

The scientific publishing process: A few important tips on how to write and submit a successful paper

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Publishing your work

- If you don't publish your results, it is like you have never done the work.
- Nobody read theses; you must publish your results in peer-reviewed journals if you want people to know what you have done.



Selecting the right journal



- Things to consider
 - Area-specific x general journals
 - Make sure the journal is widely known in your area of expertise
 - It is important that the journals be widely available in many search engines in the web
 - Short publication times and early view are bonuses

Writing a paper: Tips for ESL and “EFL”



- Read as much as you can in English, and do not limit yourself only to scientific papers: newspapers and magazines, novels, history, philosophy, ..., whatever catches your fancy will help you become a better writer.
- **Do not** take notes in your first language – you need to write in English all the time.
- Revise, revise, and revise again your manuscript. **Writing is rewriting.** You are not going to get it right on the first trial.
- During paper revision, try changing media, from the computer screen to hardcopy. You will be surprised by how many mistakes you will catch.
- Read the most complex parts of your manuscript aloud. If it does not sound right, rewrite it.

Learn from your mistakes

- **Finally:** Pay attention to the corrections made by your supervisor so you don't keep repeating the same mistakes over and over again (especially important with word processors).



Why paying attention to English style is important when submitting a paper

“We believe the paper may be of particular interest to the readers of your journal because the study it reports this paper focused on experimental investigation of the secondary reactions of intermediate and inhibiting these reactions in delayed coking process were significant for a higher yield of the desired products.”

When relying on spell-check can get you into trouble

“The aim of this study is to provide full investigation on the structural properties of heavy metal ion solutions such as RDF, self-delusion coefficient and some dynamic properties like diffusion coefficient using molecular dynamic.”

Planning your manuscript



Introduction

Why did I do it?

Results and Discussion

What did I do?

Conclusions

What does it mean?

Organize each category:

Organize the data

Sketch figures

Put things in order

Important:

Figure out what data, figures or results are still needed to complete the outline

and subsequently complete the paper

This is an iterative process between you and your supervisor and/or collaborators

Figures

Figures *summarize* the results

Figures are generally “read” first by editors, by reviewers, and by the readers

Figures should be designed for clarity, simplicity and impact

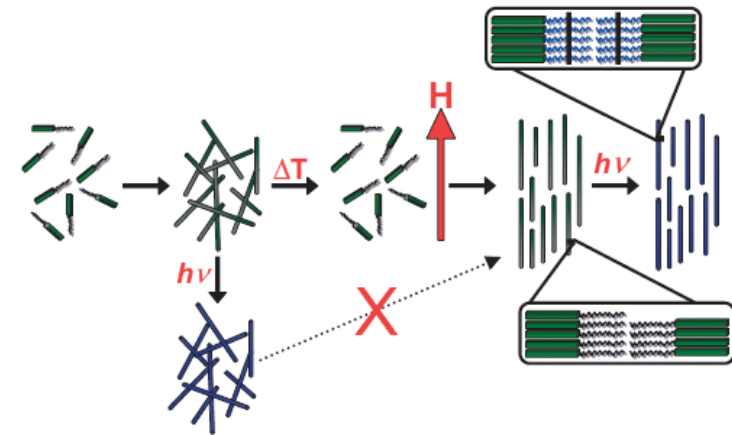

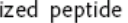
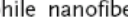
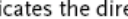


Figure 2. Schematic presentation of a strategy to obtain magnetically aligned and polymerized peptide amphiphile assemblies and the mode of their alignment.  = Peptide amphiphile monomer.  = Polymerized peptide amphiphile.  = Polymerizable peptide amphiphile nanofiber.  = Polymerized nanofiber. The red arrow indicates the direction of the magnetic field.

The text in the paper is almost secondary: it explains the data in the figures

Maximizing success: Writing the cover letter



Together with the conclusions section of your paper, the cover letter is one of the first things the editor will see, so make it count.

