How to Write a Paper?

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Typical Structure of a Paper

- 1. Abstract
- 2. Introduction
- 3. Literature Review and/or Theoretical Framework
- 4. Econometric/Empirical Framework
- 5. Data and Descriptive Statistics
- 6. Empirical Results
- 7. Summary and Conclusions
- 8. References
- 9. Appendix



Abstract

- ▶ Communicate the one major and novel contribution.
- ▶ Not more than 150 words.
- Write very concrete. Don't waste space with meaningless and vague statements.
- State the major research question, model (if not standard), data (if innovative) and major results.
- ► Give at least three representative keywords (possibly not contained in the title) after the abstract.

Getting the Introduction Started

- ▶ Before you start writing: Identify and distill *the* central contribution of your paper.
- ► First paragraph: Introduce to the <u>overall</u> topic. What are we talking about?
- ➤ Second paragraph: State in compact form what your paper is about (without going into more details). State *the* central and novel contribution. Put the punchline right up front!

The next introductory paragraphs...

- ➤ Give more background information on your specific contribution. If necessary, give the most important underlying references.
- ► Motivate your research objective and state your research questions.
- ▶ Explain how your paper contributes to the existing literature.
- Explain (in compact form!) your approach and state the used data (if interesting).
- ▶ State the major findings (not all specific details).
- ► Give the structure of the remainder of the paper.



Literature Review

- Only needed as an extra section if you provide it in more detailed way. Otherwise imbedded in introduction or next section.
- ▶ Don't overload the reader and don't write a survey!
- ► Carefully select the relevant(!) literature and not just all what you could find.
- Categorize and systematize the literature in a meaningful and transparent way.
- Quote properly in the form, e.g., "Engle and Granger (1987)"

Notation

- ► Use a proper, transparent and consistent (!) notation. Make it simple but still unequivocal.
- ▶ Try to use common notation (e.g., r_t for log returns and not, e.g., h_t .)
- Introduce your notation carefully. If it is complicate, remind the reader to some definitions from time to time (... risk aversion θ is ...)
- ► Check your formulas carefully. Avoid obvious errors.
- ► Show main derivations and relationships. Lengthy derivations should go into the appendix.

► Don't overload the reader with empirical results.

- Most important tables/figures should be put directly in the text. Less important ones might be put in the appendix. Irrelevant ones should be skipped.
- ▶ Tables and figures must be readable (font size, colors!)
- ► Tables and figures should be designed in a way such that they are maximally informative.
- ► Tables and figures should be self-explaining (proper legends, explanations)!

Empirical Results

- ▶ Don't just replicate what the reader anyway sees from the tables and figures (e.g., ... the *t*-statistic is 2.35 ...)
- ▶ Directly interpret results and draw conclusions.
- ➤ The result sections are often boring and written in a mechanical way. Avoid that and make it interesting!
- Work out and systematize the major findings. You might even number them in the text.
- Start with the main result!
- ▶ Don't waste space with preliminary results.



Conclusions

- Short and sweet!
- Very briefly and compactly explain again what you have done in the paper.
- ▶ Do not repeat all of your results. Give the main message!
- Give some general conclusions but don't start speculating.
- ▶ Do <u>not</u> put all your plans for future research at the end!

References

- ▶ Quote papers properly and completely (!)
- ► All papers quoted in the text must appear in the references and vice versa.
- ▶ Quote in the "Econometrica style".
- ▶ If you quote working papers, check for updated versions or forthcomings.

- ▶ Mathematical appendix for lengthy derivations and proofs.
- ► Extra category for tables and figures.
- ▶ Use also a consistent and transparent structure.
- ▶ Note: The appendix should provide useful extra information!
- ➤ The appendix is not a "waste dump" for everything you have produced.
- Assess whether you (as a reader!) would find your appendix useful.

General Remarks on Organization

- ▶ Readers are impatient and don't have much time. Readers skim!
- Most readers just want to know the main story and your basic result!
- Organize your paper such the readers can easily skim and can get to the point.
- ▶ Don't organize your paper in a "novel style". Get to the central result as fast as possible not at the very end!

3. Writing — 14 | 17

General Remarks

- Keep it short! Every word counts!
- ► Every sentence should say something.
- ▶ Don't replicate phrases. Saying it once (but understandable) is enough!
- ▶ Discipline yourself. "Do I really have to say this? Can I formulate more compactly (but still understandable)?"
- ► Be precise regarding your wording. Avoid meaningless sentences.
- ► Avoid obvious sloppiness! Use spell-checkers.



3. Writing — 15 | 17

Specific Remarks on Writing

- ▶ Normal sentence structure: subject, verb object.
- ▶ Use active tense. Not: "... it is assumed that ..."or "... it should be noted that ..."
- Use present tense.
- ▶ Write concrete and not abstract. Don't use fancy words.
- ▶ Don't use double adjectives (... very important results ...)
- Avoid technical jargon



3. Writing — 16 | 17

- ▶ It is usually the case that most good writers find that everything before the "that" should be deleted. Right?
- ▶ Don't use to much "this". E.g., "this shows ...", "this means ..."
- ▶ Don't abbreviate authors' names.
- ▶ Don't overuse italics.
- ► Use footnotes only for things a typical reader genuinely can skip. If it is important put it in the text, otherwise skip it.
- ▶ Don't use bullet point lists.



4. Conclusions — 17 | 17

Conclusions

- ► Good scientific writing is very difficult!
- ▶ Put the punchline right up front.
- ▶ Be as clear as possible.
- Get rid of any nebula and noise.
- ▶ Don't try to impress people with (typically dispensable) technicalities or details.
- ► Make it maximally easy (and not complicate!) for your readers to read your paper and to understand the main contribution.
- ➤ Assess your paper from the viewpoint of a referee. Referees don't have much time and want to quickly understand what your main contribution is.

