

CATCS survey report

1 Introduction and Background

In Fall 2020, a task force was convened by the SIGACT Committee for the Advanced of Theoretical Computer Science (CATCS) to investigate possible approaches to modifying aspects of the TCS community, especially our publishing culture, to enhance connections with other areas of CS and be as welcoming as possible to a broad range of contributions within theory.

This committee collected and synthesized feedback from the community via an online questionnaire. Several questions were concerning community opinions on conference format choices. Though the questionnaire focused primarily on FOCS/STOC, the committee was welcome to receiving any and all suggestions that would make the TCS community as broad and well-connected to other areas of TCS as possible.

Task force members:

- Erin Chambers (St. Louis University)
- Ken Clarkson (IBM Research)
- Sandy Irani (UC Irvine)
- Bobby Kleinberg (Cornell)
- Adam Klivans (UT Austin)
- Ravi Kumar (Google)
- Jelani Nelson (UC Berkeley)
- Yuval Rabani (Hebrew University)

The questions given on the survey were as follows:

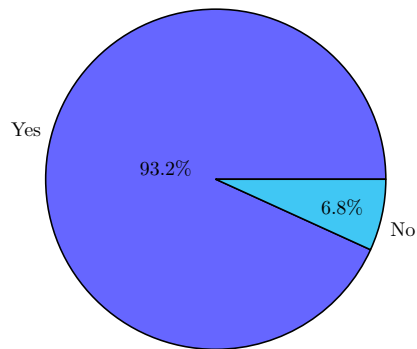
1. Do you consider yourself a member of the TCS community (broadly construed)? (if no, what is your home community?)
2. Do you regularly submit papers to FOCS or STOC (if no, why not?)
3. Do you regularly attend FOCS and/or STOC? (if no, why not?)
4. Do you believe that the TCS publishing mechanisms make TCS too insular, i.e. not as welcoming of new models, directions, and connections with other areas of CS as it should be?
5. Do you think the number of accepted papers at FOCS/STOC should be increased?
6. Suppose it was decided that the number of accepted papers accepted at FOCS/STOC would be increased. Which of the following would you be supportive of? Please select at least one. Note: checking any of the following does not imply you support increasing the number of accepted papers, but rather is asking what you would support if that were already decided.

7. Do you think either FOCS or STOC should have separate “tracks”, e.g. “FOCS Algorithms”, “FOCS ML Theory”, etc. Essentially this would impose lower bounds on the number of papers that appeared per area.
8. Do you feel that the typical structure/composition/mode of discussion of STOC/FOCS PCs contribute to insularity of TCS?
9. If you answered “Yes” to the previous question, do you have any improvements to suggest?
10. Do you think FOCS/STOC should switch to a virtual (online) format?
11. Please elaborate on any of your previous answers, or provide any other suggestions. Many of the questions above focused on potential changes to the format of conferences, but feel free to make any other type of suggestion related to the goal making the TCS community less insular.

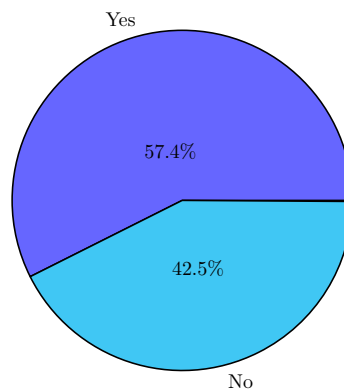
2 Data results

The total number of responses to the survey was 338. The breakdown of responses for each survey question were as below.

- Do you consider yourself a member of the TCS community (broadly construed)?

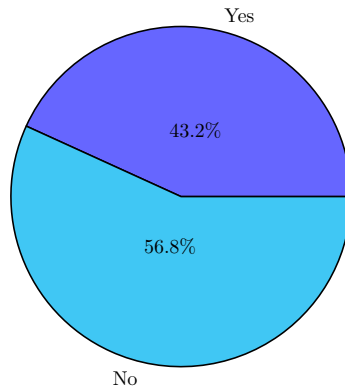


- Do you regularly submit papers to FOCS or STOC?



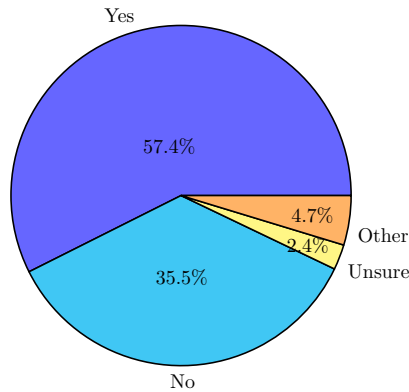
For those who answered no, there were several themes of answers given. A few strong themes emerged:

- My subfield is not appreciated was the most common answer, with over 30 indicating this. Examples of the subfields were highly varied, and included evolution, computational geometry, automata theory, distributed algorithms, crypto, and several others.
 - In a similar vein, 6 more responses mentioned that their work was too applied, and 4 said there was a wider audience available at other venues.
 - 9 people indicated they felt the accept rate was too low.
 - 7 responses indicated that simple/uncomplicated proofs were not likely to be accepted or appreciated at FOCS/STOC.
- Do you regularly attend FOCS and/or STOC?

