Preparing Papers for Successful Publication

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Overview

- Why publish?
- Writing up your research
- Choosing a journal
- Submitting your paper
- The editorial process and peer review
- Ethics!
- Promoting your work

Why publish your research?

- Academic journals are the “bread and butter of research” – certainly in the natural sciences
- Making your results available to the scientific community
- To build on the existing academic literature
- Career advancement/notoriety - “Publish or Perish”
- Getting in before the competition!
- Communication with peers
- Validation

Study design & ethical approval

Good research should be well justified, well planned, appropriately designed, and ethically approved

(COPE: Guidelines on good publication practice)

- Research should answer specific questions, not just collect data
- Protocols / methods should be agreed by all contributors
- Consider statistical issues early in study design. Ensure adequate power and appropriate numbers of experimental units / participants
- Formal and documented ethical approval must be obtained from an appropriately constituted research ethics committee
- Research involving humans or animals will usually require a licence and full compliance with local and national regulations

Analysis & presentation of data

Ensure your data are appropriately analysed

- Fully declare and describe sources and methods used to obtain and analyse data
- Inappropriately analysed data may result in misleading or false interpretation – if deliberate this is falsification of results
- Exclusions or omissions from the data should be fully disclosed and explanations provided
- Any issues of bias should be discussed, including how they have been dealt with in the design and interpretation
- Manipulation of images should be declared and explained
- Use of previously published data and/or illustrations must be declared, the source/s acknowledged, and permissions obtained

Authorship

All authors should have contributed to the paper

- Contributions include conception, design, data collection, analysis, writing
- Authors take responsibility for the content of the paper
- All authors must be able to competently describe the paper in detail
- Avoid conflicts by deciding early who will be credited with authorship
- Conflicts of interest (financial, commercial, political, personal) – potential or real – should be declared to all authors and the editor
- Similar or related publications from all authors should be declared to all authors and the editor

- INTERNATIONAL COMMITTEE OF MEDICAL JOURNAL EDITORS has a great section on authorship, defining the role of an author etc.

Writing a paper – key points

- Strong introduction
  - What is the story you are going to tell?
- Methods
  - Clear, logically organised, complete
  - Could someone else repeat the study?
- Results
  - Clear, logically organised, complete
  - In the most appropriate format (text, tables, *or* figures)
- Discussion
  - Relevant to hypothesis or study aims
  - Emphasis on significance and implications
  - In context of existing literature

So much data – so little space

A journal does *not* want your notebook or your thesis!

The compulsion to include everything, leaving nothing out, does not prove that one has unlimited information; it proves that one lacks discrimination.

S. Aaronson (1977)

The fool collects facts; the wise man selects them.

J. W. Powell (1888)

Be concise – short and to the point is most effective

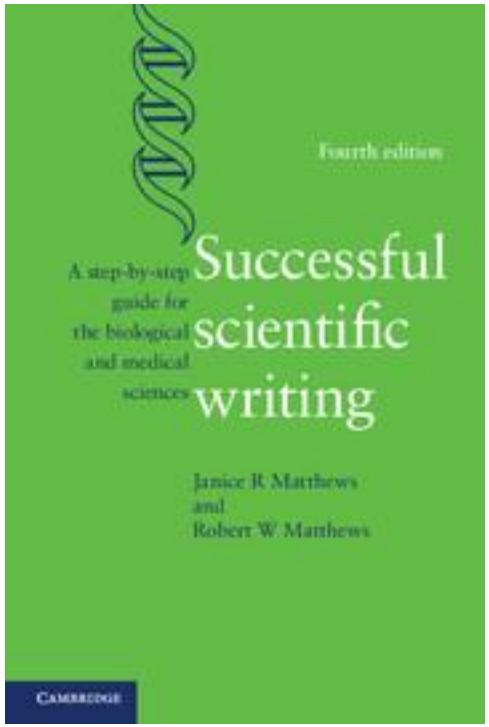
Attracting readers

Your paper is competing with many others for the attention of editors, referees, and readers

- Title
  - –Brief, interesting, accurate
  - –Should be engaging, accurate and appropriate
- Abstract
  - –Attract readers to your paper
  - –Aim for four sections: why, how, what, and implications
  - –Include important keywords for searching
  - –Make it clear, make it easy to read

