

## Call for Papers: Special Focus on Constraints and Optimization in Artificial Intelligence

Constraint solving and optimization algorithms are major themes in artificial intelligence. For decades, these themes have received great success on modelling and solving a number of real-world problems. However, with the development on Logistics & Transport industry and Internet enterprises, many new applications have emerged, where larger and more complex hard problems call for more efficient algorithms. Therefore, a new challenge arises: how to model and solve those large-scaled problems efficiently to meet the industrial requirements is a significant issue in artificial intelligence.

The purpose of this special issue is to provide a venue for new theoretical contributions of the satisfiability problem and constraint programming including satisfiability modulo theories, phase transition and computational complexity, as well as technical contributions including exact algorithms and heuristics algorithms, and new applications in industrial and commercial areas.

This special focus issue of Science China Information Sciences is devoted to publishing original and unpublished contributions to all aspects of research and development of Constraints and Optimization in Artificial Intelligence, with the intention of highlighting recent advances and challenges in this emerging research topic. The following is a non-exclusive list of topics relevant to the special issue:

- Large-scaled SAT/Max-SAT
- Satisfiability modulo theories
- Constraint programming
- Combinatorial optimization
- Local search and heuristics
- Automated optimization algorithm design
- Machine learning approaches for constraint solving
- Applications in industrial problems
- Evolutionary algorithms
- Optimization in machine learning and data mining
- Parallel/Distributed optimization algorithms

### Submission

Manuscripts should be prepared in the SCIS template, and should be submitted online through the manuscript submission system. The submission website is: <https://mc03.manuscriptcentral.com/scis>. You should choose Special Focus on Constraints and Optimization in Artificial Intelligence. Information and guidelines on the preparation of manuscripts are available on the journal website: <http://scis.scichina.com>.

### Important Dates

Paper Submission: May 5, 2020

Notification of Acceptance: July 30, 2020

Final submission: August 30, 2020

Publication: April 30, 2021

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