- Why is this topic important?
- Why are these results significant?
- What is the key result? (breakthrough!)
- Why is it an advance on previous work?
- Why are you submitting to this journal?
- Why will this journal's readers read it?
- Provide reviewer suggestions

Tip: Keep the letter as short as possible – the longer it is, the easier it becomes to overlook something important.

Example of a good cover letter



We are submitting the paper: “XXX”, by XXX to The Canadian Journal of Chemical Engineering.

We would like to inform that all authors agree to submit this work to The Canadian Journal of Chemical Engineering; the work has not been published/submitted nor is being submitted to another journal; and all authors agree to transfer the copyright to the Wiley Online Library.

This paper is innovative as it reports the use of the natural coagulant *Moringa oleifera* for fluoride removal from groundwater for human consumption. Excess fluoride in groundwater has been a problem worldwide, and it is known that its consumption beyond the limits established by legislation, may lead to serious health problems for the population.

This work proposes fluoride removal using *Moringa oleifera* coagulant as an accessible option for poor communities. The process achieves acceptable levels of fluoride in treated water in a safe manner, as this seed is widely used for water treatment in North African countries. To obtain water with colour, turbidity, and fluoride levels within the parameters required by international legislation, we present the combined process of coagulation/membrane filtration, which produces high quality water.

