

A Handbook for [ECOOP] PC Chairs

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Abstract. These notes describe how I organized the selection process for ECOOP. In particular they contain a list of tasks that are responsibility of the Program Committee (PC) chair before, during, and after the selection, as well as a description of the six-phases organization I used for selection.

Background. In these notes I summarize my experience about chairing ECOOP. Initially, I started them as a simple personal memorandum and vademecum to help me during the chairing task. As they grew in size and were enriched by external feedback, they became a sort of handbook that I intended to pass to my successors in order to spare them some head-aches (this is why the prose addresses to a future PC chair). Finally, several persons spurred me to make them available to a wider audience, which is why you find them in the “front matter” of the proceeding of ECOOP 2013. Whether you are a future (not necessarily ECOOP’s) Program Committee Chair in search for new ideas and suggestions, or just a reader curious to know the behind-the-scenes of a program committee, I hope you will enjoy this reading.

Overview. For the future or soon-to-be PC chairs I want to stress that these notes are not intended to impose any particular organization of the PC but just as an help, to speed up the process and remind of a few points that may have been forgotten or overlooked. In particular you will find a lot of information that is missing from the *ECOOP PC chair FAQ* in the AiTO Handbook [1]. I would like to suggest you considering the way I handled PC submissions (Section 4) and organized the selection (Section 3), since I received positive returns on both of them. Of course, you have complete freedom to organize your PC as you like. Just, enrich these notes with your experience (I will be happy to provide the sources of this handbook) and pass them to the next PC chair.

The content of these notes is organized in four sections:

1. How to fix the dates
2. How to form a PC
3. How to organize the phases of the selection process
4. How to handle submissions of PC members

1 How to fix the dates

The first task of the PC Chair is to fix the following dates: (a.) submission deadline; (b.) rebuttal phase; (c.) PC meeting; (d.) notification; (e.) camera ready version.

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a. Submission deadline: Although long-standing conferences have their deadlines in well-established time spans, you must nevertheless check that there is no overlap with the selection phases of related conference.

For ECOOP the submission deadline is traditionally in December.

Criteria: if possible (i) *at least* one week (but 10 days are better) after ETAPS notifications (ii) not right before Christmas holidays since external reviewers are then hard to find (rule of thumb: no later than December the 15th.)

I strongly suggest to make this deadline (as well as the other dates) **strict**. Two expedients should help to maintain strictness: (1) explicitly state the strictness of the deadline in the call for paper and on the submission site and (2) put enough time between your submission deadline and the notification dates of related conferences (*eg*, for ECOOP, the notification dates of ESOP and FoSSaCS) so to have a safety cushion in case that any of these conferences does not respect its notification date.

b. Rebuttal: At least 7 weeks after the submission deadline. Reports must be available at least 9 days before the beginning of the rebuttal (safety for late arrivals, important time for a preliminary discussion on conflicting reports and for asking further external reviews to unravel these conflicts and/or to ensure at least one expert review for each paper: see the *Pre-rebuttal roundup phase* in Section 3); five days for bidding, two for assignment, one week for finding external reviewers and 4 weeks for preparing reviews. For ECOOP, however, consider that there will be Christmas holidays in the middle, so 8 weeks would be safer. Also avoid deadlines that are a couple of days before Christmas unless you are ready to accept that few PC members will complete their bids.

Set the rebuttal so that it includes at least one week-end day and one work day. Take into account time zones: make rebuttal start in the morning of Auckland and end in the night of San Francisco so that everybody has about the same amount of daylight to work on the rebuttal.

Rule of thumb: 7 weeks after submission deadline excluding holidays.

c. PC meeting: If you organize a physical PC meeting —as customary for ECOOP—, then block a complete week at least twenty days after the end of the rebuttal. After you formed your Program Committee consult it to choose a couple of days in that week. You may use less than twenty days if you decide not to implement the *Middle round phase* of the reviewing process described in Section 3.

d. Notification: At least 3 days after the PC meeting, so that PC members have the time to travel back and update their reviews (though you'd better ask them to update their reviews during the meeting).

If you decide not to have a physical PC meeting and to carry on selection on line, then notification must be set at least four weeks after rebuttals

Remark: it is important to meet the notification deadline. Other conferences may have set their submission deadlines in function of your notification date.

