How to write a research paper?

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MoSIG1
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Objective of this lecture

Present simple and obvious (but efficient) rules for writing a scientific paper and preparing an oral presentation.

Content

1. Writing rules for a paper targeting a conference or a journal?
2. How to avoid a bad talk?
3. Going behind the peer review process.
The writing is different for papers (reading) and for slides (listening). However, in any case, it is important to keep a good level of language (spelling, avoid grammatical errors, use precise terms).

Some examples
- Use the right syntax: distinguish *will do* vs. *have done* and prefer active form than passive one.
- Ambiguous use of pronoun “This” to summarize sense of previous sentence.
- Avoid single numbered subsections
- Referring to Chapters, Figures, Tables with capitals
- Numbers spelled out vs. numerical

Let read for instance:
*The elements of style.* from Strunk and White
Strengthen the content:

- Do not hide drawbacks
- Mention actual performances
- Refer to related works
- Any counter-intuitive result is interesting!

https://people.eecs.berkeley.edu/patterson/talks/writingtips.html
Overview of the main syntactic elements

- List of authors: use a simple rule (alphabetic order as the standard)\(^1\)
- Title (short, synthetic, fun, controversial)
- Abstract (anyone should be able to read it). Not too detailed, often limited space.
- Introduction/context/motivation. Make explicit and clear your contribution(s).
- Main result(s), don’t hesitate to present the paper as a \textit{story}. Most papers are incremental or suggest an improvement of an existing result.
- Conclusion (should differ from the introduction), it should contain a clear message.

\(^1\) it may depend on the community
Choose the (right) target

Each workshop/conference has its own style and rules:

You should first target the spot to disseminate your work. Then, the writing can start.

$h$-index is as important as the number of papers!

Read several issued papers on the same venue to get an idea of the type of results and style.
The five universal pillars

Be aware of the evaluation criteria

- Relevance
- Originality
- Related works
- Technical soundness
- Writing style and Organization
Relevance

There are a lot of conferences. Target the *best* possible venue (the most famous one according to the quality of the results).

Adequacy to the Call for Papers: Don’t focus on a wrong spot. Take a look at the Programme Committee and previous editions of the conference.
Some points should be new
However, don’t use too much the word new results/algorithms/ or novel approach/methodology...

Don’t oversale your results!
Related works

Presenting different approaches solving your problem or related studies allows to emphasize your contributions and to stress how timely is your problem.

Don’t put too many self-references.

Carefully check the bibliography (all details should be written in order to be able to find the referenced paper).

There are two ways to consider related works: just after the introduction or just before concluding.
Technical soundness

Concern both theoretical and practical sides.

Decompose the results in Lemma, Claims, Propositions and Corollaries. Use an appendix (if it is allowed), or write a companion paper (Arxiv).

Describe precisely the experimental protocols and analyze the results. The figures should be commented and self-contained.

Make the results and experiences visible (see the talk of Arnaud Legrand)
Writing style and Organization

Take the time to choose the right notations: simplicity and clarity (don’t use the same index in different contexts and be consistent within the whole paper).

The structure should be solid and clearly understandable.
Define terms and acronisms before using them.
Mention drawbacks, actual performance.
Reference related approaches and other papers.
Use one topic/idea per phrase/sentence per paragraph.
Use figures instead of tedious descriptions.
Use Tables to contain facts that make prose dreary.
Grammar check (technical for style), short sentences with subject-verb-complement.
Get feedback from colleagues and friends (Proofs, runs, core of the contributions), improve the paper.
Oral presentation

- Allocate 1 or 2 minutes per slide, leave time for questions
- Story telling: start by a pitch.
- Don’t over animate
- Do dry runs with friends/critics for feedback
- Read aloud (remember *le Gueuloir de Flaubert*)
- If you have time, record a practice talk (video)
- Don’t memorize speech, but have notes ready
Log in to EasyChair

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If you have no EasyChair account, create an account
Forgot your password? click here
Problems to log in? click here
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<thead>
<tr>
<th>#</th>
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You can log in to FUN 2007 using only one role:

- PC member
## FUN 2007 List of Submissions

This table contains hidden fields: [click here to select which fields should be visible.](#)

The time in the table is the last modification time.

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<td>Veli Mäkinen and Gonzalo Navarro</td>
<td>Implicit Compression Boosting with Applications to Self-Indexing</td>
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<td>Daniel Andersson</td>
<td>HIKOMONO is NP-complete</td>
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<td>Guohui Yao and Daming Zhu</td>
<td>Approximating Degree-Bounded Minimum Spanning Trees of Directed Acyclic Graphs</td>
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<td>Barnaby Martin</td>
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<td>Anna Bernasconi, Chiara Bodei and Linda Pagli</td>
<td>Knitting for fun: a recursive sweater</td>
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<td>8</td>
<td>Markus Holzer and Oliver Ruepp</td>
<td>The Troubles of Interior Design---A Complexity Analysis of the Game heyawake</td>
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My Settings for and Information About FUN 2007

Click on the appropriate link if you want to perform an action described below.

- FUN 2007 information
- Change role
- License for this conference
- My watchlist
- My conflicts
- My topics
# Current Status of Reviewing

To see reviews on a paper click on the paper title.
The scores are followed by the confidence (in parentheses).

For more information about this page, click on Help.

**Shortcuts to papers:** 7, 14, 16, 19, 31, 40
- Untick this box to hide shortcuts to papers
- Show paper authors.
- When computing the average score, weight reviews by reviewers’ confidence.

**Note.** The following table excludes (a) papers for which a conflict of interest was declared for you and (b) papers assigned to you but not yet reviewed by you.

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Reviews and Comments on Submission 40

Submission

Submission: Fabrizio Luccio and Linda Pagli. Web Marshals Fighting Curly Link Farms
Conflict of Interest: 
File: 
Current decision: ACCEPT (accept)

Summary of Received Reviews and Comments
Reviews superseded by other reviews are shown in the grey color in the table. All times are GMT.

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Concluding remarks

Don’t forget deontology, apply ethical rules!
A talk on fraud will be presented by Cyril Labbé on friday.
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You are now ready for submitting a paper!
Good luck.