

SAT 2020

The 23rd International Conference on Theory and Applications of Satisfiability Testing

5–9 July 2020 - Alghero, Italy

<https://sat2020.idea-researchlab.org/>



SCOPE AND MISSION

The International Conference on Theory and Applications of Satisfiability Testing (SAT) is the premier annual meeting for researchers focusing on the theory and applications of the propositional satisfiability problem, broadly construed. In addition to plain propositional satisfiability, it also includes Boolean optimization (such as MaxSAT and Pseudo-Boolean (PB) constraints), Quantified Boolean Formulas (QBF), Satisfiability Modulo Theories (SMT), and Constraint Programming (CP) for problems with clear connections to Boolean-level reasoning. Many hard combinatorial problems can be tackled using SAT-based techniques including problems that arise in Formal Verification, Artificial Intelligence, operations Research, Computational Biology, Cryptography, Data Mining, Machine Learning, Mathematics, etc. Indeed, the theoretical and practical advances in SAT research over the past twenty years have contributed to making SAT technology an indispensable tool in a variety of domains.

SAT 2020 aims to further advance the field by soliciting original theoretical and practical contributions in these areas with a clear connection to satisfiability. Specifically, SAT 2020 invites scientific contributions addressing different aspects of SAT interpreted in a broad sense, including (but not restricted to):

- *Theoretical advances* (such as exact algorithms, proof complexity, and other complexity issues);
- *Practical search algorithms*;
- *Knowledge compilation*;
- *Implementation-level details* of SAT solvers and SAT-based systems;
- *Problem encodings and reformulations*;
- *Applications* (including both novel application domains and improvements to existing approaches);
- *Case studies* and *reports* on findings based on rigorous experimentation.

Affiliated Events

SAT 2020 will host a number of related workshops (July 5) and various competition events.

Paper Submission

Submissions to SAT 2020 are solicited in three paper categories:

- *Long papers* (9 to 15 pages, excluding references)
- *Short papers* (up to 8 pages, excluding references)
- *Tool papers* (up to 6 pages, excluding references)

Long and short papers should contain original research, with sufficient detail to assess the merits and relevance of the contribution. For papers reporting experimental results, authors are strongly encouraged to make their data and implementations available with their submission. Submissions on applications and cases studies are especially welcome. Such papers should describe details, weaknesses and strengths of the considered approaches in sufficient depth, but they are not expected to introduce novel solving approaches.

Tool papers must obey to specific content criteria. A tool paper should describe the implemented tool and its novel features. Here “tools” are interpreted in a broad sense, including descriptions of implemented solvers, preprocessors, etc., as well as systems that exploit SAT solvers or their extensions for use in interesting problem domains. A demonstration is expected to accompany a tool presentation. Papers describing tools that have already been presented previously are expected to contain significant and clear enhancements to the tool.

More details about scope, topics and paper submission are available at [SAT 2020 web page](#).

Important Dates

Abstract due: February 15, 2020
Paper due: February 22, 2020
Rebuttal phase: March 29 – April 2, 2020
Notification: April 18, 2020
Final paper due: May 3, 2020

Program Chair

Luca Pulina, University of Sassari
Martina Seidl, Johannes Kepler University Linz

Workshop Chair

Florian Lonsing, Stanford University

Publicity Chair

Laura Pandolfo, University of Sassari

