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Swarm Intelligence

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Preface

These proceedings contain the papers presented at ANTS 2018, the 11th International Conference on Swarm Intelligence, held at the National Research Council (CNR) in Rome, Italy, during October 29–31, 2018. The ANTS series started in 1998 with the First International Workshop on Ant Colony Optimization (ANTS 1998). Since then, ANTS, which is held bi-annually, has gradually become an international forum for researchers in the wider field of swarm intelligence. In 2004, this development was acknowledged by the inclusion of the term "Swarm Intelligence" (next to "Ant Colony Optimization") in the conference title. Since 2010, the ANTS conference is officially devoted to the field of swarm intelligence as a whole, without any bias towards specific research directions. This is reflected in the title of the conference: "International Conference on Swarm Intelligence."

This volume contains the best papers selected out of 69 submissions. Of these, 24 were accepted as full-length papers, while 12 were accepted as short papers. This corresponds to an overall acceptance rate of 52%. Also included in this volume are 7 extended abstracts.

All the contributions were presented as posters. The full-length papers were also presented orally in a plenary session. Extended versions of the best papers presented at the conference will be published in a special issue of the *Swarm Intelligence* journal.

We would like to take this opportunity to thank the large number of people that were involved in making this conference a success. We would like to express our gratitude to the authors who contributed their work, to the members of the International Program Committee, to the additional referees for their qualified and detailed reviews, and to the staff at the Institute of Cognitive Sciences and Technologies (ISTC) of the CNR for helping with organizational matters.

We hope the reader will find this volume useful both as a reference to current research in swarm intelligence and as a starting point for future work.

July 2018

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