Conference Reports Column

by

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Conference report on STACS 2026

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Abstract

This report is made of two parts: one general report about the conference by the three first authors, and one more personnal report by the last author.

1 General report

The 43rd International Symposium on Theoretical Aspects of Computer Science (STACS) took place in Grenoble, France, from 10 to 13 March 2026. The conference was preceded on March 9 by a tutorial given by Tatiana Starikovskaya and Gabriel Bathie on *Regular languages recognition in restricted models of computation*. STACS 2026 consisted of two tracks. Track A, chaired by Meena Mahajan and Nguyễn Kim Thắng, focused on algorithms, data structures and complexity. Track B, chaired by Annabelle McIver and Florin Manea focused on automata, logic, semantics and theory computing.

Three invited talks were given during the conference by Martin Grohe (Query Languages for Machine-Learning Models), Laura Kovacs (Moments in Time: Algebraic Analysis for Solvable Loops) and Ola Svensson (Advancements in Online Edge Coloring Algorithms) which gave an overview of deep recent results in their relative fields and showed the diversity of the research in TCS.

The social activity consisted in a snowshoe outing in the mountains, and the banquet took place in the restaurant "Le Père Gras", on top of the Bastille, which the participants could reach by a scenic cable car ride above the city.

Business meeting Interesting statistics on the conference were presented during the business meeting. A total of 206 papers were submitted to Track A, of which 50 were accepted, resulting in an acceptance rate of 27% while 60 papers were submitted to Track B, of which 20 were accepted, resulting in an acceptance rate of 33%. The committee highlighted the very high quality of the submissions, which led to the conference being extended

by half a day (and even so, papers with excellent reviews were rejected). Researchers from around the world submitted papers to STACS. The six countries with the most accepted papers were, in descending order of accepted papers, Germany, France, the United States, the United Kingdom, Poland and Netherlands.

The PC consisted of 26 members in track A and 26 members in track B, in addition to 529 external reviewers. The vast majority of papers received three reviews.

STACS is a member conference of the TheoretiCS journal, and a status update about TheoretiCS was presented at the end of the business meeting.

140 people registered to the conference and, in addition, several local participants from Grenoble attended the conference. Some presentations were given as online live talks from remote speakers.

The best papers accepted at the conference will be invited to journals: seven to *ACM Transactions on Computation Theory*, one to *TheoretiCS* and some papers will also be invited to *Logical Methods in Computer Science*.

During the business meeting, the next location of STACS was announced. STACS 2027 will be held in Göttingen, in the center of Germany but also online, with the possibility to have remote talks. Like in previous years, there will not be any limit on the number of accepted papers that will be presented remotely.

2 A personnal report

General feedback I (Ugo Giocanti) went to STACS 2026 with one accepted paper, that has been presented by one of my coauthors. I am a postdoctorate researcher, and I also attended to STACS 2023 in Hamburg, from which I keep some very good memories. I did my PhD in Grenoble, and thus was eager to attend to STACS 2026 there. Just like for the 2023 edition, I liked most of the talks (both in invited and parallel sessions), and found the overall quality to be high. As a graph theorist, also interested in a couple of questions from other areas, I really enjoyed the opportunity to attend talks from other branches of Theoretical CS, and to meet and exchange with people who do not necessarily belong to my close area of research.

Some talk highlights Here is a small list of talks I particularly liked. This is of course biased by my research interests, and I also enjoyed all the other talks I attended.

- *Testing H-freeness on sparse graphs, the case of bounded expansion*, by Samuel Humeau, Mamadou Kanté, Daniel Mock, Timothé Picavet and

Alexandre Vigny (Track A).
I am biased on this one as I know the person presenting well. I really liked the talk, first, because the result seems of great interest, second, because I believe that one of the main proof ideas (a reduction to the bounded treedepth case) was exposed very clearly, even for an audience not necessarily familiar with the graph notions involved, and third, because the style of the slides was quite unusual.

- *Optimal Average Disk-Inspection via Fermat's Principle*, by Konstantinos Georgiou (Track A).
  This talk was very original, both in its content and in the very personnal way the author presented his result. He answered a quite old question about the "Disk-Inspection" problem, which he has been working on for some time. The most surprising thing was that the key idea to solve the general case came after he watched a vulgarization video on Fermat's Principle (of least time) and Snell's law on light refraction! I really enjoyed that such very old and simple principle from physics could find some application in 2026.

- *Efficient Compression in Semigroups*, by Alexander Thumm and Armin Weiß (Track B).
  The presentation was on straight-line programs and compression of semigroups, a topic that I did not know at all before (but still not unrelated to some questions I work on), and I really enjoyed that the presenter gave a clear presentation of this nice area. This is clearly a topic on which I'm now eager to know more once I'll find time for it, thanks to this presentation.