How Can I Get My Paper Accepted at a Top SE Conference?

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Before we start...

- Input from several colleagues in the community...
  - "*OMG, this is such a difficult task!*"
  - "*There is no recipe*"
  - ...
  - But there are some general, shared principles

➡ **Our goal is** not to give you a recipe, but **to share** (our and others') **principles and experience** accumulated as

- researchers, writers, and advisors
- associate editors of TSE and TOSEM
- conference program chairs
- program committee members

Feel free to ask, dissent, share!

Big disclaimer

Everything we say from now on is absolutely second to the fact that...

There is no substitute for good research!

Papers are a means to an end, not a goal

- Don't think about publications first
- Do exciting research, and the papers will come
- But do write early!
  (e.g., progress reports)
  - Helps assess your work
  - May eventually lead to a paper

How to Get My Paper Accepted at Top SE Conferences

Why bother?

The selection process

Tips and tricks

How to Get My Paper Accepted at Top SE Conferences

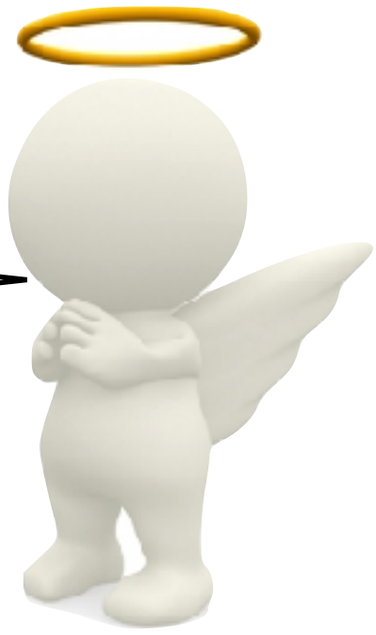
Why bother?

Why bother?
(with ICSE and FSE)

- Low acceptance rates
- One-shot process
- Reviews can be frustrating
- Not a journal

Because it's worth it

Research is as much about ideas
as about communicating them



- Improve the impact of your research
- Boost your professional career
  (recognition, contacts, collaborations)
- Get useful feedback from peers
  (external, independent, usually frank)

Embrace rejection

(At least we do...)

- All authors get rejections
- Rejection is a path to acceptance
- **Do not** take it personally or blame the reviewers
- **Do** use the feedback to improve
  - Broader, more general results
  - More compelling evaluation
  - Better motivation and applications
  - Stronger theory
  - ...

Avoid temptation

Don’t give up and settle for

- less readers
- less citations
- less impact
- little (or even negative) impact on your CV

Publishing at “easy” venues will not make the weaknesses in your work go away...

Papers require a big effort; make it count!

Specific example

Joanne M Atlee and Paola Inverardi <icse2009-papers-chairs@borbala.com> November 21, 2008 5:07 PM
Hide Details
All Mail

Cc: icse2009-papers-chairs@borbala.com , icse2009-papers-webadmin@borbala.com
Reply-To: icse2009-papers-chairs@borbala.com
ICSE 2009 Paper Notification [363]

Dear

Thank you for your submission to ICSE 2009. The program committee met on November 14-15 to consider the submissions to the Research Paper track. We regret to inform you that we could not accept your paper,

blah blah

for inclusion in the conference program. The competition was strong: only 50 of the 405 submissions were accepted, giving an acceptance rate of 12.3%. The overall quality of the submissions this year was very high, and the Program Committee had a difficult time selecting from among the many high caliber papers.

Specific example

Specific example

Joanne M Atlee and Paola Inverardi <icse2009-papers-chairs@borbala.com> November 21, 2008 5:07 PM

Gregg Rothermel <grother@cse.unl.edu> May 25, 2009 4:50 PM
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All Mail 1

Cc: ldillon@cse.unl.edu
ISSTA and some good news

Dear

We're happy to inform you that your paper submitted to ISSTA:

blah blah

has been selected to receive
an ACM Distinguished Paper Award. We'll be making the award
at ISSTA and we'll have certificates for each of you at that time.

Registration and hotel booking is now available online,
we'll look forward to seeing you there.