1. How Diversity Works
2. United States Health Care Reform: Progress to Date and Next Steps
3. The irreversible momentum of clean energy
4. Overview of active cesium contamination of freshwater fish in Fukushima and Eastern Japan
5. Experimental evidence of massive-scale emotional contagion through social networks
6. The next wave of deaths from Ebola ? the impact of health care worker mortality
7. Why Most Published Research Findings Are False
8. When Facts Backfire
9. Medical error—the third leading cause of death in the US
10. What Are the Potential Effects of the Graham-Cassidy ACA Repeal-and-Replace Bill? Past Estimates Provide Some Clues

Honourable mention: Simulations back up theory that Universe is a hologram


Fourth edition
Successful scientific writing
A step-by-step guide for the biological and medical sciences
Janice R Matthews and Robert W Matthews
CAMBRIDGE

Björn Gustavii
How to Write and Illustrate a Scientific Paper
THIRD EDITION

Medical Writing
A Prescription for Clarity
THIRD EDITION
Neville W. Goodman and Martin B. Edwards
CAMBRIDGE

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Free Courses in Scientific Writing

Writing in the Sciences

About this course: This course teaches scientists to become more effective writers, using practical examples and exercises. Topics include: principles of good writing, tricks for writing faster and with less anxiety, the format of a scientific manuscript, peer review, grant writing, ethical issues in scientific publication, and writing for general audiences.

Who is this class for: This course is for undergraduate and graduate students; medical students; scientists; medical professionals; and science writers.

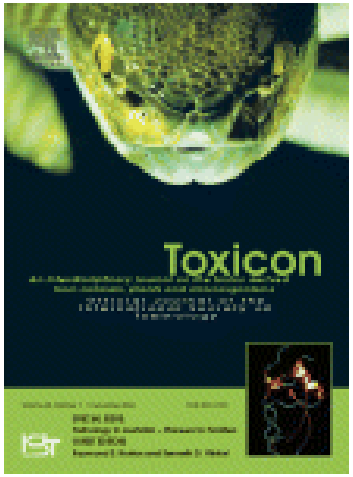
Created by: Stanford University

Stanford University

https://www.coursera.org/learn/sciwrite/#

Where to Publish Your Research?

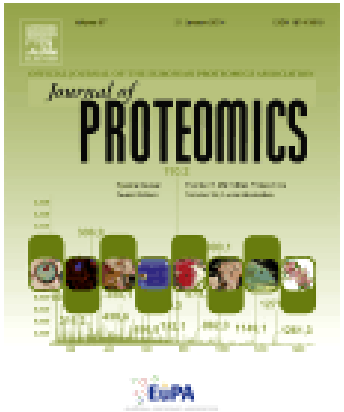
- Ask for expert advice – your academic advisor or your peers
- Each field will have its own specialist journals
- Chances of getting rejected from the most sought after journals is higher
- Choose a journal which suits the tone of your work
- Don’t let your paper drift around the journalsphere for too long!



"A central role for venom in predation by *Varanus komodoensis* (Komodo Dragon) and the extinct giant *Varanus* (*Megalania*) *priscus*)"

"Venom on ice: First insights into Antarctic octopus venoms"

"Venom proteomic characterization and relative antivenom neutralization of two medically important Pakistani elapid snakes (*Bungarus sindanus* and *Naja naja*)"



Submitting

- Make sure you have clearly read the "Instructions for Contributors"
- Correct formatting for that particular journal: length, style, format, type of file, and how to submit
- Make sure your article is the best that it can be!
- Make sure that you have secured the necessary permissions for material used in the article – quotes, pictures etc.

