

Call for Abstracts: **Biology Track** of 14th International Conference on Swarm Intelligence

ANTS 2024

14th International Conference on Swarm Intelligence

October 9-11, 2024. Konstanz, Germany

<https://www.uni-konstanz.de/ants-2024/>

We invite the submission of abstracts (max. 1 page) to be considered for poster presentation at the 14th International Conference on Swarm Intelligence (ANTS 2024). We particularly encourage biologists who study collective behaviour and are interested in meeting and interacting with computer scientists and roboticists studying similar behaviours from a different point of view. Submit your abstract via email to Heiko Hamann ([heiko.hamann@uni-konstanz.de](mailto:heiko.hamann@uni-konstanz.de)) and Andreagiovanni Reina ([andreagiovanni.reina@uni-konstanz.de](mailto:andreagiovanni.reina@uni-konstanz.de)) by May 28th, 2024.

Scope of the Conference

Swarm intelligence is the discipline that deals with the study of self-organising processes both in nature and in artificial systems. Researchers in ethology and animal behaviour have proposed several models to explain interesting aspects of collective behaviours, such as movement coordination, shape-formation, and decision-making. Recently, algorithms and methods inspired by these models have been proposed to solve difficult problems in many domains. Among these, we particularly mention ant colony optimisation (ACO) and particle swarm optimisation (PSO), focusing respectively on discrete and continuous optimisation problems. Another field of techniques derived from swarm intelligence is swarm robotics with a focus on designing collaborative multi-robot systems that show high degrees of robustness and scalability.

Keynote Speakers

- Prof. Iain D. Couzin – Max Planck Institute of Animal Behavior
- Prof. Barbara Mazzolai – Istituto Italiano di Tecnologia (IIT)
- Prof. Emma Hart – Edinburgh Napier University

Relevant Research Areas for the Biological Track of ANTS 2024

Typical, but not exclusive, topics of interest are:

- behavioural models of social insects or other animal societies
- theoretical and empirical research in collective animal behaviour
- research in collective decision-making and collective motion of animal groups

## Important Dates

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Submission deadline: May 28, 2024  
Notification of acceptance: June 21, 2024  
Conference: October 9-11, 2024  
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## Travel Grant

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There is the opportunity to apply for travel grants that aim to support financially the participation of applicants with limited financial resources, especially those conducting research in developing countries. You can find more information on the travel grant at <https://www.uni-konstanz.de/ants-2024/> or, for questions, contact Jonas Kuckling ([jonas.kuckling@uni-konstanz.de](mailto:jonas.kuckling@uni-konstanz.de)).