Laurie Dillon and Gregg Rothermel

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The selection process

The reviewer's psyche

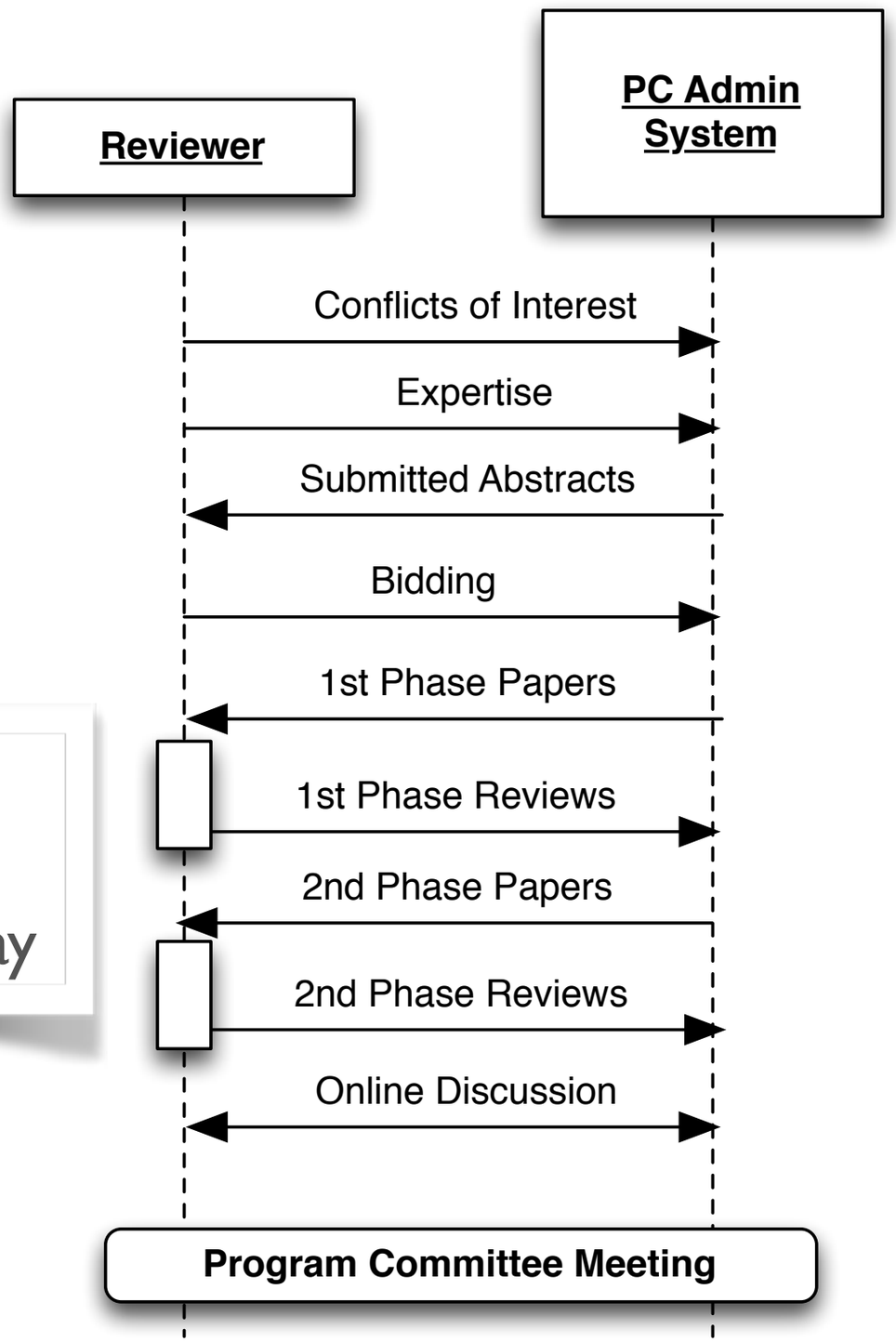
ehm... could you please look for reasons to accept?

Highly trained *papervore*, trained in science, expert in critical thinking.
Main diet:

- Weak motivations
- Lack of applicability
- Limited contributions
- Unsubstantiated claims
- Obvious solutions
- Weak evaluation
- Inadequate treatment of related work
- Sloppy presentations