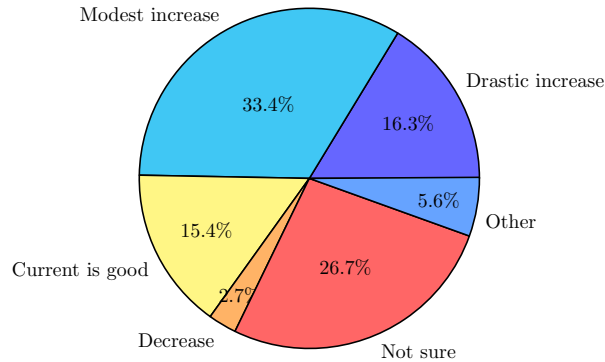


For those who answered no, several prominent themes emerged:

- 40 mentioned too much travel and/or cited the impacts of travel on climate change.
 - 36 indicated they did not have papers in FOCS/STOC.
 - 34 cited the expense as a reason not to attend.
 - 28 mentioned there being too few papers at STOC/FOCS that were of interest to them.
 - 11 cited difficulty of finding colleagues to socialize or network with in their area (or in general).
 - 8 people mentioned family constraints impeding their attendance.
 - 6 people preferred to attend more specialized conferences.
- Do you believe that the TCS publishing mechanisms make TCS too insular, i.e. not as welcoming of new models, directions, and connections with other areas of CS as it should be?



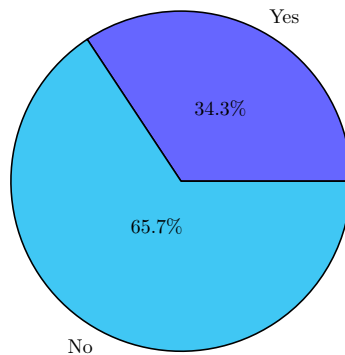
- Do you think the number of accepted papers at FOCS/STOC should be increased?



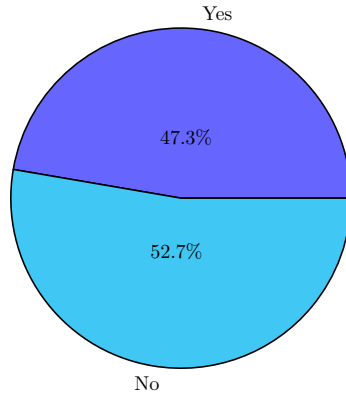
- Suppose it was decided that the number of accepted papers accepted at FOCS/STOC would be increased. Which of the following would you be supportive of? Please select at least one. Note: checking any of the following does not imply you support increasing the number of accepted papers, but rather is asking what you would support if that were already decided.

Top answers. (All other answers received less than 1% of votes.)

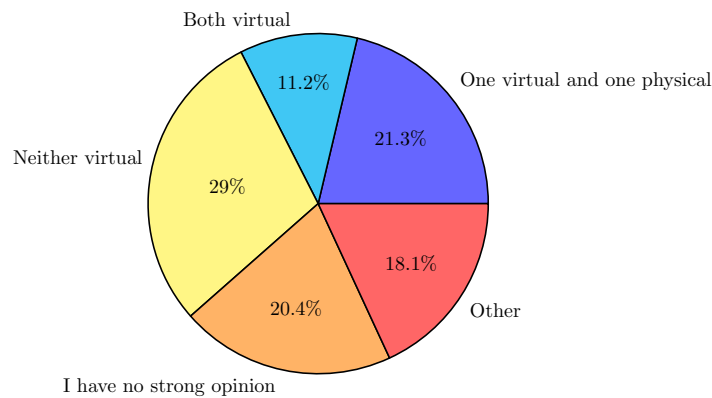
- Add parallel tracks so that talk lengths stay the standard 20 minutes. Selected by 56.4% of poll takers.
 - Expand the conference to four days. Selected by 55.2% of poll takers.
 - Eliminate all talks at the conference itself. Authors pre-record talks that are viewable asynchronously, and the conference schedules other activities (e.g. QA, plenary talks, etc.). Selected by 41.2% of poll takers.
 - Have a two or multi tier system: some "spotlight" papers get longer talk slots, but some either only get posters or short talks. Selected by 33.9% of poll takers.
 - Shrink all talk lengths to accommodate the increased number of papers, without increasing the number of parallel tracks. Selected by 16.7% of poll takers.
- Do you think either FOCS or STOC should have separate "tracks", e.g. "FOCS Algorithms", "FOCS ML Theory", etc. Essentially this would impose lower bounds on the number of papers that appeared per area.



- Do you feel that the typical structure/composition/mode of discussion of STOC/FOCS PCs contribute to insularity of TCS?



- Do you think FOCS/STOC should switch to a virtual (online) format?



Of the “other” answers, it is worth noting that most mentioned hybrid options, to support both in person and online presentation and attendance.

Aside from the specific questions above, there was a free-response prompt at the end of the survey:

Please elaborate on any of your previous answers, or provide any other suggestions. Many of the questions above focused on potential changes to the format of conferences, but feel free to make any other type of suggestion related to the goal making the TCS community less insular.

A number of write-in suggestions were then given by survey takers. Notable ones include:

- Increase number of papers and PC/paper diversity
- Broaden the PC and/or make it larger, and vary membership more often
- Travel and environment - virtual options?
- Extend or more parallel tracks
- New format ideas
- Double blind