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ANTS'2000
From Ant Colonies to Artificial Ants:
Second International Workshop on Ant Algorithms
Brussels, Belgium, September 8-9, 2000

Conference email address: ants@iridia.ulb.ac.be

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ANTS'2000 is the second edition of the only international event devoted to ant algorithms.

Scope. The behavior of social insects in general, and of ants living in colonies in particular, has since long time fascinated researchers in ethology and animal behavior, who have proposed many models to explain their capabilities. Recently, ant algorithms have been proposed as a novel computational approach that replaces the traditional emphasis on control, preprogramming, and centralization with designs featuring autonomy, emergence, and distributed functioning. These designs are proving flexible and robust, able to adapt quickly to changing environments and to continue functioning even when individual elements fail. A particularly successful research direction in ant algorithms, known as "Ant Colony Optimization", is dedicated to their application to discrete optimization problems. Ant Colony Optimization has been applied successfully to a large number of difficult combinatorial problems like the quadratic assignment and the traveling salesman problems, to routing in telecommunications networks, and many other problems. Also of great interest to the workshop are models of real ant colonies organization and functioning which could stimulate new algorithmic approaches.

The aims are to give researchers in both real ants behavior and in ant algorithms an opportunity to meet, to present their latest research, and to discuss current developments and applications. The two-day event will be held in Brussels, Belgium, from **8 to 9 September, 2000**. In the evening of **September 7** there will be a tutorial on ant algorithms.

Venue. The workshop will take place in Brussels, Belgium. Further details about the workshop are published on-line and can be accessed at **http://iridia.ulb.ac.be/~ants/ants2000/.**

Submission and publication. Submissions are invited that describe models of aspects of real ant colonies behavior that can stimulate new algorithmic approaches, empirical and theoretical research in ant algorithms and Ant Colony Optimization, and applications of ant algorithms or Ant Colony Optimization to real-world problems. Papers can be submitted either as extended abstracts or as full papers. The length should be of approximately 4 or at most 10 pages respectively. Formatting and submission instructions are provided at the workshop web page. Accepted submissions will be published in a booklet that will be distributed to workshop participants. We are investigating the possibility of publishing the best papers as a journal special issue. In this case, a further call for full papers will be released. All accepted papers will be presented at the workshop as oral presentations or in special poster sessions.

Important dates

Submission deadline	April 15, 2000
Notification of acceptance	May 30, 2000
Camera ready copy	June 30, 2000
Conference	September 8-9, 2000

General chair and local arrangements address

Dr. Marco Dorigo
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Limited number of places. The number of participants will be limited. If you intend to participate drop a line to ants@iridia.lb.ac.be

Further details and updates are published on-line and can be accessed on

http://iridia.ulb.ac.be/~ants/ants2000/