TACAS Program-Committee Chair Guidelines

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1. Introduction

Congratulations on being the TACAS PC chair, and many thanks for agreeing to undertake this responsibility. Our research community benefits tremendously when people like you devote their energies to producing high-quality conference programs and proceedings, and the Steering Committee is grateful to you for your efforts.

The purpose of this document is give you some advice about how to handle the various tasks, issues and groups of people that you will be faced with during your term as PC chair. Of course, you should always feel free to apply the following axiom:

"When in doubt, consult the TACAS Steering Committee!"

How is this done? The way to ensure the fastest response is to e-mail the entire committee. Those of us who are available will quickly discuss and try to respond within 24 hours, if not sooner. Of course, sometimes we will not be able to respond this quickly. In this case, in matters requiring "yes/no" answers and for which you have a definite preference, you should feel free to implement your desired course of action. For more complex situations, and for those which you need input, please do not be shy about repeating your request if you have not heard a response within 24 hours. You should also feel free to telephone a TACAS SC member if all else fails.

2. Overview

Here is an overview of the major tasks you and your co-chair (TACAS usually has two PC chairs) will typically need to handle. They are presented in roughly the order in which they arise; more discussion about each is given afterwards.

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[1] The Steering Committee would also like to acknowledge the contributions of past Steering Committee member Lenore Zuck to this document.

- Selection of Program Committee
- Coordination with Tools Chair
- Coordination with Competition Chair in years where there is a tools competition
- Nomination of invited speakers for both TACAS and the ETAPS "unifying speakers"
- Participation on ETAPS Steering Committee
- Review of submission-reviewing policies and procedures
- Selection, installation and configuration of submission-management software
- Review of call for papers
- Processing of submissions (regular, tool, case study)
- Oversight of virtual PC discussion
- Author notification
- Collection of final versions of accepted papers
- Delivery of "front matter" and final paper versions to publisher
- Preparation of program schedule, including selection of session chairs
- Conference management
- Special journal issue(s) for highly regarded papers

Some of these jobs will require coordination with the TACAS Steering Committee (TACAS SC); for example, the SC needs to approve the PC that you nominate. In addition, because TACAS is part of the European Joint Conferences on Theory and Practice of Software (ETAPS), some of the jobs will also require coordination with the ETAPS SC chair and local organizers. Indeed, you will sometimes have requests made to you directly by these organizers (nominations of invited speakers, for example). When you receive such a request, please let the TACAS SC know, and cc us on communications with ETAPS. This helps ensure that both TACAS and ETAPS policies are adhered to, and that all relevant parties know what is going on.

3. The Pre-PC-Meeting Tasks

The (virtual) PC meeting represents the first major milestone of your term as PC; the second is the conference itself, and the last one is the preparation of special issues devoted to papers presented at the conference. This section considers the "pre-meeting" tasks that you will need to undertake.

Of course, the very first thing you should do with your co-chair is decide on the division of responsibilities! There are as many ways to do this as there are personality types, as you may imagine. A good starting point might be for the two of you to review the tasks above and decide who will take the lead on each, and who will play a supporting role. Some of the larger tasks (e.g. moderating the PC meeting) should involve you both.

The remaining pre-meeting tasks are the following. Each is discussed in more detail in what follows.

- Selection of Program Committee
- Coordination with Tools Chair
- Coordination with Competition Chair in years where there is a tools competition

- Review of submission-handling policies and procedures
- Selection, installation and configuration of submission-management software
- Review of call for papers
- Participation on ETAPS Steering Committee
- Nomination of invited speakers for both TACAS and the ETAPS "unifying speakers"

Selection of Program Committee. This task is arguably the most important, since the PC members will shoulder most of the reviewing burden. The TACAS PC typically consists of 30-35 members, each of whom will review 10-15 papers. You should pay attention to ensuring a diverse group from both the perspective of topics covered and geographical representation. As a rule of thumb, it is good to select ⅓ to ½ of the committee from the previous year's PC; such members provide continuity and experience.

Perhaps unusually, the TACAS SC is also part of the TACAS PC each year. Again, this is to provide some continuity from year to year, and also to provide some institutional memory.

