



How to write and publish a scientific paper ?



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7th Doctoral students day, December 13th, 2018, Oran 1 University

Outline

1- Why writing a paper ?

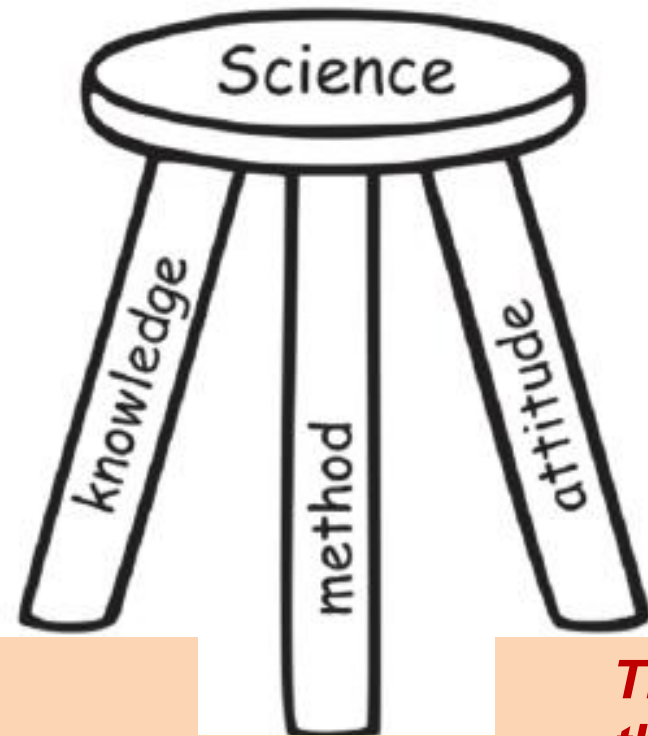
2- Components of a paper: IMRAD

3- Publishing process



It doesn't matter how many resources you have if you don't know how to use them, they will be never enough

*Start writing a
scientific paper,
a big challenge !
You need 2 things:
science
and a language as
basic resources*

