

## *Further topics in statistics and probabilities*

### **Your paper**

#### **Possible topics**

A summary and discussion of one of the following articles:

- Dalkey (1969), “The Delphi method: an experimental study in group opinion”
- DeGroot (1974), “Reaching a consensus”
- Sebenius and Geanakoplos (1983), “Don’t bet on it: contingent agreements with asymmetric information”
- Geanakoplos and Polemarchakis (2023), “Rational Dialogues”

Alternatively, you can suggest your own topic from the range of questions and theories that we discuss in this class. In that case, you have to discuss it with me first to see whether the suggested study is appropriate for this course.

#### **Audience, Aims, and Scope**

Your expected audience should be your peers or someone from a related field who has some basic knowledge of probability theory. Your paper should be self-contained relative to this audience. That is, you should introduce, or recall from your first class in probabilities, all concepts and mathematical notions that you need to present the content of the respective contribution.

Your presentation and paper should do more than give a simple summary of the respective article. Specifically, you should illustrate the theory with *your own examples*. You can replicate examples given by the authors in the original article, but then, you have to indicate this, and you should include at least one example that you have constructed yourself. Ideally, your own examples will complement the examples given in the original article. Your examples could, for instance, highlight an aspect of the general result that is not seen so easily in the examples given in the original article. Or it could be an example that shows what can happen when the premise of the result illustrated does not hold. You can use examples that you have already created for your homework assignments. If you use examples that you have found elsewhere (other articles, books, internet resources), you have to indicate the respective reference.

In addition to that, you can include comments on the original contribution. These can be comments that you have read in other articles, books, lecture notes, dictionaries, online

resources, etc. (in that case, the respective reference of course has to be indicated), comments that arise from your own observations, or—and this is not rare in mathematical research—observations that you have received from some of your peers. In that case, this needs attribution too. You can, for example, put in a footnote in the style of: “I want to thank Jean Malaurie for having shared this observation with me.”

## Important dates

**Proposal:** The topic of your paper has to be decided by December 8. You have to hand in a file containing the name of the author or authors, the working title of the paper and the beginning of a reference list containing the one or two most relevant references.

**Final paper:** Your final paper is due **January 15, 2024 (18h, Paris time)**.

Both items have to be sent by mail **to my address at Paris II:**

[christina.pawlowitsch@u-paris2.fr](mailto:christina.pawlowitsch@u-paris2.fr)

In your message, please mention your name and the program in which you are enrolled (Collège or CMI). As a file name use something like:

“2023-Compl-Stat-Collège-Jean-Malaurie.pdf” or

“2023-Compl-Stat-CMI-Juliette-Vasseur.pdf”.

An **oral defense** of your paper will take place in the weeks of January 22 or 29.

## Format

Your paper has to be written in English, following American-English standards for spelling and punctuation.

It should be in *Word* or pdf-format, 5-10 pages, 12pt, single-spaced. Since this is a short document, please do not include a table of contents, and do not start a new page at the end of a section or subsection. Choose a neutral layout (no logos or other graphical elements). If you hand in your document in pdf format, you also have to hand in the original file source (for example, the tex file, if you have typed it in LaTeX).

The title page should indicate:

- The title of your paper
- Your name
- The title of the class and the instructor as well as the university and the program
- The date

## Example

### A review of Aumann's model of interactive knowledge

Jean Malaurie

Term paper

Further Topics in Statistics  
Instructor: Christina Pawlowitsch

Collège d'Économie  
Université Panthéon-Assas, Paris II

December 10, 2019

Pages should be numbered.

Your paper should have:

- an abstract and
- a reference list.

## Abstract

The abstract of a research article is a short summary of the work. Its function is to permit the reader to quickly locate the work within the body of the existing literature. The abstract of your essay should have not more than 200 words.

Here is some advice—from two editors—about writing an effective abstract:

<https://www.insidehighered.com/advice/2017/02/23/importance-writing-effective-abstract-when-you-submit-journal-article-essay>

## References

References should be given in the author-date style as recommended by *The Chicago Manual of Style*: [https://www.chicagomanualofstyle.org/tools\\_citationguide/citation-guide-2.html](https://www.chicagomanualofstyle.org/tools_citationguide/citation-guide-2.html)

In the text, the reference is indicated simply by the name of the author or authors with the year of publication in parenthesis.

## Example

Still, even if a fully revealing equilibrium exists, it is possible that the game has equilibria in which none of the first player's types uses the costly signal (Spence 1973).

If the phrase in the text mentions already the author's name, it is sufficient to indicate the year of publication in parenthesis.

#### Example

As already demonstrated by Spence (1973), it is possible that there are equilibria in which none of the first player's types uses the costly signal.

For each reference in the text, there has to be an entry in the reference list at the end of the document, specifying the full name of the authors, the title of the work and the publisher.

#### Example

Spence, Michael. 1973. "Job Market Signaling." *The Quarterly Journal of Economics* 87 (3): 355–374.

### Useful resources for writing an essay in English

*The Chicago Manual of Style*, 16th ed. Chicago: University of Chicago Press, 2010.

Online companion: <https://www.chicagomanualofstyle.org/home.html>

Turabian, Kate L. *A Manual for Writers of Research Papers, Theses, and Dissertations*, 8th ed. Revised by Wayne C. Booth, Gregory G. Colomb, Joseph M. Williams, and the University of Chicago Press Editorial Staff, Chicago: University of Chicago Press, 2013.

Online companion: <https://www.chicagomanualofstyle.org/turabian/toc.html>

*Respecting these formal requirements will be part of the evaluation of your work.*