Journal of Fluid Mechanics

Search Journal of Fluid Mechanics

Submit your article | Information

< Back to journal

List of keywords

JFM open access - FAQs

Editorial board

Impact Factor

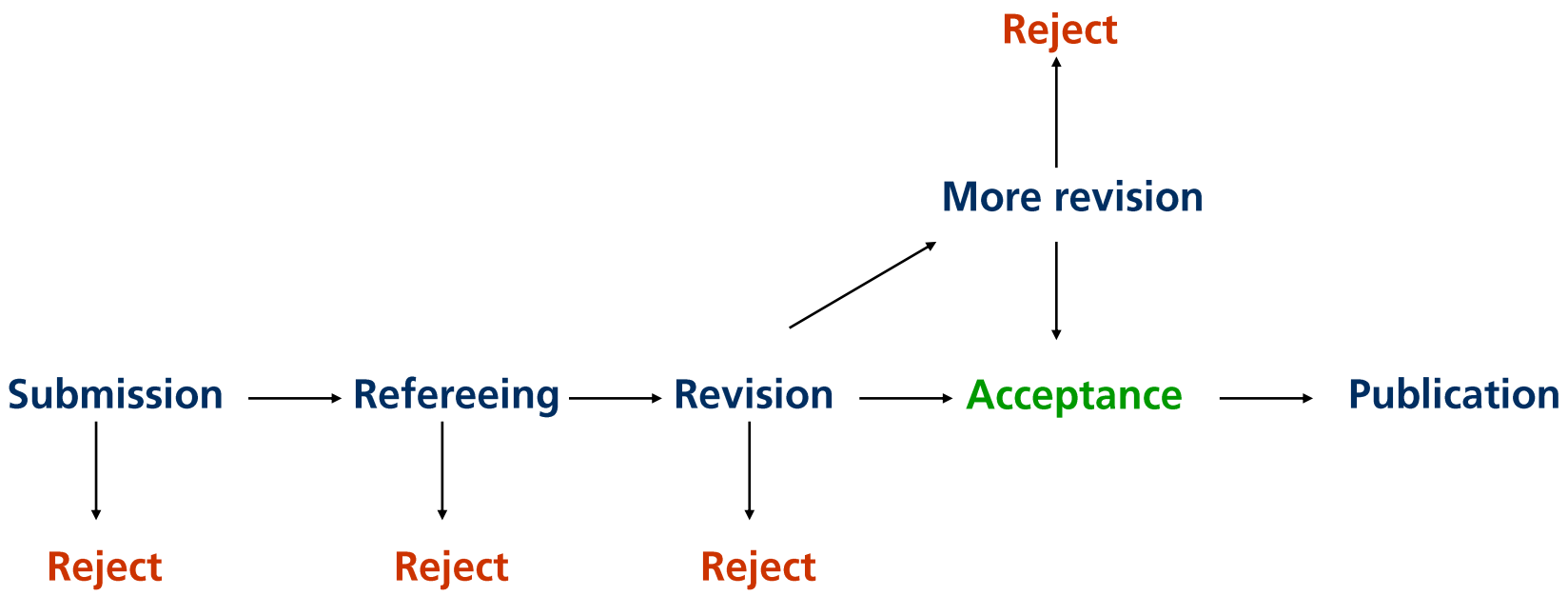
Instructions for contributors

Information

Journal of Fluid Mechanics is the leading international journal in the field and is essential reading
developments in fluid mechanics. It publishes authoritative articles covering theoretical, compu
investigations of all aspects of the mechanics of fluids. Each issue contains papers both on the
mechanics and on their applications to other fields such as aeronautics, astrophysics, biology, c
engineering, hydraulics, materials, meteorology, oceanography, geology, acoustics and combu
fully developed and supported primary research and is expected to have a clear conclusion tha
made to the advancement of fluid mechanics.

A paper is only accepted for publication in *JFM* after careful and thorough review identifying tha
terms of scientific content and clarity of exposition.

Journal Publishing Process



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Before you submit your paper

- Internal review
  - Ask your peers to read it, to get an alternative perspective
  - Ask someone outside your field to read it
- Write a covering letter to the editor
  - Should clearly explain (but not overstate) the research
  - Should explain why you have chosen this journal
- Submit with the consent of all authors and to only one journal
  - Duplicate submission wastes everyone's time
  - If detected, it will likely lead to rejection by *all* journals

What happens once you have submitted?

- Acknowledgement of receipt
- Editorial review
- Sent for peer review

- What are the drivers & motivations for the Editor?
  - Publishing new, interesting, and important research
  - Improving the profile and impact of their journal
  - Providing content the subscribers want to read (and pay for)
  - Publishing papers that will attract new authors and readers

What is the Editor seeking?