You will typically be asked to provide your PC by the ETAPS SC chair about 1.5 years before the conference. Before sending your list to the ETAPS SC chair, you should first send it to the TACAS SC for comment and suggestions.

Coordination with Tools Chair. As the TACAS name suggests, the focus of the conference is on tools. Since its inception, TACAS has reserved part of the program for tool demonstrations, accompanied by short papers in the proceedings. The Tools Chair is generally responsible for working with the ETAPS local organizers to ensure sufficient infrastructure at the conference to support the demos; the PC of course is responsible for selecting the tool presentations that will be part of the committee.

The SC selects the Tools Chair and will inform you of their choice. You may wish to include the Tools Chair on the PC so that they have insight, and input, into the tools papers being chosen.

Coordination with Competition Chair. In recent years TACAS has sponsored various tools competitions. The Competition Chair, generally nominated by the TACAS SC, oversees these competitions. You should check with this chair to see if s/he expects to have a paper in the proceedings describing the competition and its results.

Review of submission-handling policies and procedures. TACAS reviewing procedures and processes have evolved over the years into the following form.

- Authors submit abstracts, followed by full papers.
- PC members bid on papers to review.
- The PC reviews the submissions, often with the help of sub-reviewers.
- A virtual PC meeting is held in which PC members discuss the submissions and arrive at a decision regarding which papers to accept.

Details regarding this process may be found later in the document. In addition, TACAS adheres to standard guidelines regarding conflicts of interest, etc.

If you are interested in experimenting with alternatives to this general procedure (for example, adding a rebuttal phase to give authors a chance to respond to reviews), please consult with the SC first. We generally are open to well-justified innovation on these matters, but also want to ensure that the reviewing process remains fair and transparent, as well as consistent with ETAPS standards.

Selection, installation and configuration of submission-management software. A large part of your workload will be devoted to handling submissions and reviews of papers. Early on you should decide what software you would like to use for this purpose, and to configure it to handle aspects of the TACAS submission process (for example, bidding by PC members, the by-now standard practice of submitting abstracts a week in advance of full papers, etc.). Easychair (www.easychair.org) has become the more or less default software used by most ETAPS conferences, but you can use other packages if you wish; just be certain the PC members will be able to use the tool relatively easily. You should make sure that the paper-submission site is working before the official call for papers is released.

Review of call for papers. The call for papers (CFP) represents the key "marketing material" for the conference, and it has been carefully worked and reworked over the years. You will be asked by the ETAPS organizers at some point for the CFP you would like to use. You should review the version from the previous iteration of TACAS and note places where you think the wording should be changed. You should clear these changes with the TACAS SC before submitting anything that differs from the previous year to the ETAPS organization.

Participation on ETAPS Steering Committee. The ETAPS Steering Committee includes representatives from each conference, one of which is (one of) the PC chairs for TACAS. The ETAPS SC meets during the ETAPS week, but it also has e-mail exchanges beforehand on various topics.

Nomination of invited speakers. ETAPS conferences have traditionally been allowed to have an invited speaker; in addition, there are 1-2 "unifying" (i.e. ETAPS-wide) invited speakers during ETAPS week. One of the first tasks you and your PC will be confronted with is assembling a list of nominations for both the TACAS invited-speaker slot and an ETAPS-wide slot. The ETAPS organizers will let you know when they need the nominations; you should then assemble the lists (typically two nominees for each, in order), then forward them to the ETAPS organizers.

How should the lists be assembled? There is any number of approaches: some PC chairs will ask the PC to send nominations, then select a couple of names, then confirm with the PC. Others will pick a list themselves and ask for further nominations. The key is to make sure the PC has a chance to provide input; this will ensure harmonious relations later on. (And do not be alarmed if you get very little feedback initially! PC members often are busy, or shy, or both; do not interpret lack of feedback as a personal insult.)

4. PC Meeting Tasks

The PC meeting is obviously one of the most important responsibilities you and your co-chair will undertake. The final result – accepted papers, and the conference program – will play an important factor in the attractiveness of TACAS to potential attendees and will remain accessible and available to the public long after the conference is over.

