

## Special Issue on Swarm Intelligence for Combinatorial Optimization Problems

### Call for Papers

Swarm intelligence (SI) is a collective computational intelligence approach in which computational systems are built inspired of natural systems such as the behavior of animal societies, for example, bird flocking and fish schools, and of social insects, for example, ants, bees, and wasp's colonies. It has been shown that the algorithms inspired of collective behavior of social insects can solve complex, ill-structured, and semidefined problems in a more efficient way. Recently, SI algorithms and approaches have been proposed to solve combinatorial optimization problems, which are a class of very hard problems that are used to be models of real-world problems.

The aim of this special issue is to provide the up-to-date advancement of research on swarm intelligence as well as the state of the art of swarm intelligence for combinatorial optimization problems.

We invite researchers to submit their original as well as review contributions that provide novel solutions to challenging problems. Submitted papers can address theoretical or practical aspects of progress in this area as well as new directions in swarm intelligence. Potential topics include, but are not limited to:

- Theory of collective and swarm intelligence
- Advances in swarm intelligence algorithms including ant colony optimisation, particular swarm optimisation, bee algorithms, and so on
- Real-world applications of particle swarm optimization, differential evolution, bees algorithms, and ant colony optimisation
- New computational models and techniques based on swarm intelligence
- New hybrids between these algorithms and other methods
- Model of the behavior of natural and artificial swarm intelligence systems
- Representation techniques
- Neighborhoods and efficient algorithms for searching
- Comparisons between different (also exact) techniques

Before submission authors should carefully read over the journal's Author Guidelines, which are located at <http://www.hindawi.com/journals/aai/guidelines/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/> according to the following timetable:

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First Round of Reviews	Friday, 6 July 2012
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