dates
Paper submission
**28 July 2014**
Acceptance notification:
29 August 2014
Camera ready due:
16 September 2014
Conference sessions:
15-18 December 2014

## Aims and Scope

Evolution and learning are two fundamental forms of adaptation. SEAL 2014 is the tenth 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-fertilization 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 optimization by evolutionary approaches or hybrid evolutionary 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 System
   - Collective Intelligence
   - Representation Issues in Evolutionary Learning
   - Artificial Immune Systems
   - Interactions Between Learning and Evolution
   - Credit Assignment
   - Swarm Intelligence
   - Comparison between Evolutionary Learning and Other Learning Approach
2. Evolutionary Optimisation:
   - Combinatorial Optimisation
   - Numerical/Function Optimisation
   - Hybrid Optimisation Algorithms
   - Comparison of 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 Economics, Finance and Marketing
5. Theoretical Issues in Evolutionary Computation:
   - Computational Complexity of Evolutionary Algorithms
   - Self-Adaptation in Evolutionary Algorithms
   - Convergence and Convergence Rate of Algorithms
6. Real-World Applications of Evolutionary Computation Techniques

## Publications

All accepted papers that are presented at the conference will be included in the conference proceedings, to be published in Lecture Notes in Computer Science (LNCS) by Springer. Selected papers will be invited for further revision and extension for possible publication in a special issue of two SCI journals after further review: Genetic Programming and Evolvable Machines (GPEM, springer, Impact Factor 1.333) and Soft Computing (Springer, Impact Factor 1.124).