Like most conferences, TACAS uses a virtual PC meeting format; papers are submitted electronically and distributed to the PC for review. After the review period is complete, the PC then engages in an electronic discussion to arrive at the final list of accepted papers. **You will be very busy during the discussion period!** Please be sure to minimize your other responsibilities during this period of time (typically two weeks).

The main tasks surrounding the PC meeting include the following.

- Processing of submissions (regular, tool, case study)
- Oversight of virtual PC discussion
- Author notification

The timing of these jobs is important, since the call for papers should include submissions deadlines that are ETAPS-wide as well as an author notification date that you should make every effort to adhere to. Here is a rough timeline for these tasks.

Abstract submission	Early October (decided centrally within ETAPS)
Full-paper submission	One week after abstract submission
Submission review period	5-6 weeks
Virtual PC meeting	10 days-2 weeks
Author notification	Immediately after the conclusion of the virtual PC meeting

It may be tempting to reduce the review period or PC meeting duration, but this is not advisable; these take more time than you may expect, since the PC members are generally juggling other responsibilities in addition to their participation on the PC. For this reason it is also a good idea to remind the PC members when the submission deadline is approaching. Of course, you are well aware of the deadlines, but the PC members, most of whom agreed several months ago to serve on the PC and may have not been that involved in the early planning, may have forgotten!

It is also a good idea to remind the PC members of the need for strict confidentiality during the review process. In particular, submissions should not be shown to non-reviewers, and information regarding specific reviews and acceptance / rejection decisions must be kept confidential until you inform the authors. Tempting as it is for PC members to tell their friends, or former students, or colleagues, about the status of their submissions, and what is being said about them, they must not do so. Only you should be revealing the results of the PC's deliberations to authors.

In many cases PC members will delegate the preparation of some reviews to sub-reviewers. This practice is acceptable, and can even lead to better reviewing. However, be sure to impress upon your PC members that when they delegate reviews, they are still responsible for ensuring that they agree with, and understand, the points made by their reviewer. They must also ensure that a sub-reviewer

has no conflict of interest with any of the authors on the paper they are reviewing and will not share the submission with anyone.

What follows is a more detailed consideration of the main tasks listed above.

Processing of submissions. As was noted above, TACAS has followed an "abstract-then-full-paper" submission model over the past several years. The first submission deadline requires authors to submit a title and abstract; the second deadline, one week later, is for the full-paper submission. Only papers for which a full submission is received should be considered for acceptance. In a typical TACAS submission cycle, about 80% of abstract submissions will have an eventual associated full paper. You can expect 100-150 full paper submissions, and thus about 125-180 or so abstract submissions.

The reason for this two-phase submission framework is to give you and the PC time to decide on assignments of full submissions to PC members, and also for PC members to declare any conflicts of interest they may have.[2] Generally, each paper should be reviewed by at least three separate people. At the same time, you should also strive to assign at most 15 papers to any given PC member, to avoid complaints about workload from the PC. These constraints can be in conflict in the event of a large number of submissions, in which case you will need to explain (nicely!) to the PC that you unexpectedly need to assign PC members more papers than you originally expected.

As a matter of policy, PC chairs should not submit papers to TACAS. Likewise, the Tools Chair should not submit tools papers to the conference, although in the past this person has been allowed to submit regular papers.

TACAS generally limits, to three, the number of submissions any individual may be a (co-)author of. Most of the time this is not an issue, but in the past there have been isolated instances of authors submitting more than three papers. In this case, please let the TACAS SC know; we will work with you to resolve the situation.

TACAS, like most conferences, uses a bidding mechanism to assist in paper assignments. Once the abstract-submission deadline has passed, you should immediately initiate the bidding process, which should be concluded a couple of days before the final submission deadline. Most PC members will respond in a timely manner, but some will not; sending one reminder to everyone to bid is a good idea, but do not stress if some do not reply. The bids are after all advice to you about the paper assignments, nothing more. If a PC member elects not to provide this information to you, then you should feel free to interpret this as an indicator that the PC member does not have strong feelings about which papers he or she is assigned.