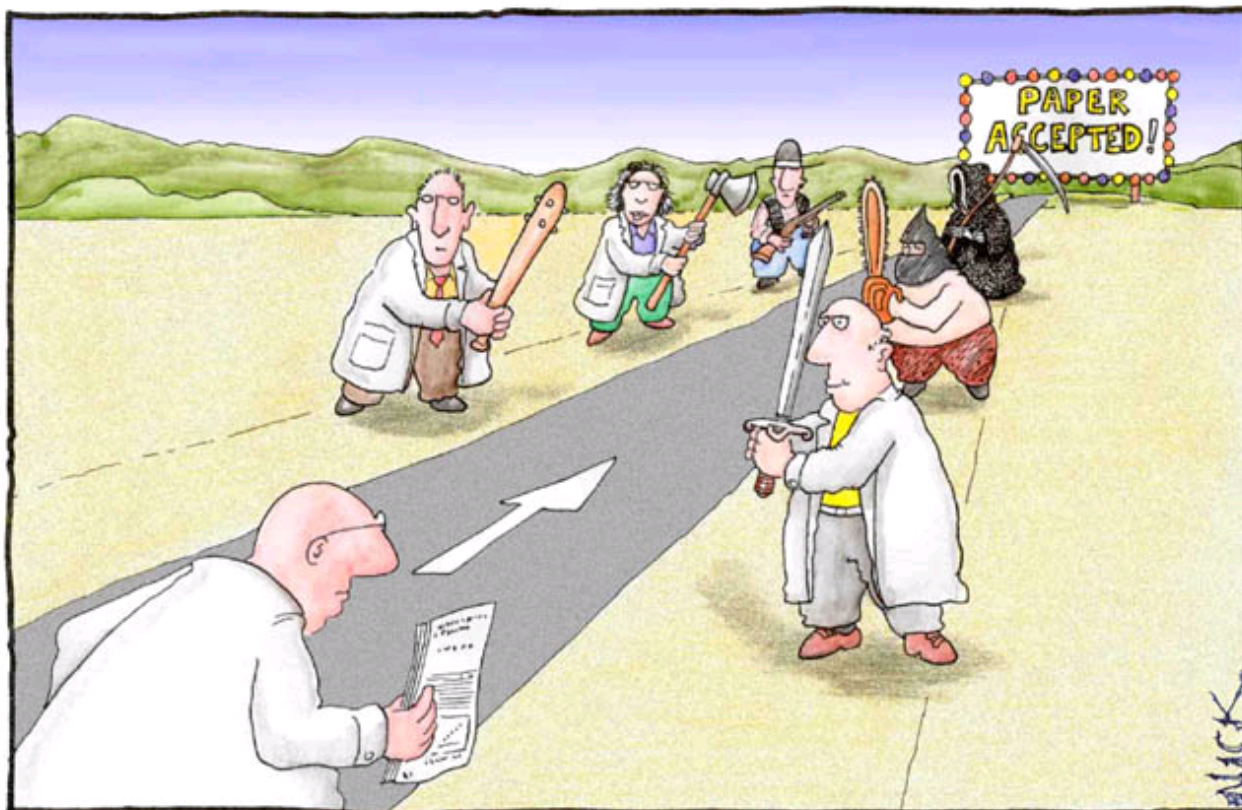
Example of a bad cover letter



We are sending the manuscript “Effect of solution pH and influence of water hardness on caffeine adsorption” to be considered for publication as article in this Journal. The authors affirm that all of them have participated in this work in a substantive way and are prepared to take public responsibility for this purpose. We assure that the text, or a similar one, has not been published before elsewhere, in print or electronically, and that it is not currently under consideration elsewhere. We hope this manuscript also contributes to promotion and protection of health, environmental health, and prevention and control of drugs like caffeine by alternative treatments. The authors nominated below have participated in the study and concur with the submission and subsequent revisions submitted by the corresponding author.