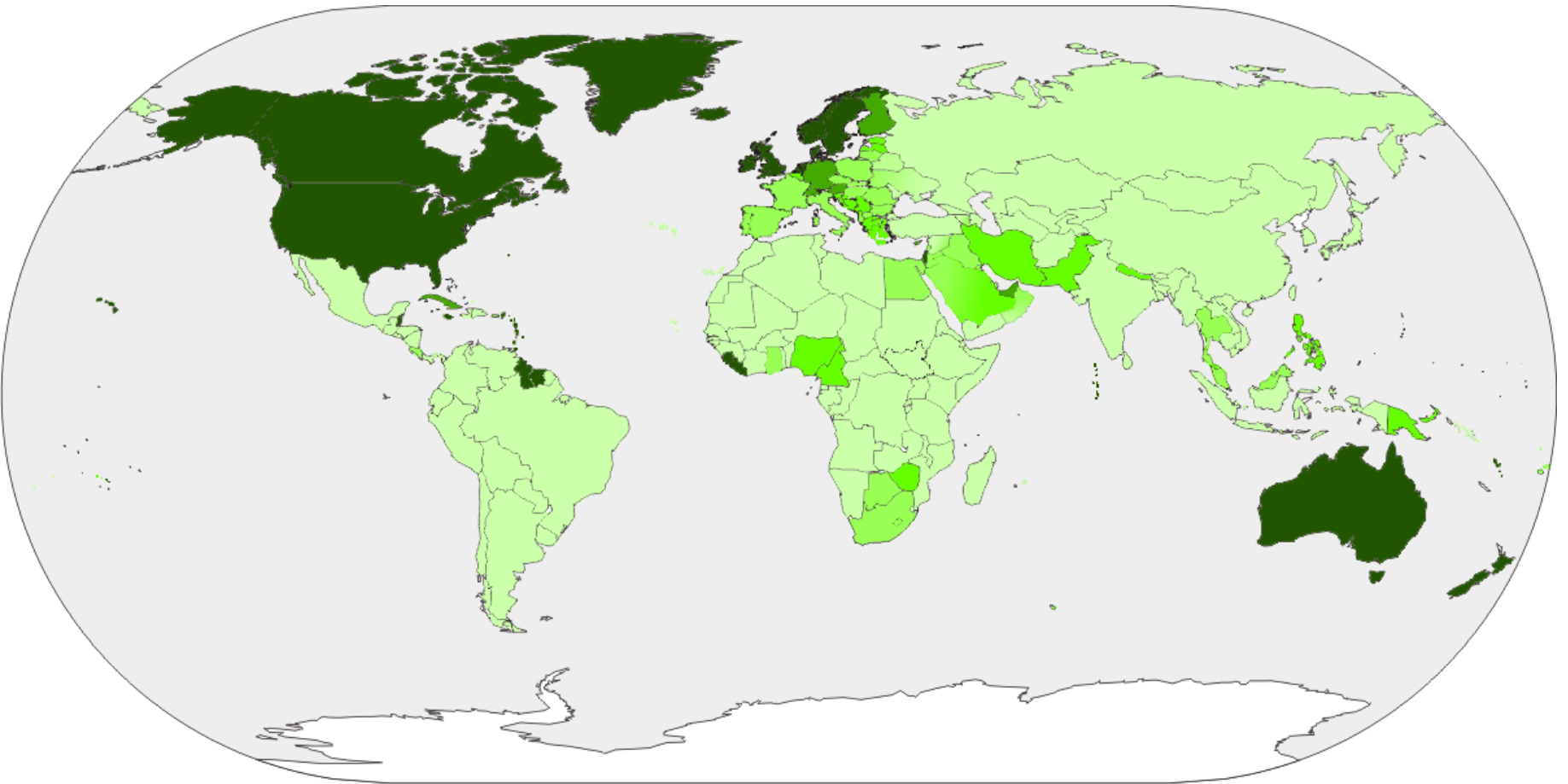


*Facts,
Data,
theories*

*Evaluating the
effectiveness of
Theories by
comparing
predictions to
experiment*

*The belief
that all
scientific
knowledge
is subject
to revision*

English is a global language of science



Percentage of English speakers by country.