In particular, for ECOOP, check that your notification deadline leaves a couple of weeks of margin to set the OOPSLA deadline (usually mid-April).

e. Final version: Springer requires camera ready to be sent 9 weeks before the start of the conference. So set the deadline for final versions *at least* 10 weeks before it. If your conference uses a different publisher, then check with it.

2 How to form a PC

Forming the PC is a delicate matter and it is advised to consult previous PC chairs for suggestions and advice, especially on the reliability of persons. In forming your PC you have to take into account different factors listed below.

a. Reliability of PC members. If you are a PC chair you have probably participated in a number of PC meetings already, so you know a good deal of people who are (or are not) reliable. I can never stress enough that in choosing a PC member, reliability is far more important than visibility. Ask previous PC chairs about particular persons they would recommend to include or exclude from the PC. Ask PC chairs of other conferences or persons you know for further confirmations if needed.

b. Spectrum. Make a list of areas your PC should cover and make sure you have two or three experts for each area. This list is very important since you will use it to assign papers (those that did not receive enough bids) and to form thematic discussion groups (see the *Middle round* phase in Section 3). **Rule of thumb:** enrich/modify the list of the previous edition (a lot of knowledge was already poured in it).

The geographical distribution of the PC members should be related to the geographical distribution of the authors who typically publish in your conference. Consider however that in case of a physical PC meeting (as it is tradition for ECOOP) members will be required to travel to attend the PC meeting, thus limit the number of PC members who have to travel more than 6 hours to attend it. Try to balance nationalities and consider gender representativity (as long as these aspects do not hinder scientific criteria). Try to add some “fresh blood”: *at least* two or three young and brilliant researchers will be a real bonus, especially in a physical PC meeting, and so will few experienced researchers who were never invited to the PC before.

c. Statistics. Use previous editions’ statistics about the spread of topics in submitted and accepted papers. Of course, put in your PC more experts for topics that attract more submissions. And prepare statistics for the next PC chair.

A great tool to help you to prepare you PC is Frank Tip’s PC-miner tool [2] which allows you to query a database of past publications and PC members of several conferences, among which is ECOOP. So for instance you can select all people that published at least 5 papers in ECOOP or OOPSLA but haven’t served on the ECOOP committee yet.

d. Planning. When you send the invitations to take part in the PC you should include a clear plan and a list of commitments for the work ahead:

- Are submissions by PC members allowed? If so, outline how their selection will be organized and which criteria will be used (see Section 4).

- Ask for a strong commitment to be present at the PC meeting. The presence of all PC members at the meeting is **really** important so do not hesitate to insist on it.
- Expected work load:
 - Include a description of the phases of reviewing process and ask for commitments about availability for discussions.
 - Make it clear that there will be a rebuttal phase and that it is very important that external reviewers will be aware of it.
 - Describe the conflicts of interest
 - State your position about the use of external reviewers

For what concerns external reviewers I am quite in favor of using external reviewers. Actually, I suggest to ask every PC member to add to its personal review the review of an external reviewer whenever (s)he cannot produce an “X” (for eXpert) rated review (see the beginning of Section 3 for the classification of the reviews). While in principle this should ensure that all submissions will have an expert review, in practice this will not happen; nevertheless, this recommendation will reduce the number of reviews you will have to ask during the *Pre-rebuttal* phase (see Section 3).

As a side note, I suggest to send to PC members as few emails as possible and to repeat all important information in every mail: **never** assume that if you wrote something in a mail, then every member of the PC knows it (my personal experience was that many of the important pieces of information I wrote in my mails were missed by one or two members, not always the same ones).

f. Special PC members. Ask the steering committee to let you know the name of the next PC chair as soon as possible (before the paper submission deadline you can add to and remove from your PC as many members as you need) and invite her/him to join your Program Committee: it will be a very useful experience for her/him.

For ECOOP, it is a tradition that you invite to your ECOOP 20xx PC the PC chair of OOPSLA 20xx-1 (minus one, so if you chair ECOOP 2023, invite the chair of OOPSLA 2022 ... if both conferences still exist).