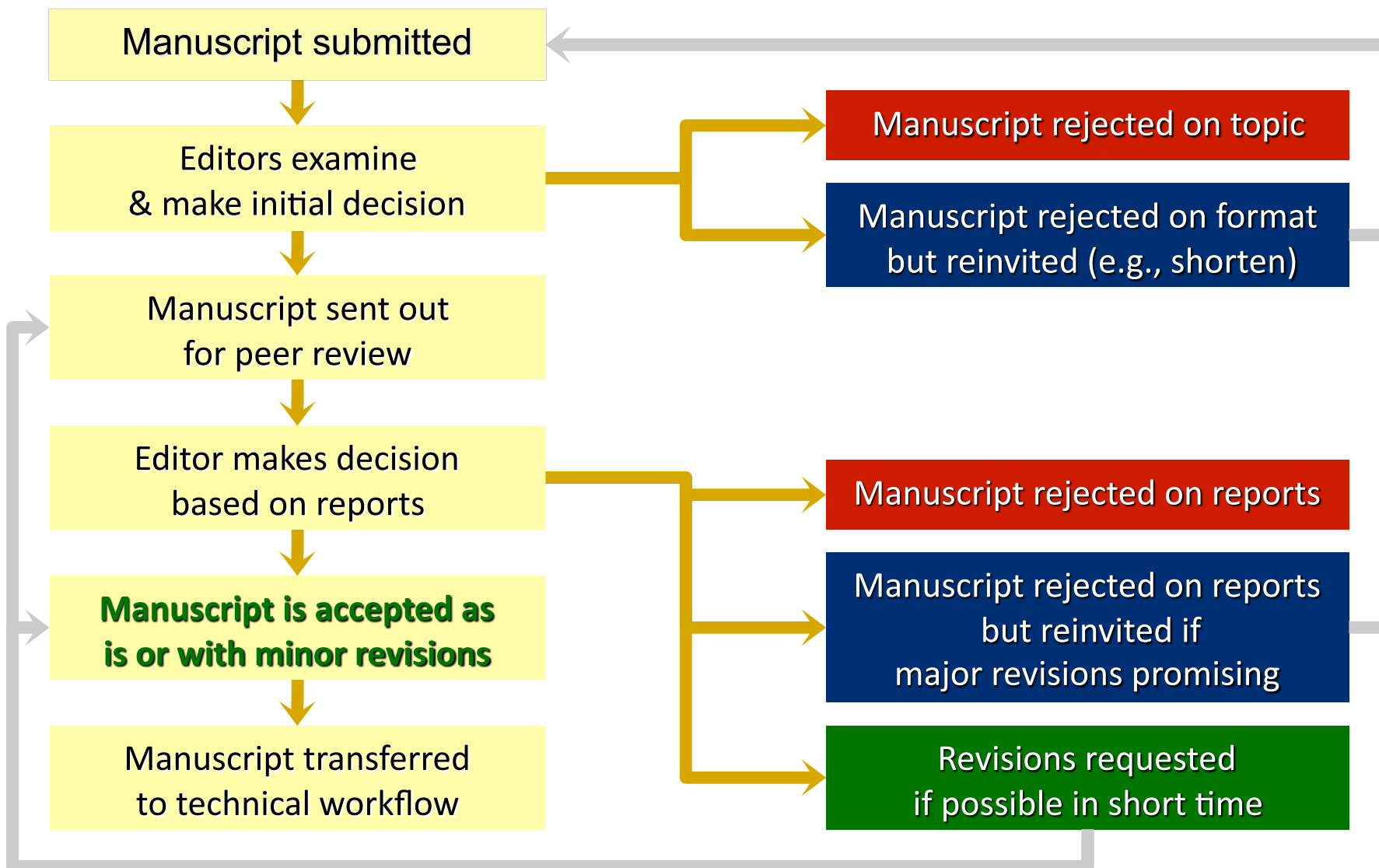
The peer-review process

- **The First Hurdle**
 - The Editor
- **The Second Hurdle**
 - The Reviewers
- **The Third Hurdle**
 - The Rebuttal Letter



Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

The editorial workflow



The 1st hurdle: The editor



Editors receive many more papers than they can publish. A few things can help you get your paper past the first screening by the editor:

- Select a journal that is adequate to the topic of your research.
- Emphasize the novelty and main contributions of your work in the **Cover Letter**.
- The **Abstract** should be concise and well written – editors use this information to check for paper suitability.
- **Introduction**: “In this paper we...” Make sure your contribution is well differentiated from the previous art.
- **Conclusions**: Concise, to the point, emphasizing relevance of your findings. Avoid the use of bullet points.
- Make sure the **References** cited in the paper are up to date and come from reputable scientific journals.

What do editors look for?

»In conclusion, we have synthesised a novel class of multifunctional nanoparticles which are capable of significantly increasing the photoconversion efficiency of flexible solar cells ...«

Conclusions section of manuscript

Keyword1 nanotechnology
Keyword2 gold nanorods
Keyword3 cancer therapy
Keyword4 medical imaging
Keyword5 liposomes
Keyword6 micelles

Keywords

- [1] W. C. W. Chan, S. M. Nie, *Science* 1998,
- [2] L. Wang, C. Y. Yang, W. H. Tan, *Nano L*
- [3] L. Y. Wang, R. X. Yan, Z. Y. Huo, L. X. Wang, Q. Peng, Y. D. Li, *Angew. Che.*
- [4] M. Bruchez, M. Moronne, P. Gin, S. We

Literature references

»Upconversion multifunctional n are synthesised in a core-shell co from lanthanide-doped NaYF₄ by

