April 21, 2010

Dear SIGACT Executive Committee:

Thank you for giving me the opportunity to make some advance comments on the proposal to change the role and structure of STOC.

First, and most important, I strongly agree that a "conference for everyone" of the sort described in the proposal, is indeed something the community urgently needs. Whether it is called "STOC," or something else, such a meta-conference would disseminate new ideas across currently-existing "area boundaries," would help to address the isolation of theory students and faculty in departments that do not prioritize theory, and would help to reduce academic provincialism within TCS itself.

Second, I believe it's important to emphasize that – regardless of any decisions to change structure, or keep it the same – the primary issue that needs to be addressed is *financial*, if the goal is participation from a significant cross-section of theory students and faculty. (And here I am interpreting "theory" broadly.) Unless attendance is affordable, attendees won't come unless they have a Publication, capital P. I certainly couldn't, much as I love theory – and my own publishing MO so far has been to take techniques from one area and apply them to a seemingly unrelated area, so I might benefit more than the "typical" researcher from attending a conference in which concepts from many different areas are being presented. So it's the money, honey: to guarantee attendees who will receive only "indirect" benefits (i.e., no new publication on the CV), there needs to be travel support.

I have a specific suggestion for implementation, as follows.

Background: I attended the 2009 PODC Steering Committee Meeting. There I saw a chart of PODC attendance over the last several years. The one year they did not include Brief Announcements, attendance was at least 30% lower than the years BA's were included.

Background #2: I am familiar with two conferences that combine experimental sciences with TCS: Foundations of Nanotechnology (FNANO) and DNA Computing and Molecular Programming (DNA). The suggestion I am about to make is related to how these conferences successfully operate. Both conferences accept more papers than they put in their proceedings.

Suggestion:
1. Accept all papers that lie above a minimum bar of correctness and interestingness.
2. From the accepted papers, the PC selects the best/most fitting, for publication in full in the proceedings. (10 pages)
3. All other accepted papers get 1-3 pages in the proceedings as an announcement of results, and each of these announcements has the word "Announcement:" at the beginning of the title, so it is clear in citations what is a full paper and what is an announcement.
4. Either all presenters get the same amount of time, or full paper presenters get slightly more time (e.g., 30 min instead of 20 min). Tracks are scheduled so that full papers and announcements are shuffled, so there's no overtly obvious "tiers," except for the Best Paper award winners.

Reasons to Adopt This:
1. It increases the publication draw, while maintaining the prestige of getting a full paper published in the STOC proceedings.
2. With more papers being presented – of a wider scope – there will be more reason for people to

attend even without a paper.
3. The conference program format therefore looks more like a conference in other scientific disciplines (the objective of the proposal) while maintaining the standard of an elite flagship conference (which I imagine to be a strong objection to the proposal).

Finally, I'd like to say that I've already seen this paradigm work well. Indeed, experimentalists often request not to appear in a DNA or FNANO proceedings (except for one-page abstract) because the publication culture in, e.g. nanochemistry, is that you can either publish in a conference or a journal, not both, and journals are better. So they report on results at the conference, and submit (often simultaneously) to a journal. We could have the same situation in TCS. Maybe a paper is "better suited" for CCC, DISC, ICALP B, whatever. An author could submit to STOC, and submit elsewhere as well. Many authors de facto already do this with both STOC and FOCS, so implementing my suggestion would recognize this reality, and make it into something positive.

I'm sure this will be a difficult decision. Best wishes.

Aaron Sterling