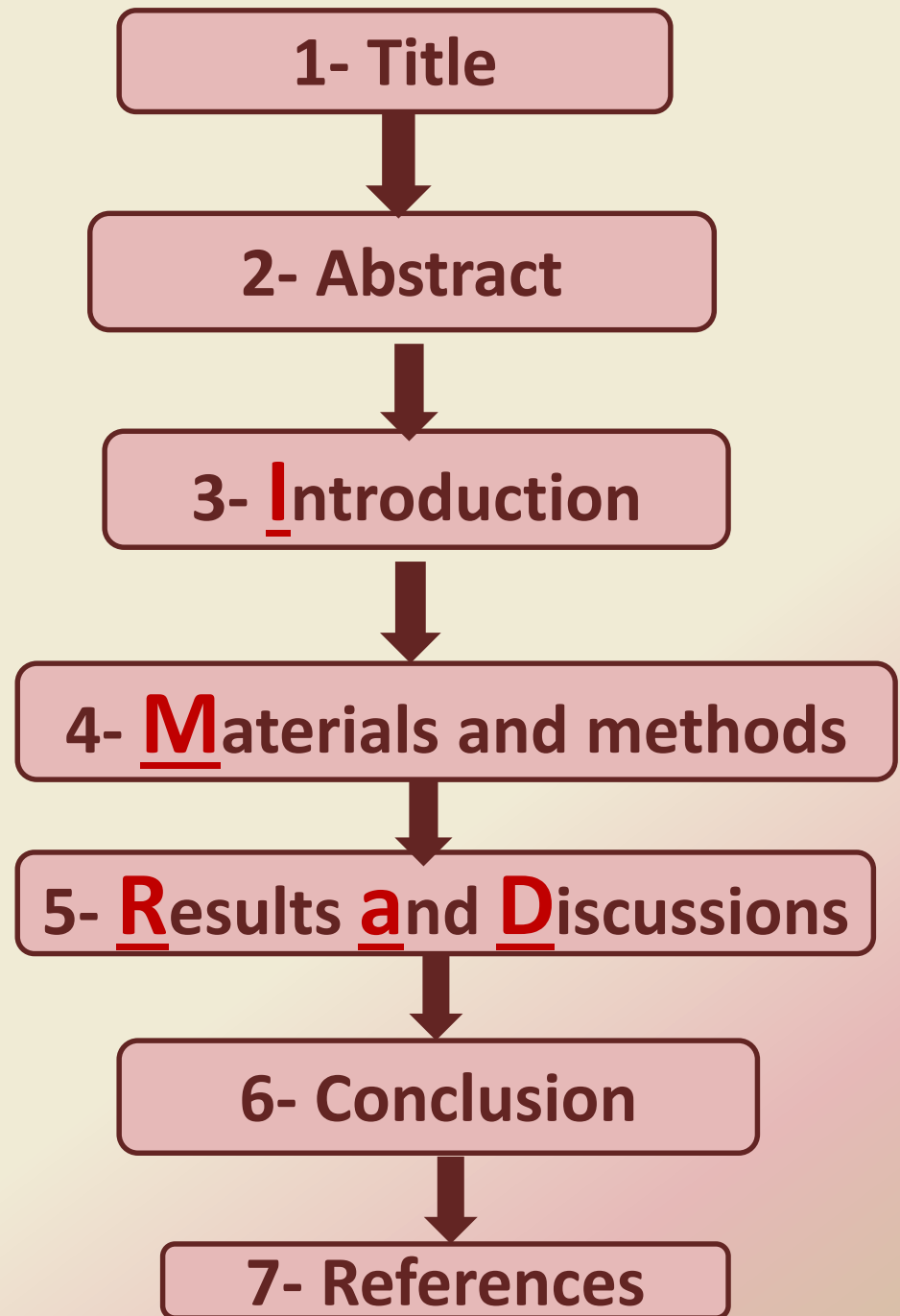
80–100% 60–80% 40–60% 20–40% 0–20%

1- Why writing a paper ?

- **Contribute to the scientific development in your field of interest.**
- **Exchange of knowledge and skills with other scholars.**
- **World : small village, bring scientists together.**
- **Network database : Web of Science.**
- **... And also for your career :**
Defend your Phd. thesis

2- Components of a scientific paper

Writing Process :
IMRaD



2- Components of a paper

1- Title :

Should be short and gives a general idea of the paper contents

2- Abstract :

- Number of words : 150 → 300
- Must provide a complete summary including : problem to be solved, the approach to the problem, the major findings and short conclusion

2- Components of a paper

3- Introduction:

- **Description of the problem**
- **Review of relevant literature on the subject :
“State of art ”**
- **Potential solutions to the problem briefly**
- **Structure or roadmap for the next parts of
the paper**

2- Components of a paper

3- Materials and methods:

Information on how to accomplish the objective (theories, hypotheses, techniques, experiments, ...).

4- Results and discussions :

- Results : Images, figures, tables....
- Explanation and discussion of figures, tables, ... without concluding remarks.

5- Conclusion : should discuss the main results

2- Components of a paper

6- References :

- Bibliography of cited papers carefully referenced in the text of your paper.

7- Sometimes :

- Acknowledgement, Appendices.

Piece of advice for writing a SP

4 C rule :

when preparing to write your paper, try to be :
Correct, Clear, Consistent, and Concise

