# 13th LION

# Learning and Intelligent OptimizatioN Conference

**May 27-31, 2019**

**Chania, Crete, Greece**

http://www.lion13.pem.tuc.gr

## 2nd Call for Papers

Due to numerous requests, the submission deadline for the **13rd Learning and Intelligent Optimization Conference (LION 13),** has been extended to **February 17th, 2019** (Due to the tight review schedule, no further extension is possible).

The conference will be organized by the Decision Support Systems Laboratory, School of Production Engineering and Management of the Technical University of Crete, Chania, Crete, Greece, May 27-31, 2019.

### Scope of the conference

The large variety of heuristic algorithms for hard optimization problems raises numerous interesting and challenging issues. Practitioners are confronted with the burden of selecting the most appropriate method, in many cases through an expensive algorithm configuration and parameter tuning process, and subject to a steep learning curve. Scientists seek theoretical insights and demand a sound experimental methodology for evaluating algorithms and assessing strengths and weaknesses. A necessary prerequisite for this effort is a clear separation between the algorithm and the experimenter, who, in too many cases, is "in the loop" as a crucial intelligent learning component. Both issues are related to designing and engineering ways of "learning" about the performance of different techniques, and ways of using past experience about the algorithm behavior to improve performance in the future. Intelligent learning schemes for mining the knowledge obtained from different runs or during a single run can improve the algorithm development and design process and simplify the applications of high-performance optimization methods. Combinations of algorithms can further improve the robustness and performance of the individual components provided that sufficient knowledge of the relationship between problem instance characteristics and algorithm performance is obtained.

This meeting, which continues the successful series of LION events, is aimed at exploring the intersections and uncharted territories between machine learning, artificial intelligence, mathematical programming and algorithms for hard optimization problems.

The main purpose of the event is to bring together experts from these areas to discuss new ideas and methods, challenges and opportunities in various application areas, general trends and specific developments.

## Invited Speakers:

Marco Dorigo, Professor, Université Libre de Bruxelles (ULB), Brussels.

Panos Pardalos, Professor, University of Florida, USA.

Xin-She Yang, Professor, Middlesex University London, UK.

## Special Sessions

Special sessions are organized as part of LION Conferences as a way to focus submissions and encourage more interaction between specific communities. In general, submission and publication rules are the same as for the general call for papers, with the organizers of the special sessions coordinating and helping in identifying competent reviewers.

We invite those who are interested in organizing special sessions to submit a relevant proposal (session title, organizers, description).

## Important dates

Paper submission: ~~January 13th, 2019~~ **February 17th, 2019**
Author Notification: ~~February 17th, 2019~~ **March 17th, 2019**
Camera ready for pre-proceedings: ~~March 17th, 2019~~ **April 7th, 2019**
Early Registration until: **April 21st, 2019**
Late Registration until: **May 24th, 2019**

## Publications

Conference proceedings will be published by **Springer-Verlag** in Lecture Notes in Computer Science

Revised selected papers of LION 13 will be published in a special issue of Annals of Mathematics and Artificial Intelligence

## Submission System

All papers must be submitted using **Easy Chair** at the following link:

**LION 13 Submission System**

## Conference General Chair:

Nikolaos Matsatsinis, Technical University of Crete, Chania, Crete, Greece (nikos@ergasya.tuc.gr)

## Technical Program Committee Chairs

Panos Pardalos, University of Florida, United States
Yannis Marinakis, DSS Lab, Technical University of Crete, Chania, Crete, Greece