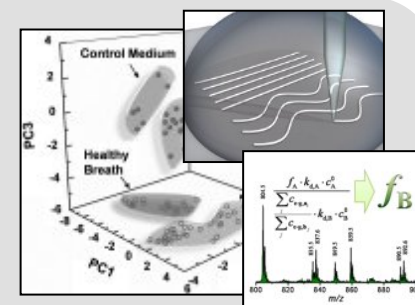
Abstract

msip.edma - 200903017 - COVER_LETTER - Windows Internet Ex...
Surname Zhang
Forename Dal
Organisation University of Tuebingen
Ms_Short_Doi 200903017
Ms_Recvd_D 02.09.2009
Ms_Type Communication
Ms_Coauthors Xiao Wang
Dr. Kai Braun
Dr. Hans-Joachim Egelhaaf
Dr. Christoph J. Bräse
Dr. Albert J. Meijer
Ms_Short_Title REC8004
High-resolution Spectroscopic Mapping of the Chemical Contrast from Nanometer Domains in P3HT/PCBM Organic Blend Films for Solar Cell Applications
Ms_Abstract
Keyword1 Solar cell blend film
Keyword2 Tip-enhanced spectroscopic imaging
Keyword3 Photoluminescence
Keyword4 Raman
Keyword5
Keyword6
Color Yes/No
Supplmt. Yes/No
Cover_Letter Manuscript resubmission (pdma.200902167)
Dear Dr. Martin Ottmar
According to your correspondence (2307/2009), hereby we resubmit our manuscript entitled
(High-resolution Spectroscopic Mapping of the Chemical Contrast from Nanometer Domains in P3HT/PCBM Organic Blend Films for Solar Cell

Cover letter



“If I am interested, my readers will be, too.”



Visual information

Selecting reviewers

Suggestions from authors

Very helpful
Not just the biggest names
please – others as well

Also list people with conflicts
of interest who should not be
asked to review

Suggestions from other reviewers

Can provide leads to
further candidates

Suggestions from our Advisory Board Members

Especially in difficult cases, appeals
or disputes we are supported by
our board members

Our reviewer database

> 10,000 active reviewers

Are found via keywords, interests,
own publication history, or reviewing
history



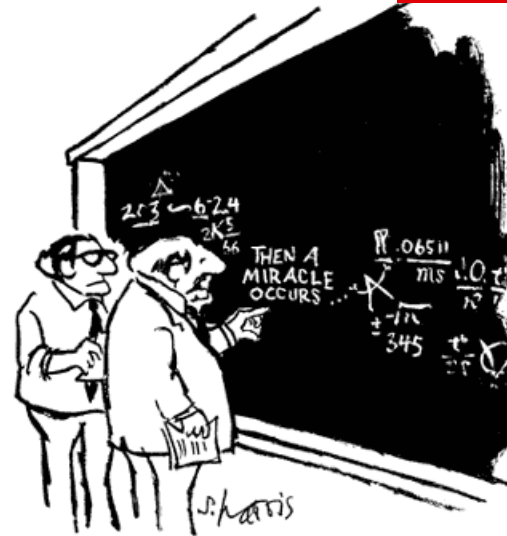
Editor's own knowledge of the community

Contacts from conferences,
prominent scientists, regular
authors, etc.

**You can help keep decision times short with good
keywords and reviewer suggestions.**

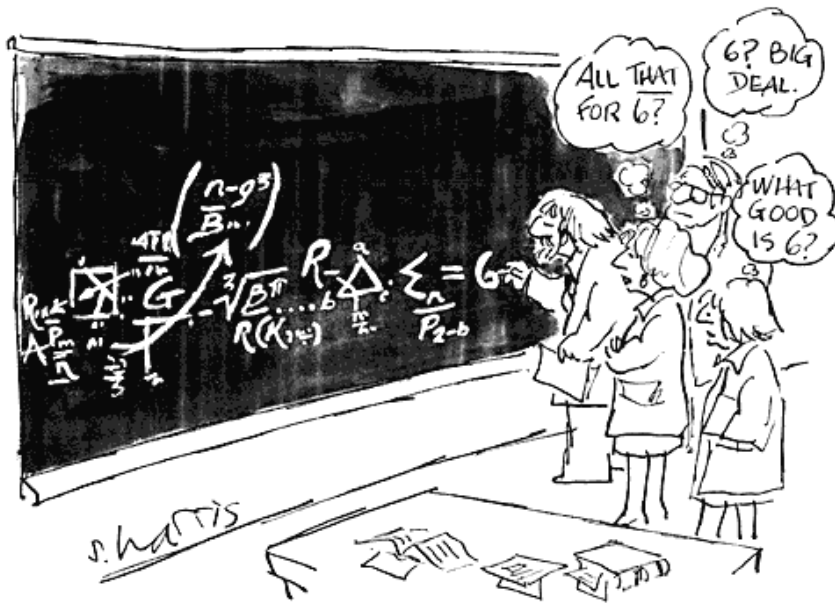
The 2nd hurdle: The reviewers

- Write clearly and explain your procedures in details. Nothing bothers reviewers more than a confusing/incomplete paper.