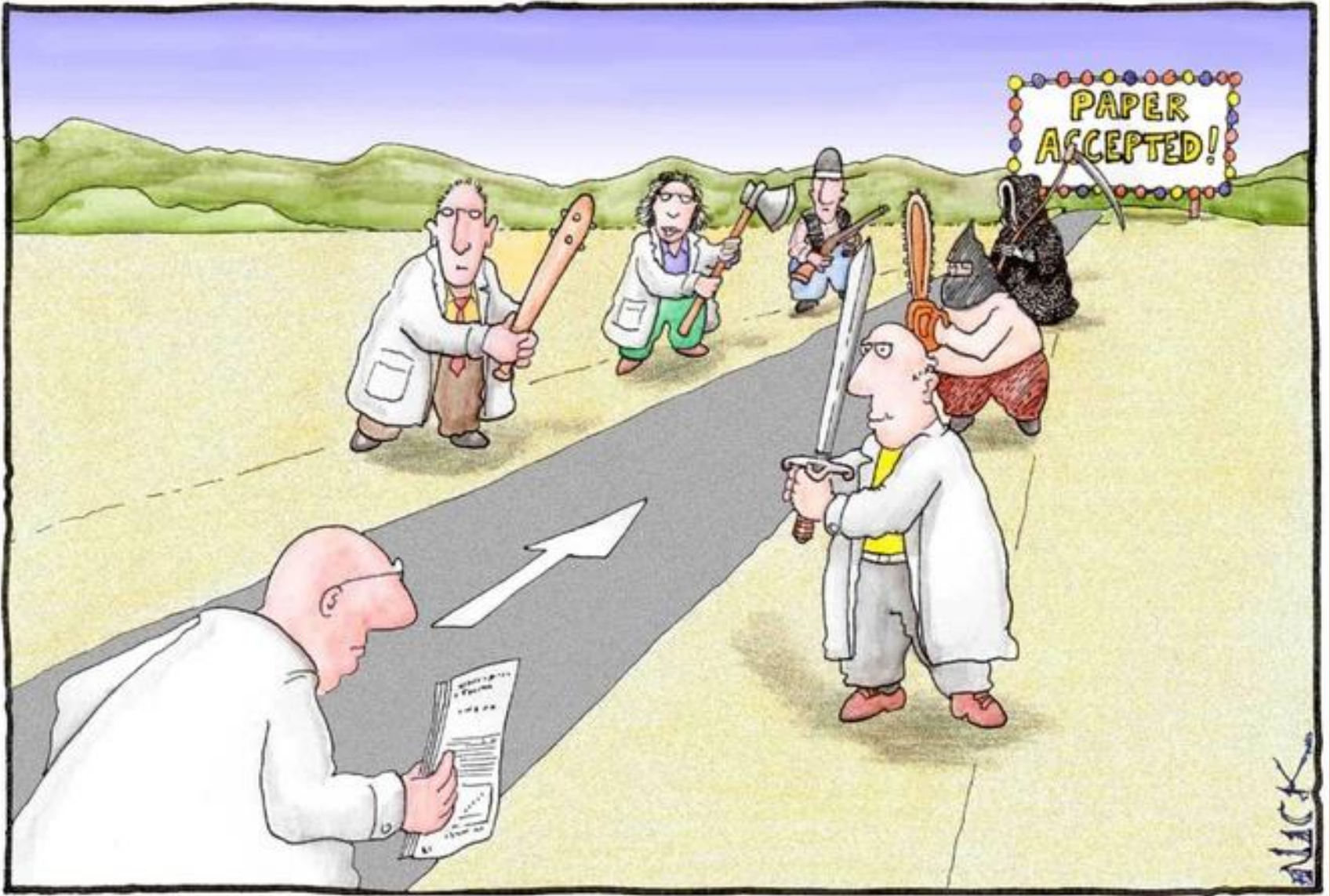
Add to this :

- Have a well defined objective
- Be self-contained
- Be understandable
- Be informative
- Add to our understanding of the state of art

Supervisor criticisms



What after writing a paper ?



Publish or perish

What after writing a paper ?

Select appropriate journal :

-Topics

- Length

- Review standards

- Impact factor of the journal

Length : Types of articles

- **Letters and rapid communications** : quick communication of significant or original advances, without including too much data or details.
- **Review paper** : summarize recent development on a specific topic, without introducing new data
- **Full article** : contain significant data detail, development and outcomes
- **Research elements** : publish research output, such as data, software, methods, videos and much more citable articles

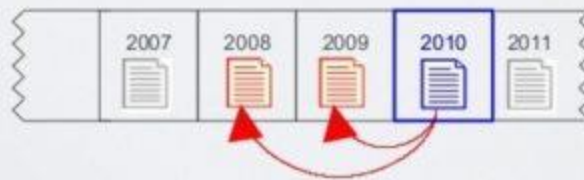
Journal Impact Factor IF

SCIENTIFIC PERFORMANCE INDICATORS (METRICS)

Impact Factor (IF)

The frequency with which an average article in a journal gets cited.

$$\text{Impact factor 2010} = \frac{\text{All citations received by Journal X in 2010 to any content published in 2008-2009}}{\text{No. of citable items published in Journal X in 2008-2009}}$$



3- Publishing process

- **Choose the right journal (Topic, IF)**

<http://ipscience-help.thomsonreuters.com/incitesLiveESI/ESIGroup/overviewESI/esiJournalsList.html>

- **Check English quality of your manuscript**

<https://webshop.elsevier.com/languageservices/>

Not for free !