3 How to organize the phases of the selection process

Traditionally ECOOP follows the *Identify the Champion* policy [3]. In a nutshell, reviewers classify each submission from A to D with the meaning A: I will champion this paper at the PC meeting (advocate/accept); B: I can accept this paper, but I will not champion it (accept, but could reject); C: this paper should be rejected, though I will not fight strongly against it (reject, but could accept); D: serious problems, I will argue to reject this paper (detractor). Reviewers also classify their own expertise from X to Z (X: I am an expert; Y: I am knowledgeable in the area, though not an expert; Z: I am not an expert, my evaluation is that of an informed outsider). Then at the PC meeting only papers that are championed (at least one A) and without detractors (no D) are accepted: the discussion at the PC meeting is there to verify whether a submission satisfies these conditions. Oscar Nierstrasz explains in [3] how to prepare and organize the discussion for the PC meeting to implement such a policy.

Inasmuch as crucial the PC meeting is, it is only one of the several phases in which the selection process is organized. Your main role as a PC chair is to organize the reviewing process so that the decisions are taken on rational grounds. You can organize it as you think it is better, but here you are the methodology I followed for ECOOP 2013.

I organized the selection process in six phases: 1. Reviewing, 2. Pre-rebuttal roundup, 3. Rebuttal, 4. Middle round, 5. PC meeting, 6. Post meeting.

Phase 1: Reviewing

Ask PC members to return reviews as soon as possible and, in any case, *no later than 9 days before the start of the rebuttal phase*. Then

- As soon as the reports are in you should read them and try to clarify issues.
- You should spot reports that attribute a note without justification and ask the PC member responsible of the report to elaborate. Likewise, ask politely PC members who confuse review reports with Twitter tweets (and their 140 chars limit) to expand their reviews and give more details: explain that these are not just their personal notes for the PC meeting but must allow the PC chair and other persons of the committee to form an idea about the paper without reading it.
- You should check, as far as possible, that PC members are consistent in their evaluations.

The reviewing phase needs some preliminary organization, in particular you must prepare review forms and instructions so as it is clear that:

- there is a rebuttal phase and thus (1) deadlines are strict and (2) reviewers may ask direct questions to authors;
- PC members that cannot prepare an eXpert review should ask a further review to external *expert* reviewers;
- there will be specific periods in which external reviewers may be contacted again for further information.

Phase 2: Pre-rebuttal roundup

Pre-rebuttal roundup is the phase that takes place between the deadline for returning reviews and the start of the rebuttal phase. It is a crucial phase that will greatly influence the quality of the reviews you will work with and, thus, of your final program. I suggest to reserve 9 days for this phase, which must be used to:

1. ensure that every paper has at least 3 reports and at least an expert review and assign additional external reviewers if they do not.
2. smooth away divergences before rebuttals: ask reviewers with diverging opinions to react to each other reports (anonymized, for external ones). Assign external reviewers for further opinions.
3. [optional] start rejecting papers (personally, I prefer to do it in the *Middle round* phase, since I want to read rebuttals before taking any decision).

Last but not least this phase is an important safety cushion against late reviewers.

Rationale for a roundup of 9 days. In my opinion 9 days are the perfect delay: if you have to ask an extra review you can ask the external reviewer to prepare it in a week so that it will be available for the rebuttal or, if that is not possible, you can ask it in 3 or 4 weeks so that it will be ready for the PC meeting.

The first two days of this phase are crucial: you must try to spot most of the papers that need further reviews and send the corresponding requests to external reviewers in these two days.

It is *very important* that in this phase you carefully supervise the choice of external reviewers and monitor their work: ask for suggestions of external reviewers to all the PC members allocated to the paper and select the reviewer with them by a (very short) online discussion. In this way you will have the highest chances to get high quality external reviewers for all papers that need them.

Phase 3: Rebuttal

This phase will be a welcome pause in your activity.

- use the time of this phase to prepare the thematic groups for the next *Middle round* phase (see below).
- although several PC Chairs put a length limit on rebuttals because they are afraid to be obliged to “read a second paper”, three past experiences where a limit was not imposed (ESOP 2011, POST 2012, and ECOOP 2013) suggest that it may not be useful to limit the length of the rebuttal, it suffices to ask (I suggest, firmly) authors to be concise and remind that the attention span of tired PC members will probably be not much longer than a few hundreds words.
- once the rebuttals are entered, try to spot not only the questions that were answered but, above all, the questions that were not answered.