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[2] Please note that as PC chair, you should also declare your conflicts of interest, and that you should not handle papers for which you have a conflict or influence the acceptance / rejection decision about them. This means in particular that you should not assign reviewers to such papers or participate in PC discussions about them. (As a concession to practicality in the mechanics of reporting the results of the review process, you may view reviews and PC discussion, suitably anonymized, for submissions for which you have a conflict, once final decisions have been made.) If both you and your co-chair both have a conflict on a paper, you should notify the TACAS SC, so that we can make alternative arrangements for processing the paper in this case.

Once the bidding phase is complete, you should make preliminary paper assignments so that when the full-submission deadline arrives, you can announce the assignments to the PC. Since not all abstract submissions will lead to full-paper submissions, you may need to rebalance the preliminary assignments you made on the basis of the abstracts. **Do this quickly!** The more time you give the PC to review submissions, the better.

Should you review any papers? To be fair, you should treat all submissions in the same manner during this review phase: you should either review every submission (excepting those for which you have a conflict of interest, of course), or none. Either approach is acceptable; the main point is fairness. Of course, in exceptional situations, such as the unresponsiveness of a PC member, even if you have elected not to review papers yourself you may need to handle some papers. In this case, to the extent possible, it is a good idea to delegate as much of this reviewing as possible to sub-reviewers.

After you have made the reviewing assignments, the PC will typically have several weeks to complete their reviews. It is a good idea to send out a reminder about the reviewing deadline a week or so beforehand, as some PC members will forget. Other PC members will also be late with their reviews; while this behavior is frustrating, please do not take it personally. Do of course feel free to send reminders to these reviewers. Do not, though, delay the start of the PC discussion for them.

You should expect some abnormal situations to arise that you will need to handle! Here are some (real-world) examples from previous TACAS conferences that involved discussion between the PC chairs and the SC.

- An author submits a full paper even though he or she did not submit an abstract.
  In this case the resolution was to let the PC chair decide, based on reviewing load, etc., whether or not to consider such submissions.
- An author submits an abstract for a paper that is still being considered by another conference.
  In this case, the practice was deemed acceptable; submitting a paper abstract was determined, after some discussion, not to be a double submission, provided the notification deadline for the first conference was before the TACAS full-paper submission deadline.
- An author submits the same abstract to another ETAPS conference (or another conference altogether).
  It was decided in this case that abstracts are not paper submissions, and thus that authors submitting abstracts to multiple conferences are not committing any ethical breach. However, the authors may still only submit their full paper to one conference at a time.
- An author submits an 18-page paper when the page limit is 15.
  In this case, the resolution was to leave this to the discretion of the PC chairs. In general the SC favors adherence to the stated rules regarding submissions but recognizes that there may be extenuating circumstances in some instances.

Situations similar to the ones mentioned above may arise in during your handling of submissions. In such instances, we encourage you to decide on what you would like to do, but also consult with the SC before taking action.

Oversight of virtual PC discussion. After the reviewing period finishes you should immediately start the virtual PC meeting, even if you do not yet have all reviews for all papers.

The purpose of the discussion is to arrive at decisions regarding which papers to accept and which to reject. Since the meeting is virtual, conducting it presents challenges that are absent in face-to-face meetings. PC members may be slow to comment; flame wars may erupt between PC members; progress towards decisions can be very slow. One of your key jobs will be to combat these phenomena, and to push the discussions in productive directions so that by the author-notification deadline, all decisions have been made.

One effective strategy for achieving this is to have as a personal goal a "daily decision" note in which you propose some papers for acceptance or rejection. Your initial proposal might be solely based on scores: papers with high enough scores are proposed for acceptance, while those with low enough scores are proposed for rejection. If your goal each day is to push discussion so that the lists may be added to, this helps focus your efforts as the PC chair. (You should present this proposal to the PC as an invitation for them to comment. If the consensus seems to support a given decision, then you can view the proposed decision as "made". If there is controversy, you may choose to leave the paper's status undecided for the time being.)

Of course, most papers will not have uniformly positive or negative reviews; there will typically be some supporters for most papers, but also some detractors. In this case, one good way to promote a resolution is to ask the "outlier" (i.e. the most obvious detractor or supporter) to initiate discussion about the paper. The other reviewers can then respond to these initial comments, and often a consensus will emerge as a result.