- **Check the references.**

- **Download and read the guide for authors :
check template of your manuscript**

- **Ethics**

3- Publishing process

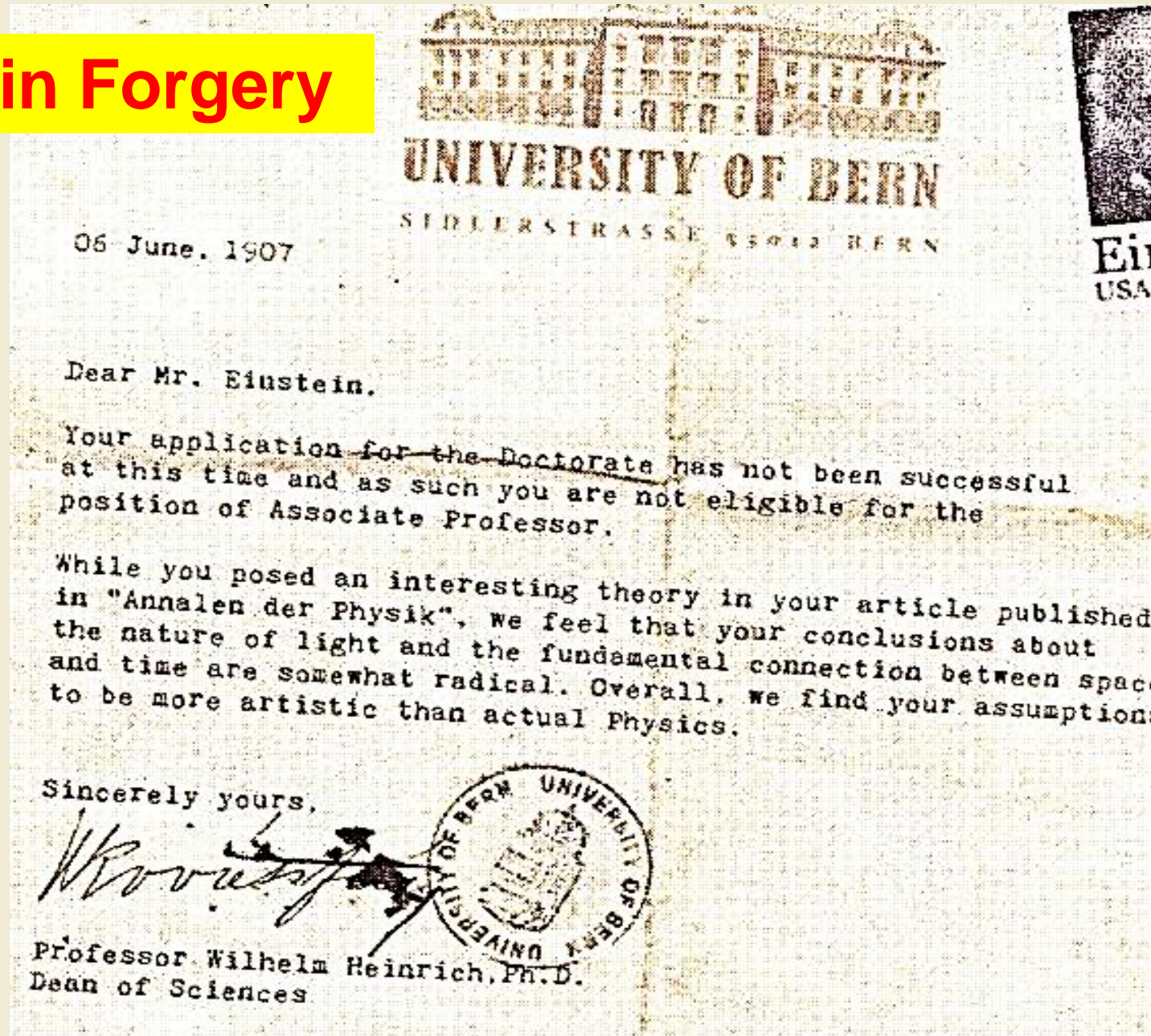
- **Prepare a cover letter**
- **Create an account in the journal web site**
- **Submit your manuscript : filling information (authors, affiliation, potential referees or reviewers, upload manuscript file, compile)**

3-Publishing process

- **Track your submitted paper**
- **After acceptance: article in press, proofing, offprints**
- **Copyright**

The Einstein Forgery

Annalen
Der
Physik
IF : 2,557
(2017)



The true story: http://www.uniaktuell.unibe.ch/2016/die_einstein_faelschung/index_eng.html