- Quality!
  - Good research: well planned & well executed study
  - Good presentation
- Novelty, significance, originality
- Consistency with scope and direction of journal
- Demonstrated broad interest to readership
- Will it cite?
- Interesting, well written ‘story’
- Clarity and honesty

Editorial ethical issues

Editors are responsible for everything published in their journals. They must ensure:

- Integrity of the academic record
- Fair, objective assessment of all submissions
- Identities protected as appropriate
- Unpublished work remains confidential while in review
- All research conforms to accepted ethical guidelines; appropriate permits obtained
- Business needs do not compromise intellectual standards or freedom of expression

- It's worth having a look at Retraction Watch (link in the references section)

Retraction Watch

Cell

CellPress

Volume 163, Issue 5, 19 November 2015, Pages 1214-1224

Article

RETRACTED: Calcium and SOL Protease Mediate Temperature Resetting of Circadian Clocks

Ozgur Tataroglu, Xiaohu Zhao, Ania Busza, Jinli Ling, John S. O'Neill, Patrick Emery

Show more

https://doi.org/10.1016/j.cell.2015.10.031

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Referred to by Ozgur Tataroglu, Xiaohu Zhao, Ania Busza, Jinli Ling, John S. O'Neill, Patrick Emery

Retraction Notice to: Calcium and SOL Protease Mediate Temperature Resetting of Cir...

Cell, Volume 171, Issue 1, 21 September 2017, Pages 256

PDF (35KB)

This article has been retracted: please see Elsevier Policy on Article Withdrawal (http://www.elsevier.com/locate/withdrawalpolicy).

Peer-review ethical issues 1

- **Reviewers must be appropriate and able to comment usefully**
- **Editors should respect requests from authors not to use a particular reviewer, if these are well reasoned**
- **Reviewers must declare any possible conflict of interest to the Editor**
  - –competing unpublished results, personal disagreements, previous review of the same paper, involvement with the work, close association with the author(s), financial dealings
- **Reviewers have a duty of confidentiality during assessment**
  - •Should seek the Editor's permission to obtain additional advice from colleagues
  - •May not use data, arguments or interpretations without the authors' consent

Referee reports
One paper, two perspectives

Reviewer Number 1

Title XXX

Authors YYY

Quality of the Science

Mostly competent, suffering from serious flaws

Importance of the Science

Important research on topic of broad significance; novel aspects

Quality of Science Rating 3/5

Importance of Science Rating 3/5

Overall Assessment

Reject in present form, but encourage submission of new manuscript

Reduction in Length

Yes

Reviewer Number 2

Title XXX

Authors YYY

Quality of the Science

Experimentally and/or theoretically excellent, reliable data, no flaws

Importance of the Science

Important research on topic of broad significance; novel aspects

Quality of Science Rating 4/5

Importance of Science Rating 4/5

Overall Assessment

Accept after minor revision; no further referee assessment

Reduction in Length

No

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What does the author see?

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Responding to referee reports

- Read the editor's letter first for instruction
- Take a deep breath
- Read the reports
- Put them aside for a day to a week
- Re-read the reports, discuss with co-workers
- Revise the paper and prepare a response document

- Even comments that seem aggressive or ignorant can be helpful
- Always view this as a chance to improve the paper

Getting a positive decision

- If you've been asked to revise the paper, the Editor thinks you have something worth publishing

- The Editor will make a final decision based on how well the referees' reports have been addressed, so
  - -Revise with care
  - -Respond fully to each of the referees' comments
  - -Present cogent and complete arguments if you have not followed a referee's recommendation
- Once your article is published, celebrate! ☺ The next day, update your resume / C.V.

Make the Editor's job as easy as possible

Concluding remarks

Writing for successful publication means

- having a well designed, original study to write about
- knowing what you want to write and why
- understanding who you are writing for
- writing clearly and honestly
- making the story interesting
- highlighting the significance of the results
- responding carefully and positively to referees' reports

Useful Links

Committee on Publication Ethics
www.publicationethics.org

International Committee of Medical Journal Editors
http://www.icmje.org/

Retraction Watch http://retractionwatch.com/