In some cases papers will have positive and negative scores, with no progress being made toward a conclusion. In such cases it can be helpful to enlist the services of an additional expert reviewer, as a means of encouraging the arrival at a decision. The reviewer need not be on the PC, although if they are not on the PC they should of course not be allowed to participate in the discussion.

Sometimes discussions among PC members may become heated. In some sense this is evidence of a positive situation: passionately held opinions can suggest a deep interaction with the material in the paper. However, emotions can become too strong on occasion, and comments can veer from discussions of the paper to personal attacks. You should be on the lookout for such scenarios, and should interact privately with the affected PC members to restore a constructive atmosphere.

Towards the end of the discussion you will typically have several papers that are in contention for a few slots. How you make these final decisions is up to you, but it is perfectly acceptable to take account of considerations beyond "quality" (since presumably the remaining papers are roughly comparable along this attribute). Balance of the program is also useful to consider at this stage; is there a topic that is over- /under-represented? Are there authors who are already represented in the program? Of course, you should be clear to the PC about criteria you use if you decide to make any unilateral decisions.

Sometimes papers will be accepted but with a stipulation that the final version be reviewed for some essential but easy-to-make correction. This process is sometimes called "shepherding," and it should be used with caution. In particular, the PC member who will conduct the review (the "shepherd") should be identified, and the issue that requires correction should also be clearly defined to the authors.

One final issue to be aware of is the presence of PC submissions. TACAS permits these for non-PC-chair PC members; they do require special care, however, since the PC members who submit papers should neither influence, nor be influenced by, their handling. For this reason, we recommend that no decisions about PC submissions should be announced until the very end of the meeting. This prevents PC members from trying to "guess" the status of their paper, based on the numbers of papers decided on and the results of other PC papers that might have been announced earlier in the meeting. For this reason, it is also advisable not to include any PC submissions in the decisions involving the final few slots in the program. In many PC meetings, these last slots are decided by listing the papers whose status is undecided and letting the entire PC comment on which should be accepted. This procedure cannot be followed if some of the papers still under consideration include PC authors.

Author notification. After the PC has arrived at its final decisions you should notify the authors. This should occur on the date specified in the call for papers. If the notification needs to be delayed for some reason then you should notify all authors about the delay no later than the notification deadline.

Innovations in the review process. The previous part of this section describes a typical TACAS PC meeting. Of course, there are other strategies that other conferences use, or experiment with, to arrive at good decisions: rebuttal phases (authors are given some small period of time to comment on reviews before the PC discussion starts); white-balling / black-balling (each PC member gets 1-2 unilateral decisions he or she can exercise); etc. In general, it is desirable to maintain consistency of the TACAS review process with other ETAPS conferences, but we are willing to consider well-justified innovations. However, if you do wish to try significant deviations from the process outlined above, please consult with the TACAS SC first.

5. Proceedings and Final Program

After the PC meeting has concluded and the authors have been notified of the acceptance / rejection decisions, your next task is to prepare the proceedings and program. The specific tasks you need to complete are the following.

- Collection of final versions, including sources, of accepted papers, together with copyright agreements if not handled directly by the publisher
- Delivery of "front matter" and final paper versions to publisher
- Preparation of program schedule, including selection of session chairs

Collection of final versions of accepted papers. Authors of accepted papers should be given 3-4 weeks to send you their final versions. Some will ask for extensions; others will ask for extra pages; yet others will want to diverge from the publisher's guidelines formatting. Generally, it is good to be polite but firm in such situations: no extensions, no extra pages, no formatting deviations. Authors should submit

PDF files of their final papers, together with any source files (Word, LaTeX, etc.) used in their preparation. The publisher of the proceedings may also ask for your help in collecting copyright assignment forms. Generally speaking, the publisher should be encouraged to collect these themselves, since the agreements constitute a legal contract between the publisher and the authors. However, you may consider assisting the publisher if he or she asks for help.

In some cases authors of accepted papers may want to change the title of their paper. In other cases, some may want to add new authors. Generally speaking both of these practices should be discouraged, although there may be situations where they are reasonable (for example, a reviewer may have suggested a title change). In any event, you should verify that the titles and author lists are the same as those of their submissions, unless the authors have convinced you that a change is needed.

