

RESEARCH METHODOLOGY

French research system, bibliographic methods, how to {write/speak/PhD}

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And you? Where do you come from? \LaTeX and you?

The course 10 hours = 3 + 2 + 2 + 3

Arche, personal page Slides, information, useful links

Assessment Presentations about research systems in countries
other than France

SOME PRACTICAL WORK!

Create a document in LaTeX that contains a table and a figure. Give each object a caption, put the table caption above the table and the figure caption below the figure.

Create a BibTeX file with a few citations in it. Add a sentence that contains these citations and then add a bibliography to your document.

<https://tex.stackexchange.com/>

<https://www.tablesgenerator.com/>

<http://detexify.kirelabs.org/classify.html>

<https://www.latextemplates.com/>

French research system

Ph.D. fundings in France

Ph.D.: where and when?

After a Ph.D. (in France)

Scientific communication

FRENCH RESEARCH SYSTEM

EPST Établissements Publics de Recherche et d'Enseignement
Supérieur
Public Superior Establishments of Research and Teaching

- Public research is conducted jointly between universities and research organizations

CNRS Centre National de la Recherche Scientifique
National Center for Scientific Research

→ Fundamental research in all disciplines of science, created in 1939 <http://www.cnrs.fr/en>

In 2020 Budget : 3.4 billion €; 32,000 employees.



FIGURE – 10 institutes in the CNRS.

INRIA Institut National de Recherche en Informatique et
Automatique
French Research Institute for Digital Sciences

→ Computer science and mathematics research for digital
technologies, created in 1967 <https://www.inria.fr/en/>

In 2019 Budget : 230 million €; 4,200 employees.

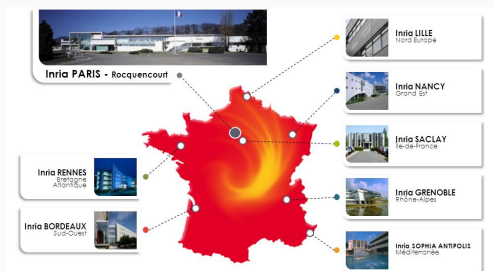


FIGURE – 8 Inria research centers.

INSERM Institut National de la Santé et de la Recherche Médicale
National Institute of Health and Medical Research

→ Focuses on health, medical issues and bio-medicine, created in 1964.

INRA Institut National de Recherche Agronomique
National Institute for Agricultural Research

→ Focuses on research in agriculture, agronomy, nutrition, environment, green bio-technologies, biodiversity, epidemiology. Created in 1946.

Not an EPST **CEA**: Commissariat à l'Énergie Atomique (French Alternative Energies and Atomic Energy Commission), a national research organization dedicated to nuclear and alternative energies.

UPR « Unités Propres », consist of only one type of EPST.

Ex: LSPM – Laboratoire des Sciences des Procédés et des Matériaux
(Laboratory of Process and Materials Sciences), CNRS UPR 3407

UMR « Unités Mixtes », bring together researchers from several
institutes and/or universities

Ex: LORIA, UMR 7503 = Université de Lorraine + CNRS + INRIA

PH.D. FUNDINGS IN FRANCE

- Doctoral contract
- Funding by research institutes
- Industrial funding : CIFRE (Conventions Industrielles de Formation par la Recherche)
- Co-funding by the region/other (institute, laboratory funds)
- Research contracts: with the own resources of a research team (ANR, ERC, other)

Who? No age limit, no obligation to have obtained a Master's degree in the prior year.

Selection Local.

Complementary activity? Teaching, scientific and technique information, expert assessment or technological surveillance for companies or community.

Wage 1,684.93 euros raw/month for research activity only; 2,024.70 euros raw/month if complementary activity.

Most EPST have their own money (from government) to fund Ph.D. projects.

Complementary activity? Generally possible. Teaching, scientific and technique information, expert assessment or technological surveillance for companies or community.

Ex: CNRS Bourse Docteur Ingénieur (**BDI**), requires to have an Engineer diploma. 1,757 euros raw/month.

Ex: INRIA CORDI-S programme. 1,957.54 euros raw/month.

Who? Having obtained a Master's degree in the last three years.

Selection ANRT: Association Nationale de la Recherche Technique
(National Association of Technical Research).

Complementary activity? No.