"I think you should be more explicit here in step two"

- Avoid pedantic language, colloquialisms, and clichés.
- Don't make a big deal of things that are obvious.



What are reviewers asked to look for?

Are the conclusions supported by the data?

Are the results important?
(Are they interesting?)

Are there any ethical questions?

Is the work novel and original?

Is the motivation important?

Is the motivation clear?



Should anything be added or removed?

Besides your general opinion, please give clear reasons for rejection or acceptance.

The 3rd hurdle: The rebuttal letter



- Answer all the questions from the referees clearly and explain which changes were adopted in the manuscript to account for their criticism.
- A list of manuscript changes is always a good idea. In addition, some authors like to highlight the changes in the manuscript.
- Papers that required many changes are often sent for a second review by the same referees, so a clear explanation of the changes is very important.
- **Don't offend the reviewers in the rebuttal letter, even if you really want to.**
- You are not expected to agree with all the comments made by the referees, but you have to explain clearly to the editor why you disagree with the comment and took no action to modify the manuscript.

The 3rd reviewer



<http://www.youtube.com/watch?v=-VRBWLpYCPY>

Ethical misconduct



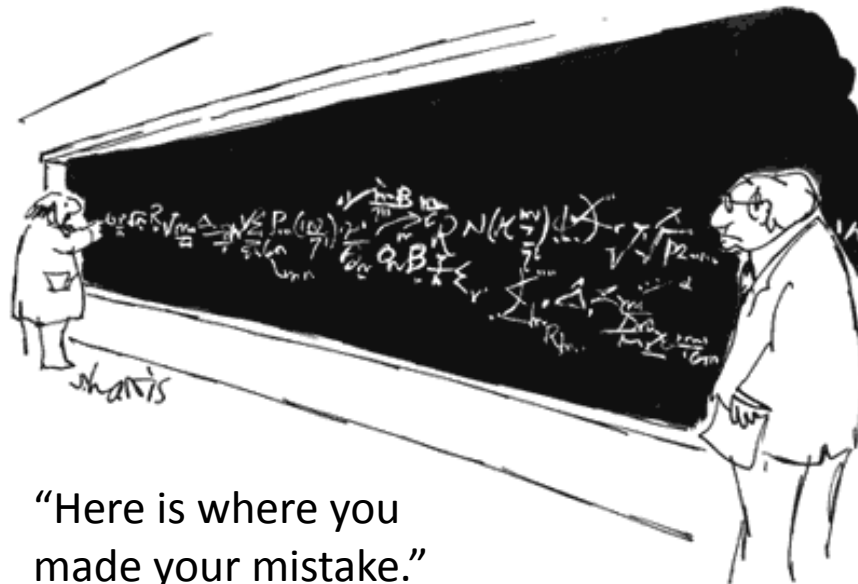
Examples of ethical misconduct that must not be tolerated:

- Falsifying data
- Fabricating data
- Plagiarism
- Multiple concurrent submissions
- Image manipulation
- Authorship misrepresentation
- Duplicate publication

All of the above can have serious consequences for the author, ranging from a letter of reprimand all the way up to criminal proceedings

And, if your paper is refused publication...