Phase 4: Middle round

Exclude all papers that are very weak or very strong (and any PC member paper), and organize the remaining papers in *thematic groups* (alternatively you may decide to include in the thematic groups strong papers, too: see below).

Assign PC members to each group (asking for volunteers is neither fair nor appropriate and, probably, useless) provide some preliminary comparison in few synthetic points of the papers in the group and ask the PC members to assess the papers in their group. Assessing the papers of the group means:

Browse (skim, have a quick look at) the papers, read the reviews, the rebuttals and the online discussions. If the reviewer feels competent on some paper of the group, then (s)he is *very* welcome to write an additional review. The aim is that for the final decision reviewers shall be able to give a (rough) relative ranking to the papers in their group.

The goal of thematic groups is that the best papers of each group should be accepted so as to ensure a good balance of topics and that all the spectrum of the conference is covered.

A secondary goal is to avoid to have at the PC meeting the classic 30mins-I'll-give-a-look-at-it reviews (I always feel uneasy with them). Other advantages are that with thematic groups PC members have a broader vision of the papers that will be discussed. And there is a core of few fixed persons that have a view of *all* undecided papers in a particular thematic area. In some sense you want to distribute over the whole PC the global vision that otherwise only the PC chair can have.

In my case I organized the papers in 7 thematic groups formed of 6 to 9 papers and assigned 4 PC members to each group. PC members were assigned to groups so as to maximize the number of papers they already reviewed in the group. The rationale is that this should have a strong correlation with their bids and experience (the more the papers they have in a group the more likely that they bid for those papers and that they are experts in the topic). In any case do not expect to achieve a fair distribution.

Rationale: whether to include strong papers in the thematic groups is a matter of trade-off. If you include them, then each group member will surely have a better vision of the theme, but in this way you also increase their charge of work and thus decrease the time they can spend on undecided papers. I preferred not to include strong papers in the thematic groups in the middle round phase.

Use also this phase to briefly discuss every weak paper (only C and D) and check whether everybody agrees not to discuss it in the PC meeting.

Finally, this phase is also used to decide submissions of PC members (see Section 4).

Phase 5: PC meeting

Exclude papers that have only C's and D's (you should have already agreed on that in the previous phase) and discuss all the others.

Plan 10 minutes of discussion for each paper and add one hour of buffer (if everything goes as planned, then PC members will use this time to update their reviews before leaving, otherwise you will be happy to have planned this extra hour). I strongly advice to ask somebody external from the PC to help you to keep track of the results of the discussion (you won't be able to do it during the meeting).

For the order in which papers are examined *Identify the Champion* [3] suggests to proceed from the best to the worse.¹ Frank Tip suggests to adopt a random order, instead. He gave me the following reasons:

I have done this at ISSTA'11 and PLDI'12 and I found it is better, because PC members won't automatically expect that the next paper will be accepted/rejected just because the previously discussed one was.

¹ A paper is in the class XY if its higher score is X and lower score is Y and classes use the lexicographic order.

I actually followed a mixed order. I grouped the papers to be discussed according to the thematic groups I used in the middle round (to which I added the strong papers) and then discussed the papers in each group ordered by their scores².

In my opinion this organization of the discussion in thematic groups has several advantages and a big drawback. The first advantage is that you will discuss papers on similar topic and with a consistent group of PC members. Second, PC members can profit that the discussion is on groups far from their expertise to take a little pause (typically to update their reviews or just to catch their breath: do not underestimate tiredness). Third, the rotation of thematic groups avoids the problem singled out by Frank Tip in the remark above. The big drawback is that according to the results of the first groups you will see that PC members will start panicking about the fact that the committee is accepting too many or too few papers. Therefore, this discussion order puts on you the burden of controlling all along the discussion that the final acceptance rate will be compatible with the format of the conference.

