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Parallel Problem Solving from Nature – PPSN XV

15th International Conference
Coimbra, Portugal, September 8–12, 2018
Proceedings, Part II

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Preface

During September 8–12, 2018, researchers from all over the world gathered in Coimbra, Portugal, for the 15th International Conference on Parallel Problem Solving from Nature (PPSN XV). Far more than a European event, this biennial meeting has established itself among the most important and highly respected international conferences in nature-inspired computation worldwide since its first edition in Dortmund in 1990. These two LNCS volumes contain the proceedings of the conference.

We received 205 submissions from 44 countries. An extensive review process involved over 200 reviewers, who evaluated and reported on the manuscripts. All papers were assigned to at least three Program Committee members for review. A total of 745 review reports were received, or over 3.6 reviews on average per manuscript. All review reports were analyzed in detail by the Program Chairs. Where there was disagreement among reviewers, the Program Chairs also evaluated the papers themselves. In some cases, discussion among reviewers with conflicting reviews was promoted with the aim of making as accurate and fair a decision as possible. Overall, 79 manuscripts were selected for presentation and inclusion in the proceedings, which represents an acceptance rate just below 38.6%. This makes PPSN 2018 the most selective PPSN conference of the past 12 years, and reinforces its position as a major, high-quality evolutionary computation scientific event.

The meeting began with an extensive program of 23 tutorials and six workshops covering a wide range of topics in evolutionary computation and related areas, including machine learning, statistics, and mathematical programming. Tutorials offered participants the opportunity to learn more about well-established, as well as more recent, research, while workshops provided a friendly environment where new ideas could be presented and discussed by participants with similar interests.

In addition, three distinguished invited speakers delivered keynote addresses at the conference. Ahmed Elgammal (Rutgers University, USA), Francis Heylighen (Vrije Universiteit Brussel, Belgium), and Kurt Mehlhorn (Max Planck Institute for Informatics, Saarbrücken, Germany) spoke on advances in the area of artificial intelligence and art, foundational concepts and mechanisms that underlie parallel problem solving in nature, and models of computation by living organisms, respectively.

We thank the authors of all submitted manuscripts, and express our appreciation to all the members of the Program Committee and external reviewers who provided thorough evaluations of those submissions. We thank the keynote speakers, tutorial speakers, and workshop organizers for significantly enriching the scientific program with their participation. To all members of the Organizing Committee and local organizers, we extend our deep gratitude for their dedication in preparing and running the conference. Special thanks are due to the University of Coimbra for hosting the conference and, in particular, to INESC Coimbra, CISUC, the Department of Informatics Engineering, the Department of Mathematics, and the International Relations Unit, for their invaluable contribution to the organization of this event, and to the

sponsoring institutions for their generosity. Finally, we wish to personally thank Carlos Henggeler Antunes for his unconditional support.

September 2018

Anne Auger
Carlos M. Fonseca
Nuno Lourenço
Penousal Machado
Luís Paquete
Darrell Whitley

Organization

PPSN 2018 was organized by INESC Coimbra and CISUC, and was hosted by the University of Coimbra, Portugal. Established in 1290, the University of Coimbra is the oldest university in the country and among the oldest in the world. It is a UNESCO World Heritage site since 2013.

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