Wage Depends on the company! Minimal 1,957 raw/month.

Each case is different 😊
Contact your possible future supervisor(s)!

Your future supervisors may work within a research project funded by a national, European or international agency, and may therefore have a specific budget for a Ph.D. project.

Contact your possible future supervisor(s)!

PH.D.: WHERE AND WHEN?

Crawl & stalk & spam:

- Research institutes
- Research centers
- Doctoral schools
- Mailing lists of your favorite research topics :
 - * Linguist List
 - * Liste Langage Naturel (LN)
 - * Groupes de recherche (GdR)

A.S.A.P.

Ph.D. **proposals** generally have to be **submitted** between **beginning of February and beginning of April** by the supervisors.
Most **application campaigns** open **beginning of May**.

AFTER A PH.D. (IN FRANCE)

ATER Attaché Temporaire de Recherche et d'Enseignement
(Temporary Research and Teaching Officer) in a
University – 2 years at most

Post-doctorate Contract researcher, in France or abroad

Maître de conférence Assistant, then associate
professor – university lecturer and researcher, on local
competitive recruitment of universities, requires a **CNU**
qualification

Chargé de Recherche civil servant researcher in one of the EPST –
on national or local competitive recruitment depending on the
EPST)

Lecturer/researcher of the private sector

WHERE DOES THE MONEY COME FROM?

National and European funding plans:

ANR Agence Nationale de la Recherche (National Research Agency):
individual or collaborative national or international calls for proposals

Region Generally devoted to a specific theme and regional collaborations between public and private organizations

Programs of research institutes

European Commission Ex: Horizon 2020 Programme

Criteria common to all types of calls:

- Subject relevance (bibliography, state-of-the art, clear presentation of the objectives).
- Scientific excellence and innovative aspects for technological research.
- Quality of the project structure/implementation and its feasibility.
- Global impact of the project.

Then, depending of the call type:

- Presence of the industrial sector via industrial partners
- International collaborations

SCIENTIFIC COMMUNICATION

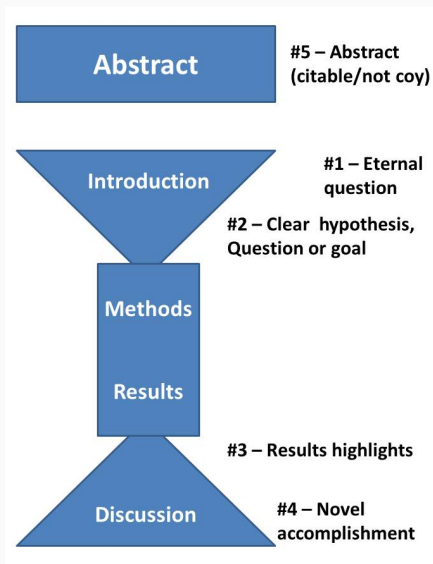


FIGURE – 5 sections : abstract, intro, methods, results, discussion (AIMRD).

1. **General introduction of the subject** (with plan explanation)
2. **Detailed presentation of the subject and objectives**
 - State-of-the-art : existing work (theoretical & technical)
 - Presentation of your objectives and hypotheses: put into the context of the existing works
3. **Your methods**
 - Presentation of your methods (e.g. your new method compared to the existing works)
4. **Your results**
 - Result presentation
 - Result analysis/Discussion
5. **Conclusion**
6. **Bibliography**
7. **Potential Annexes**

TYPOGRAPHY MATTERS.

I want to be able to write texts in English, but also en français. Yet: typography rules are different in those languages! There must be more than 1,000.5 rules in English, 1 000,5 en français. I would give \$3 billion and 3 milliards € to learn them!

English <https://www.loveofgraphics.com/typography/typographic-rules-to-remember/>

French

http://www.schplaf.org/kf/VadeMecum_Memoire.php

Both <https://www.mancko.com/typography-punctuation/en/>

English "bla" → “bla”

French "bla" → « bla »

Attention please: guillemets (French quotation marks) need space!

The most important part is the content use simple styles and avoid dense poster/slides.

Colours the most important keywords could be **coloured**, or in **bold**.

Text the less text the better. No full sentences; graphics/pictures help to visualise.

Details your presentation should lead people to read your paper, you don't have to pack everything in it.

Attract people main idea and main findings should be clear (1 min).