For the order of discussion of the groups you will not have much choice: it will depend on the PC members who are absent, leave earlier, arrive later, and if and when they can connect via video-conference. Rule of thumb: two or three PC members absent that leave in a close time zone, you can handle it (by video-conference); two PC members who live in a time zone 9 hours far from the place of the PC meeting, it gonna be tough; three of them absent and you can forget any reasonable organization.

In any case the order must be established at the beginning of the meeting so as people has time to prepare themselves for the discussion of the next paper. I distributed summaries for the whole discussion order and customized for each PC member (no excuse if you catch them distracted).

Finally, you will probably notice that your committee will use a slow the pace for the discussion at the beginning of the PC and tend to accelerate it at the end (because of tiredness). You must make sure that this will not happen so as to ensure a fair discussion to all papers.

A final word on organization. Logistics must be flawless since you cannot afford any delay in the progress of the meeting: choose a large room³ with good wifi network and two (possibly, ceiling-mounted) video-projectors with their screens; test everything at least one week before the meeting (wifi, video, acoustic, videoconferencing) and send PC members their wifi passwords in advance; install enough power plugs for all PC members (rule of thumb: one and a half power plug for each PC member) and, if possible, have some plug converters ready for those who forgot it at home or at their hotel; have a back up for every important piece of hardware (laptop, wifi access point, omnidirectional microphones, web-cams, video-projectors) and configure them so that they are ready for use; make available at the meeting printed copies of all papers and of all im-

² I used the lexicographic order of (the alphabetically ordered juxtaposition of) their scores.

³ To sit in a round 30 PC members (actually, in a U-shaped configuration with the video screens at the open side of the U) you will need a room for 60 persons (possibly not oblong).

portant information (eg, discussion order, wifi passwords); do not neglect catering. Try to anticipate as many problems as possible, though problems will arise all the same.⁴

Phase 6: Post meeting

Once decisions are made, give 3 days to PC members to update their reviews so as they reflect the discussions in the PC meeting. However, Sophia Drossopoulou (chair of ECOOP'10) strongly suggests to ask PC members to update their reviews immediately after the meeting when memory is still fresh (the 3 days are just for safety) while James Noble (chair of ECOOP'12) strongly suggests to have it updated **during the meeting** (I did as suggested by James and the thematic group discussion order helped a lot in doing that).

You can send acceptance/rejection notifications right after the meeting and send the revised review reports a few days later.

Also if, as for ECOOP, you have/want to assign a best paper award, I suggest to do it by e-mail few days after the PC meeting using an *Election by Majority Judgment* [4]. In practice, make a list formed by half of the accepted papers that received the best scores (PC member papers excluded) and send it to PC members together with the following instructions:

- 1) *Consult the joint list of XX papers (these are the accepted papers that received the best score from which I removed PC papers).*
- 2) *Pick as many papers in the list as you want. These papers must be chosen either because you think that they merit the award or because you think that they do not merit it.*
- 3) *Assign to each paper you chose a score from -2 (worse) to +2 (best) with the following meaning:*
 - +2 It definitively deserves the award,*
 - +1 A nice paper that may be awarded,*
 - 0 I'm neutral on this paper / I do not know,*
 - 1 I am mildly against awarding this paper,*
 - 2 It must not be awarded.**[not picking a paper is equivalent to give a score 0 to it]*
- 4) *Return your list of papers with their scores within a week*

Then you sum all the scores of each paper and pick the paper with the highest score. Do not forget to notify the decision to all the persons concerned (above all the sponsors of the award: for ECOOP it is Springer).

4 How to handle submissions of PC members

Personally I am against PC member submissions because it does not seem fair to be judge and judged at the same time (whatever safety policy you impose) and I did not

⁴ I spent two days testing everything and nevertheless the day of the meeting I discovered that one of the two wall screens of the room had been removed overnight: fortunately the painting on the wall was clear enough to project on it.

and will not submit to a conference in whose PC I take part in. However, there is a tradition in ECOOP to allow them. Actually, this is explicitly stated in the AiTO FAQ for ECOOP [1] that I quote:

Q: Are PC members allowed to submit papers?

A: Yes, though the PC chair should not. PC papers are handled specially. The authors should not learn who reviewed their papers, and should leave the room when their papers are discussed at the PC meeting. Normally PC papers should be accepted only if they are of “above average” quality. In practice, this means that PC papers are rejected automatically if there is any objection from one of the referees.

