

Publishing Your Research

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Publishing Your Research

- Part 1 -- The Publishing Process
- Part 2 -- The Writing Process

material in these slides adapted from previous Grad cohort presentations, and Grace Hopper presentation by Jaime Treevan



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Goal of Publishing

Benefits

- Advance the state of the art

- Public evidence of your abilities

Quality v. quantity

- Quality! Quantity varies by area

- Citations matter as career progresses

How to generate citations

- High quality work

- Highly visible outlets



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Avenues for Publication

Primary outlets

Conference Papers

Journal Papers

Additional

Workshop Abstracts

Doctoral consortium Abstracts/Posters

Conference/Workshop Posters

Other outlets

Software, patents, books, data repositories

Social media: blogs, Twitter, YouTube



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Focus: Conferences

Conference status is different in CS

Primary outlet for CS (selective)

Place to meet for other disciplines (not selective)

Identifying top-tier conferences

Process

Acceptance rate/citations

Sponsoring organizations



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Conference Process

Uniform submission date

May have separate abstract deadline

Program committee

May be hierarchical, may have non-committee reviewers

Decisions

May be two-pass

Details vary by area and year

Read the CFP carefully!!!



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SIGGRAPH2013 Example Timeline

Pre-deadline: fill out forms Jan 17
Deadline: MD5 for all content Jan 18
Upload deadline: Jan 19
Committee assignments: ~ Jan 23
Tertiary assignments: ~Jan 30
Reviews available: Mar 11
Rebuttals due: Mar 14
Committee meeting: Mar 20-23
Preliminary decisions: Mar 27
Revisions due: Apr 12
Final Decisions: Apr 19
Publication date: July 7
Presentations: July 21-25



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Conference Ethics

No dual submissions

When in doubt if submissions will be perceived as “dual” : ASK!!!

Commitment to present

This is a serious financial commitment



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Journal Process

No fixed deadlines

Have more space and time

No travel or registration expenses

Can be hard to finish without a deadline

Review cycle can be slower



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Journal Metrics

Popular: ISI Journal Impact Factor

Used across all disciplines, computed by a company

The journal impact factor for year N is the total number of citations in year N to articles published in years N-1 and N-2 divided by the number of articles in N-1 and N-2.



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H-factors

H factor for individuals:

“A scientist has index h if h of his/her N papers have at least h citations each, and the other $(N-h)$ papers have no more than h citations each.” J.E. Hirsch

H5-index for publications:

“h5-index is the h-index for articles published in the last 5 complete years. It is the largest number h such that h articles published in 2008-2012 have at least h citations each” Google Scholar



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Journal Process

Outcomes

Accept

rare on first submission

Minor revision

may be “probably accept”

Major revision

may have one iteration before reject

Reject

may differentiate between “resubmit as new”
and “hopeless”



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Review Process

Single-blind, double-blind, etc.

Reviewer selection

- Drawn from citations, contacts, lit search

- Uses keywords or categories (beware of choosing too broadly)

- Experts in the field

- No conflict of interests

Meta-review



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What Reviewers Look For

Clear contribution

Solid evidence



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Ethics in Reviewing

Integrity, objectivity, accountability

Cannot reject a paper because

- You are writing a paper on the same subject
- You do not like the author

Confidentiality

Single blind, double blind reviews

The material in the paper is not publically available, so you cannot use ideas from it

Conflicts of interest with people who

Work in the same place (never)

Was your advisor (never)

Have written papers together (recently)

Have a financial interest

Double blind review makes things harder, but when in doubt check with program chair



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Considerations in Reviewing

Reasons, not binary decision, matter

The clarity and validity of the reasons you give for accept or reject matter

You are making an impression

The person who assigned you the review will form an opinion of your ability and maturity from your review

Get credit for your work

if assigned as a sub-reviewer, ask that you be acknowledged by the event or journal



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Structure of a Paper

Title and abstract

Authors

Introduction

(Previous Work, System Overview, Proofs, Materials and Methods, Experimental Procedure)

Conclusion

READ READ READ the papers in your area and study the common structure



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Title and Abstract

First impression of your paper

Used to decide to read or review it

Include terms for searching and scanning

Should be a clear, complete summary

Include motivation, findings

Could substitute for reading the paper

Avoid acronyms, citations, formatting



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Authors

Be explicit and generous

Author ordering

By contribution or convention

Importance of position

Author responsibilities

Contributed to the work

Verified the work

Willing and able to present



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Successful Co-Authorship

Externalize thinking

Get your ideas onto paper

Share outlines and drafts

Be respectful of time

Create a schedule

Share it

Keep to it

Speak up



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Introduction

- Make the problem and its importance clear
- Make your contributions clear
- Good to have a visual illustration if possible
- Do not include cute but unnecessary detail
- End with a description of paper structure



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Related Work

Opportunity to highlight contribution

- Describe existing research

- Relate your research to it

Build from versus take down

- Reviewers drawn from related authors

- Avoid being defensive

Writing the Related Work section

- Be concise, focus on key papers

- Remember, people did this work!

- DON'T USE “ in [2] a model is proposed ...”

- INSTEAD “Smith et al. [2] proposed a model...”



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Methodology

Goal: Allow an informed expert to reproduce your research

Describe the exact approach taken

Acknowledge limitations

- Explain why they exist

- Frame them as positive when possible



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Results

Clearly explain what you observed

Pull content out of text when possible

Avoid paragraphs of numbers

Tables and figures should stand alone

Describe figures, tables, quotations

Do not assume reader is looking at them while reading the text

Help the reader interpret the results



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Conclusion

Clearly summarize the contributions

Be strong and positive

When submitted acknowledgments usually omitted for anonymity; final version should be sure to acknowledge all funding support and assistance from individuals who aren't authors.



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Submitting Your Paper

Create a finished paper

- Ensure proper layout

- Copyedit

Anonymize appropriately

Submit on time

- Usually can submit early and modify

Read the CFP carefully

- Ask the PC Chair if you have questions



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Author Responsibilities

Do NOT plagiarize

- Obtain permission for use of material

- Cite and acknowledge work

- Be explicit about reuse of previous work

No dual submissions

Support the reviewing process

- Submit work you are proud of

- Respond to the reviews you receive

- Provide thoughtful reviews



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Dealing with Reviews

Separate out the emotional response

Write a rebuttal or make edits later

Understand the reviews

Identify important issues

Get to the root cause of complaints

Issues you already address were unclear

Respond to the reviews

Reviewers will see the paper again



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Dealing with Rejection

Great papers sometimes get rejected

There is variation and error in process

New or bridge topics particularly at risk

Keep trying

Good target: Three submissions

Consider a venue change

Match content to the best audience

ALWAYS address reviewer comments



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Prepare the camera-ready version

Goal is a strong paper, not just an accepted paper

Address reviewer comments

Share the paper with others

Link to it, blog about it, Tweet about it

Present the work

Leave the details in the paper



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Resources

Paper writing advice

An Evaluation of the Ninth SOSP Submissions or How (and How Not) to Write a Good Systems Paper (Levin & Redell)

- http://john.regehr.org/reading_list/levin_sosp.html

Writing Technical Articles (Columbia CS Department)

- <http://www.cs.columbia.edu/~hgs/etc/writing-style.html>

The Elements of Style (Strunk & White)

ACM Policy

Plagiarism

- http://www.acm.org/publications/policies/plagiarism_policy
- Note in particular the definition of “self-plagiarism”

Making your paper public

- ACM Author-izer service (with interesting FAQ)
- <http://www.acm.org/publications/acm-author-izer-service>



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