Learning and Intelligent OptimizatioN Conference LION18

Ischia Island (Naples), Italy,

9 - 13 June, 2024

Call for Papers

Aims & Scope: This meeting, which continues the successful series of LION events (LION14 in Athens, LION15 in Athens, LION16 in Milos Island, LION17 in Nice), is 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.
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.

Paper submission: Please prepare your paper in English using the Lecture Notes in Computer Science (LNCS) template, which is available here. Papers must be submitted in PDF. When submitting a paper to LION18, authors are required to select one of the following three types of papers:

- Long paper: original novel and unpublished work (max. 15 pages in LNCS format);
- Short paper: an extended abstract of novel work (max. 4 pages in LNCS format);
- Work for oral presentation only (no page restriction; any format). For example, work already published elsewhere, which is relevant and which may solicit fruitful discussion at the conference.

The papers must be submitted at https://easychair.org/conferences/?conf=lion18.

Important Dates (AoE = UTC-12h)
Special Sessions proposals:
submission opens October 12, 2023;
submission closes October 25, 2023;
notification of acceptance October 31, 2023.
Abstract only submission:
submission opens October 31, 2023;
submission closes March 4, 2024;
notification of acceptance April 15, 2024.
Full Paper submission:
full paper submission opens January 11, 2024;
full paper submission deadline March 4, 2024;
full paper notification of acceptance, April 15, 2024.

April 1, 2024, registration opens
April 30, 2024, early registration deadline
May 1, 2024, conference pre-proceedings
June 9-13, 2024, conference at Ischia, Italy

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