Furthermore there is a current trend in top-notch conferences to allow PC members to submit and use an External Reviewer Committees to handle them (*eg*, PLDI, POPL, OOPSLA). A couple of arguments also argue in favor of PC submissions:

1. Forbidding them would exclude a significant number of well-qualified leaders of the community from submitting (in ECOOP 2013 the submission that had the highest score—five A’s—was coauthored by a PC member).
2. Persons that have a number of students who have work that they will be likely to submit to your conference may decline the invitation to take part in the PC. This would deprive the PC of the expertise of some leaders of the community.

Now, how to organize the review of PC member submissions? If you established an External Reviewers Committee (ERC), then this seems an obvious choice. For the rationale behind the ERC see Steve Blackburn’s post on the subject [5]. I strongly prefer not to use an ERC since I do not want to limit a priori my choice for external reviewers.⁵

In ECOOP 2013 I established a different policy according to the following principles:

1. The policy to be followed for PC papers must be clearly and unambiguously established before submission time. I would say it will be the first thing that the PC will discuss. By discuss I mean, you have to propose a policy and *may* ask for suggestions of possible modifications to be sent directly to you: you then will synthesize them. Bottom line: avoid an open global discussion on such a delicate topic.
2. For what concerns the acceptance of a PC paper, after discussing it there must not be the slightest doubt that the PC paper deserves ECOOP publication.
3. Acceptance/rejection must be decided **before** the PC meeting (by e-mail, telephone, VOIP, ...). The reason for this (which I consider to be a key ingredient of the selection of PC papers) is threefold:

⁵ Many people, whose opinion I highly regard, disagree with me on this point. Nevertheless I believe that if you stick to two points that I suggested in this handbook, namely, (1) ask PC members to find external expert reviewers when they cannot prepare an eXpert review themselves (*cf.* point *d* in Section 2) and (2) carefully supervise the choice of external reviewers in the pre-rebuttal phase by deciding their selection together with the concerned PC members (*cf.* phase 2 in Section 3), then you should obtain reviews of a quality higher than with an ERC.

- (a) the quality of a PC paper must be established in absolute terms (we must be completely sure that if we take a PC paper it will not take the slot of a better paper discussed later in the PC meeting: this is the reason why they must be excluded from thematic groups, *cf.* phase 3 in Section 3),
- (b) I want to avoid people entering/exiting the PC meeting room, and to have a discussion about a paper of a person that 30 seconds before was sitting at the same table and is now waiting outside the room,
- (c) PC members with a submitted paper can discuss other papers freely without ulterior motive about how the discussion might influence the decision on their paper (unfortunately, that happens too, as Ken Birman confirmed me) since this decision is already taken.

Important: try to schedule the time for discussing PC papers right after the assignment (or, in any case, as early as possible), because it may be quite difficult to find slots that fit everybody, especially if you want to hold a voice discussion. Also, try to have it in the first week after rebuttal and in any case as soon as possible after it: it is a good thing to leave some time between this decision and the PC meeting.

- 4. Acceptance/rejection of PC papers will be communicated **after** the end of the PC meeting with all other notifications, so that a possible rejection of their paper cannot influence the behavior of PC members at the meeting (state this point quite clearly in your invitation email: *cf.* point *d* in Section 2).

Notice that in Section 1 I suggested to leave one month between the deadline for the reviews and the PC meeting, and three weeks between rebuttals and the PC meeting. This should give enough time to discuss PC papers.

As for what the exact meaning of “above average” or “higher criteria” for PC papers is, I think reasonable to request that they have a majority of A’s (*after discussion*, so that these can be “upgraded” scores) and that any C must be compensated by a couple of very strong A’s.

The important point here for me is that a PC paper must be *discussed* (of course only if it did not receive unanimously negative reviews), as well as be given the possibility to make a rebuttal. So, a PC paper that has a D can be accepted if for example the D turns out to be a low confidence reviewer that missed the point, or the rebuttal showed that the error spotted by the reviewer was not an error. On the contrary a PC paper that has only B’s or that has only one lukewarm defender must not be accepted.

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