With possible variations

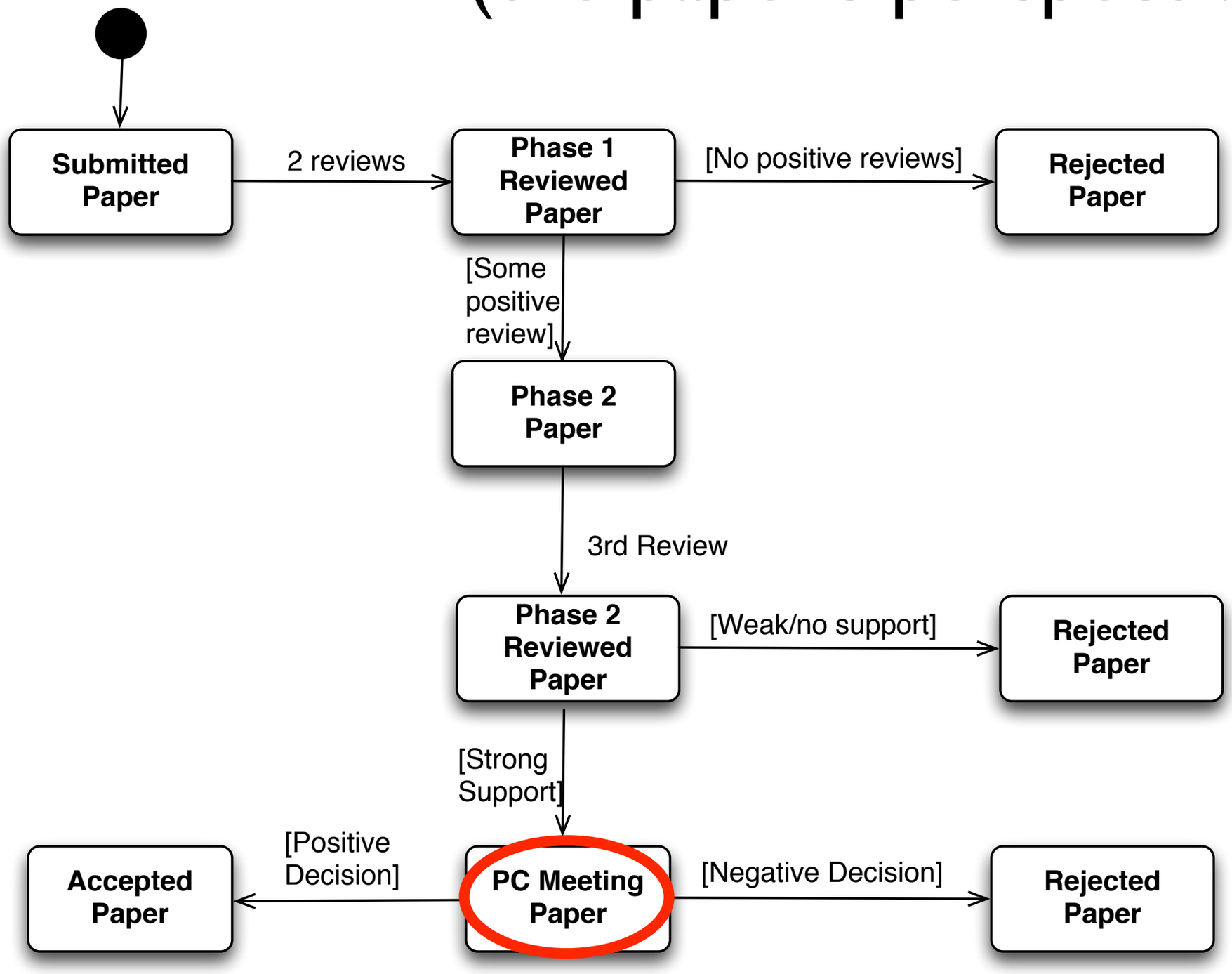
Reviewing process



Workload: approximately one paper per working day

With possible variations

Submission lifecycle
(the paper's perspective)



- A – Strong accept (champion)
- B – Weak accept (accept, but could reject)
- C – Weak reject (reject, but could accept)
- D – Strong reject (over my dead body)

- In addition, expertise

PC meeting

- 1.5-2 days
- ~100 papers discussed (can be much more)
- ~40 people present
- >> 100k air travel miles
- ~50% papers accepted

The selection process is far from perfect

- Limited space
- Limited reviewers' time/attention
- Limited/varied/wrong reviewers' expertise
- High selectivity
  (i.e., reviewers' proneness to rejection)
- Human process...

➡ Address imperfections to improve your paper's chances

Limited space

- Focus: explain less, but don't be superficial (extra materials can go in a Tech Report)
- Rule of thumb: one paper, one main result
- But avoid LPUs!

