



# **SYNERGY**

**Synergy for Smart Multi-Objective Optimisation**

## **D2.2**

### **Proceedings of the BIOMA conference**

**Peter Korošec, Nouredine Melab, El-Ghazali Talbi**

**31 October 2018**



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# 1. Introduction

Carried out as the SYNERGY Task 2.2, the BIOMA 2018 conference was held in Paris, France, from 16 to 18 May 2018. It was organised by USTL and JSI. The general chair of the conference was El-Ghazali Talbi (USTL) with co-chairs Peter Korošec (JSI) and Nouredine Melab (USTL).

The call for papers (<http://bioma2018.sciencesconf.org>) resulted in a total of 69 submissions, including 53 long papers and 16 short papers. Each submitted long paper was assigned to three members of the Program Committee for reviewing, while short papers were assigned to two reviewers. Based on the reviewing process, 27 long papers were accepted for presentation and publication in the Lecture Notes in Computer Science (LNCS) proceedings by Springer. In addition, eight short papers were accepted as posters.

The long papers made up a strong program, which was completed by two keynote presentations from Prof. Yaochu Jin (University of Surrey, UK) and Prof. Swagatam Das (Indian Statistical Institute, Kolkata, India). The accepted papers were contributed by the authors from 18 countries: Algeria, Brazil, Canada, Chile, Czech Republic, Finland, France, Germany, India, Japan, Mexico, Portugal, Slovenia, Spain, Switzerland, Turkey, Uruguay, and USA.

## 2. Goals

The aim of the SYNERGY project was to improve the international visibility of JSI. To this end, the international and so far Slovenia-based conference BIOMA was moved to Paris in 2018. The aim to address a larger audience and international notice of JSI was clearly achieved by this.

## 3. Results

The number of submissions was more than doubled from previous years (from 25 to 69) and the number of accepted papers raised from 17 to 27, however providing a reduced rate of acceptance. The number of countries from where participants came increased from 11 to 18, while the number of attendees increased from 33 to 57. The proceedings of the conference were

published in the prestigious Springer LNCS series for the first time. This feature increased the international visibility of the conference as well and will certainly attract high number of submissions to future conference editions.

## 4. Outcome

The proceedings were co-edited by Peter Korošec, Nouredine Melab, and El-Ghazali Talbi and published by Springer as Volume 10835 of their LNCS series. Due to copyright limitations, we are not allowed to attach the entire proceeding to this report. However, they can be accessed at <https://www.springer.com/gp/book/9783319916408>.

## Appendix A: First pages of the proceedings

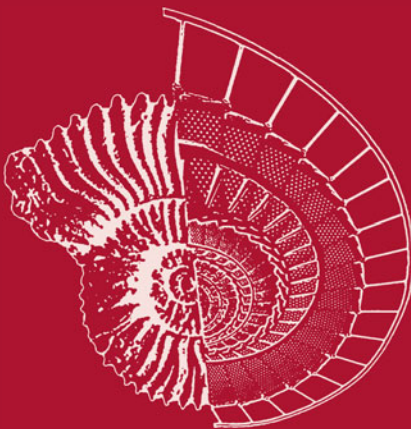
This appendix contains the first pages of the proceedings, including the title page, preface, information on the conference organisation, and the table of contents.

Peter Korošec  
Nouredine Melab  
El-Ghazali Talbi (Eds.)

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# Bioinspired Optimization Methods and Their Applications

8th International Conference, BIOMA 2018  
Paris, France, May 16–18, 2018  
Proceedings



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Peter Korošec · Nouredine Melab  
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# Bioinspired Optimization Methods and Their Applications

8th International Conference, BIOMA 2018  
Paris, France, May 16–18, 2018  
Proceedings



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# Preface

BIOMA is one of the major scientific events focusing on the progress of the area of bioinspired optimization methods and their applications. As in the seven previous editions, BIOMA 2018 provided an opportunity to the international research community in bioinspired optimization to discuss recent research results and to develop new ideas and collaborations in a friendly and relaxed atmosphere. But this year, BIOMA was organized for the first time outside Slovenia, namely, in Paris, France. This event was part of the SYNERGY project that has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement no. 692286.

BIOMA 2018 welcomed talks that cover various aspects of bioinspired optimization research such as new algorithmic developments, high-impact applications, new research challenges, theoretical contributions, implementation issues, and experimental studies. BIOMA 2018 strived for a high-quality program that was complemented by several invited talks and special sessions.

The call for papers resulted in a total of 69 submissions including 53 long papers and 16 short papers. Each submitted long paper was assigned to three members of the Program Committee for review, with short papers assigned to two reviewers. Based on the review process, 27 long papers were accepted for presentation and inclusion in the LNCS proceedings. In addition, eight short papers were accepted as posters. The long papers made up a strong program which was completed by three keynotes from Prof. Yaochu Jin (University of Surrey, UK), Prof. Swagatam Das (Indian Statistical Institute, Kolkata, India) and Prof. Celso C. Ribeiro (Universidade Federal Fluminense, Brazil). The accepted papers are from 18 countries: Algeria, Brazil, Canada, Chile, Czech Republic, Finland, France, Germany, India, Japan, Mexico, Portugal, Slovenia, Spain, Switzerland, Turkey, Uruguay, and USA.

We would like to thank all the contributors for the success of the BIOMA 2018 conference, in particular the members of the Program Committee for their careful review of the papers and useful feedback to the authors. Our special thanks go to the three keynote speakers, the members of the Organizing Committee, and the publicity chairs.

May 2018

Peter Korošec  
Nouredine Melab  
El-Ghazali Talbi

# Organization

BIOMA 2018 was organized by the University of Lille, France, and the Jožef Stefan Institute, Slovenia.

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