Talk to people a poster is a base. Prepare a speech (2-5 mn) that goes quickly through the poster.

Font the title should be readable from about 3-5 meters, the rest from about 1-2 meter.

Reading path generally easier: left to right, up to bottom, either by columns or by rows.

Structure follow the paper: motivations (what is the problem, why it is interesting) maybe an example, then approach and contributions, experiments, results and a conclusion.

Time/slide 1 slide per minute (at most!)

Outline for short presentations, don't repeat the outline.

Outline (again) it isn't necessary!

Structure the paper contains more than the slides, select the most important content. Adapt to your audience!

Transitions try to have a sentence link between your slides (you don't get lost + the audience follows your story).

The end a "Thank you!" slide.

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What not to do:

<https://www.youtube.com/watch?v=KbSPPFYxx3o>.

TYPOS (AND HOW TO AVOID THEM)

- Use spell-checkers (ex (on-line, English):
<http://www.reverso.net/spell-checker/english-spelling-grammar/>).
- **THEN**: look out for:
 - Homogeneity** caps, punctuation, general style.
 - Logic** outline, transitions.
 - Formulations** <https://www.deep1.com/>
 - Rehearse** rehearse, rehearse.

“The term ‘bullet-point’ comes from people firing guns at annoying presenters.”

DEMO

Any claim must be justified by a citation.

Any extract from a published work (book, report, article, internet,etc), must be quoted.

Harvard system alphabetical ordering in the “Bibliography” section, no numbering. The citation is made with the author’s last name, followed by their first name, and the year of publishing.

Ex: Chomsky, N. and Lightfoot, D.W., 2002. Syntactic structures. Walter de Gruyter.

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Ex: Chomsky, N. and Lightfoot, D.W., 2002. Syntactic structures. Walter de Gruyter.

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Ex: [1] Chomsky N, Lightfoot DW. Syntactic structures. Walter de Gruyter; 2002.

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Ex: [1] Chomsky N, Lightfoot DW. Syntactic structures. Walter de Gruyter; 2002.

Mixed systems references numbered and ordered according to the alphabetical order in the “Bibliography” section; cited with their numbers.

The BibTeX software of \LaTeX provides us with a large choice of bibliography styles, giving both, the citation format in the main text and the reference format of the “Bibliography” section.

```
@article{amblard-etal2015,  
  author = {Amblard, Maxime and Fort, Karën, and  
           Demily, Caroline and Franck, Nicolas  
           and Musiol, Michel},  
  title = {Analyse lexicale outillée de la parole  
          transcrit de patients schizophrènes},  
  year = {2015},  
  journal = {Traitement Automatique des Langues},  
  volume = {55},  
  issue = {3},  
  pages = {91-115}  
}
```

```
@book{asher2003logics,  
  Author = {Asher, Nicholas and Lascarides, Alex},  
  Publisher = {Cambridge University Press},  
  Title = {Logics of conversation},  
  Year = {2003}  
}
```

```
@mastersthesis{boritchev2017,  
  author = {Maria Boritchev},  
  title = {{Approaching dialogue modeling in a  
    dynamic framework}},  
  school = {Universit\'e de Lorraine},  
  year = {2017}  
}
```

<https://sciences.univ-amu.fr/en/research/organization-of-french-research-systems>

<https://slideplayer.com/slide/6891824/>

<https://entese.hypotheses.org/>

<http://www.winlp.org/winlp-2019-workshop/poster-slides-tips/>

How to communicate with professors?

[https://www.affordablecollegesonline.org/
college-resource-center/
communicating-with-professors/](https://www.affordablecollegesonline.org/college-resource-center/communicating-with-professors/)

How to write an academic resume/CV [https:](https://gradschool.cornell.edu/academic-progress/pathways-to-success/prepare-for-your-career/take-action/resumes-and-cvs/)

[//gradschool.cornell.edu/academic-progress/
pathways-to-success/prepare-for-your-career/
take-action/resumes-and-cvs/](https://gradschool.cornell.edu/academic-progress/pathways-to-success/prepare-for-your-career/take-action/resumes-and-cvs/)

Feel-good advice for presentations and posters writing

[http://www.winlp.org/winlp-2019-workshop/
poster-slides-tips/](http://www.winlp.org/winlp-2019-workshop/poster-slides-tips/)