Limited reviewers' time/attention

- Write for your reviewers too
- Make paper self contained and accessible
- State your contributions *clearly and upfront* (no Agatha Christie's style!)
- Put extra effort in abstract, introduction, and conclusions (and captions!)

Also addresses limited/varied/ wrong reviewers' expertise

- Write for your reviewers too
- Make paper self contained and accessible
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- Put extra effort in abstract, introduction, and conclusions (and captions!)

Reviewers' proneness to rejection

- Feed the vulture
- Convey why the problem is important, hard, and unsolved
- Suitably validate your approach
- Discuss and compare with the state of the art
- Avoid sloppiness in the writing

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Tips and tricks

not mandatory

A typical paper structure

- Title, authors
- Abstract
- Introduction
- Paper body
- Related work
- Conclusion
- Acknowledgement
- References

- (Background)
- Approach
- Validation
- (Discussion)

Abstract

- Different styles
- First impression
  (for both readers and reviewers)
- Used for bidding

➡ Put effort into it!

Introduction
(key points)

- What is the problem?
- Why is it interesting/important?
- Why is it hard?
- What's wrong with existing solutions?
- Why is your approach “better”?
- What are the key components of your approach?
- How do your results support your claims?

Introduction
(key points)

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All of this in about one page!

Introduction
(writing)

- Tell a story
  - Doesn't have to be the real story
  - No "what I did last summer" story
  - Just keep it flowing
- One concept per paragraph
- Motivating example?
- Summarize your contributions
  (for the reviewers)

Related work

- Location, location, location
- Be explicit on the **relation** with your work, don't just enumerate
  - Competing
  - Complementary
  - Overlapping
- Don't add PC papers just because (but do check related work from the PC!)

Related work
(self reference)

- Self plagiarism
  - When in doubt, self cite and discuss
  - Create a technical report if needed
  - Watch out for double submissions!
- Self referentiality
  - Are you too ahead?
  - Is it an irrelevant or accidental problem?

Approach

- Be precise on
  - what you are doing
  - how you are doing it
- Do not devote space in proportion to effort invested
- Discuss limitations honestly and upfront
- Use example(s) throughout to illustrate the **complex** parts
  (have a single, running example if possible)
- Use section titles, figures, and captions wisely

Validation (strategies)

- Different strategies for different papers
  - First of a kind or well trodden area
  - Nature of the contribution
- Options
  - Analytical vs empirical
  - Comparative (against what?) vs absolute
  - Qualitative vs quantitative
  - Human studies vs proxies

Validation
(key points)

- Have traceability from claims to validation
- State your research questions
- Describe the experimental protocol
- Be honest in interpreting your results
- List threats to validity (no boilerplate)
- Release code and artifacts

Conclusion

- Do not repeat the introduction or abstract
  - Restate
  - Can be more concrete
- Discuss future work
  (not necessarily yours!)

Overarching advice

- Be self critical
- Write for your audience
- Don’t be sloppy
- Learn the conference/community style

Be self critical

- Let the paper settle
- Role play
  - Understanding *your own* paper is easy
  - Pretend you hate it
- Be ruthless in editing/restructuring
  - Can be painful
  - Use a scrap file

Write for your audience
(in particular, reviewers)

- Help the reader not lose the big picture
  - Introduce and conclude each sections
    - Avoid digressions and unnecessary details
- Help the non-expert reviewer
  - Gradual complexity increase
  - Complexity encapsulation and recap

Don’t be sloppy

- Spell check and proof read (there’s no excuses!)
- Make citations complete and consistent
- Use reasonable font size and resolution for figures
- Defined all terms exactly once, including acronyms
- Be a bit obsessive
  - Make it look good
  - Remove widows, orphans, and other formatting issues
- Work on your style
  - Keep sentences short
  - Use active form but don’t overuse “we”
  - Paying attention to verb tenses
  - Use help if needed

Learn the conference/ community style

- Read (recent) papers from the conference
- Attend the conference
- Talk to both junior and senior authors
- Solicit feedback on your work

Wrapping up

- There is no formula, but...
  (and there are plenty of further readings)
- Don't follow any advice blindly
  (especially ours!)
- Find what works for you and feel free to innovate
- Most importantly...

Wrapping up

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  (and there are plenty of further readings)
- Don't follow any advice blindly
  (especially ours!)
- Find what works for you and feel free to innovate
- Most importantly...

Focus on the research and enjoy it!

With much appreciated input/contributions from

- Abhik Roychoudhury
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