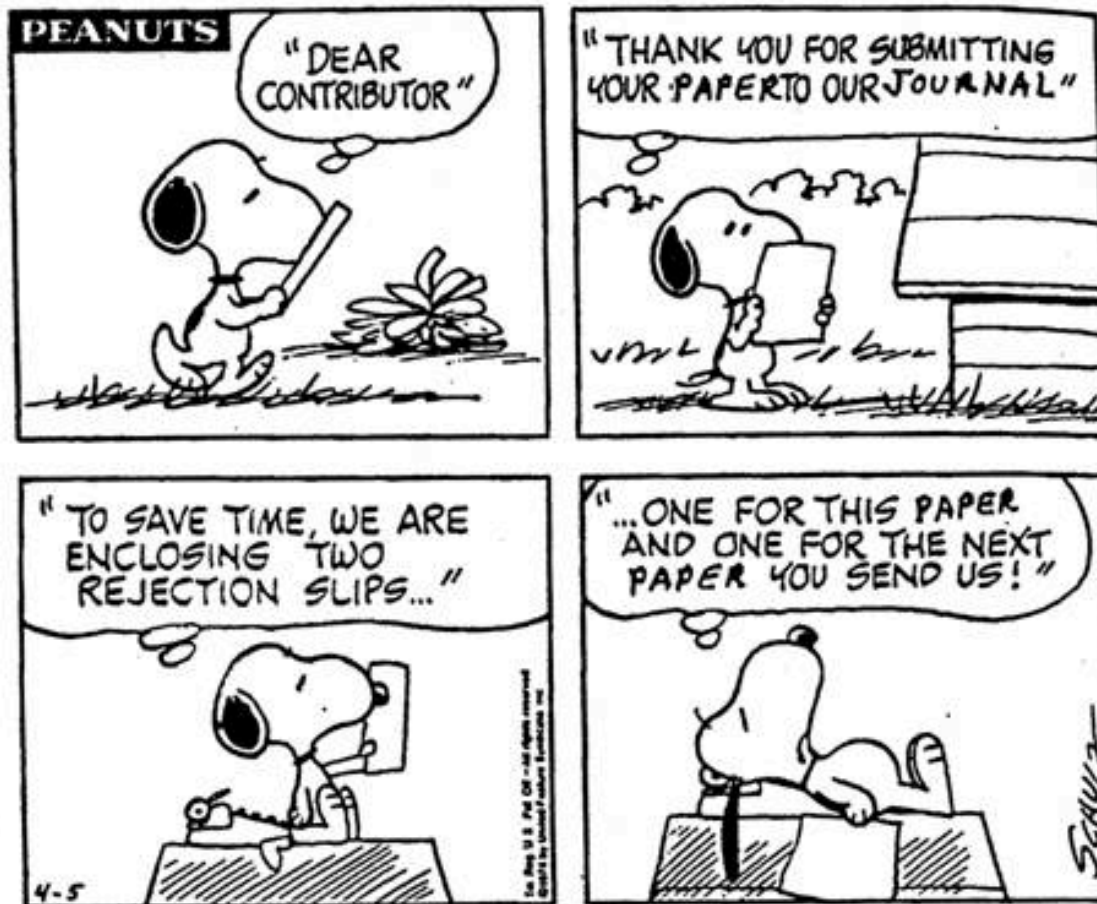
- It sucks, but don't despair. It may happen to anyone. Use the *relevant* comments from the reviewers to prepare a better paper.
- Think of it as an opportunity to get better prepared for your thesis.



“Here is where you
made your mistake.”

“A scientist is a mimosa when he himself has made a mistake, and a roaring lion when he discovers a mistake of others.” *Albert Einstein.*

Should I appeal a rejection decision?



Should I appeal a rejection decision?



Usually, no

Risk of long time to publication

Good papers are noticed and cited no matter where they are published

Criticisms may be valid

Occasionally, yes

Importance, impact or novelty missed by the editor / referees
(Need for a good cover letter)

Factual errors in referee reports that led to rejection

Award for the Best Graduate Student Paper Published in the Canadian Journal of Chemical Engineering

THE CANADIAN JOURNAL OF
CHEMICAL ENGINEERING



The Award

- A certificate
- One CSChE Conference registration
- Invited presentation
- Extended biography published in the *CJChE*

Eligibility

- Outstanding published work in the *CJChE* by a graduate student while studying at a Canadian university during a 12-month publication period.
- The graduate student must be the primary author

Questions?