In rare circumstances, authors may also try significantly to alter the content of their paper, beyond changes suggested by reviewers. This should also be discouraged; the material that is published should maintain fidelity with what was reviewed by the PC.

Delivery of "front matter" and final paper versions to publisher. You will also be responsible for preparing the "front matter" for the proceedings volume. This front matter typically includes an introductory statement from the PC chairs, as well as a table of contents and list of reviewers. Some volumes also include an author index. You should verify with the publisher what form they want these documents in, and how much of the information (e.g. page numbers) they will generate automatically.

What you include in your introductory statement is up to you and your co-chair, but it is generally good practice to include mention of the number of submissions accepted papers, and to thank the PC for their hard work.

Preparation of program schedule, including selection of session chairs. You will also need to prepare the program schedule, including the grouping of papers into sessions, and the ordering of the sessions. The order of papers in the final proceedings should match the order of the papers are presented. You should double-check the talk titles and author lists to ensure that there are no name misspellings or typographical errors in the titles. Remember, the program will live long after the conference is over, including any embarrassing oversights in its content!

The selection of session chairs need not be completed before the proceedings are sent to the publisher, although if they are then the session-chair names can be included in the table of contents. In addition to PC members, you may ask members of the TACAS SC about their ability to serve in this capacity.

6. The Conference

Finally, the conference has arrived! The program is in place, the session chairs have been identified, and it is time for the authors of accepted papers to present their results.

Your work is not yet done however; you and your co-chair should plan on attending the sessions to make sure the session chairs appear, and be prepared to assume this responsibility in case a session chair is absent. At the beginning of the conference you should also introduce yourself to the local

arrangements chair, and to the people in charge of audio-visual infrastructure, so that in case of an issue with a meeting room or projection equipment you know whom to notify to resolve the issue. (Of course, the local arrangements committee has the ultimate responsibility for these matters, so your role here is strictly auxiliary.)

The Tools Chair should have primary responsibility for ensuring that the tools sessions have adequate infrastructural support for tool demos. It is nevertheless a good idea for you to make contact with the Tools Chair at the beginning of the conference so that you both understand this.

Also during the conference the ETAPS SC will meet, and you should plan on attending this event.

7. After the Conference

Once the conference is over you are nearly done with your responsibilities, and you can return to your normal life. The only remaining task involves:

- Special journal issues for highly regarded papers

TACAS generally has a special section in an international journal for "the top" 4-5 papers. The conference has a long-standing relationship with one journal in particular – Springer's *Software Tools for Technology Transfer* – and the special sections to date have appeared in this journal. Recently, other journals have contacted the TACAS SC about the possibility of special sections devoted to TACAS papers as well. Deciding which of these journals to work with is a decision that the SC will make, with input from you, of course. Once it is decided which journal(s) to have a special section in, you can then nominate the papers you believe are good candidates for expansion into journal versions. It is a good idea to consult the PC on this point, although do not expect much feedback: the PC is also tired after this long process. The journal is also likely to ask for your assistance in editing the special section.

8. In Conclusion

You have done it! You survived the grueling, but oh-so-important, task of chairing the TACAS Program Committee. You should be proud of this achievement, and also know that you have performed an invaluable service for our research community by doing so. Thank you very much!

9. Other Resources

Other conferences have also prepared guidelines for PC chairs, and some of these are listed here, as they contain ideas that may be useful to you as you run the TACAS PC. Of course, each conference is different, and not every piece of advice given in these is necessarily desirable or applicable. As of the writing of this set of guidelines, the Principles of Programming Languages (POPL) community has such a document; it may be found at http://popl.mpi-sws.org/PrinciplesofPOPL.pdf (and if it is not there when you look, Google may help). Programming Languages: Design and Implementation (PLDI) has a similar document at http://www.sigplan.org/sites/default/files/PracticesofPLDI.pdf. Finally, Michael Hicks wrote an overview of the process he used to run the POPL 2012 PC meeting; the paper appeared in SIGPLAN Notices and is available on-line at http://www.cs.umd.edu/~mwh/papers/popl12recap.pdf.