12.03.2025

Scientific Publishing

From Writing to Sharing

Dr. Michael Bachmann & Dr. El Knappe

Program

Time	Topic
09:00 – 09:40	**Part 01**
	Break 5`
09:45 – 10:30	**Part 02**
	Break 15`
10:45 – 11:15	**Part 03**
	Break 5`
11:20 – 12:00	**Part 04**

→ Slides ?
Lib4RI website: https://www.lib4ri.ch/trainings

→ Feedback !
Direct, email, social media, …

What is your current understanding of the scientific publishing process:

Menti.com w/ code 6886 0771

Not a quiz (completely anonymous) – this to help us continue to improve this course in the future

What questions do you have about the scientific writing process?

Menti.com w/ code 6886 0771

What part of the scientific writing process do you want help with?

Menti.com w/ code 6886 0771

Warm up exercise

- Introduce yourself and discuss with your neighbor:
  - **Why do you want to publish? Why bother at all?**

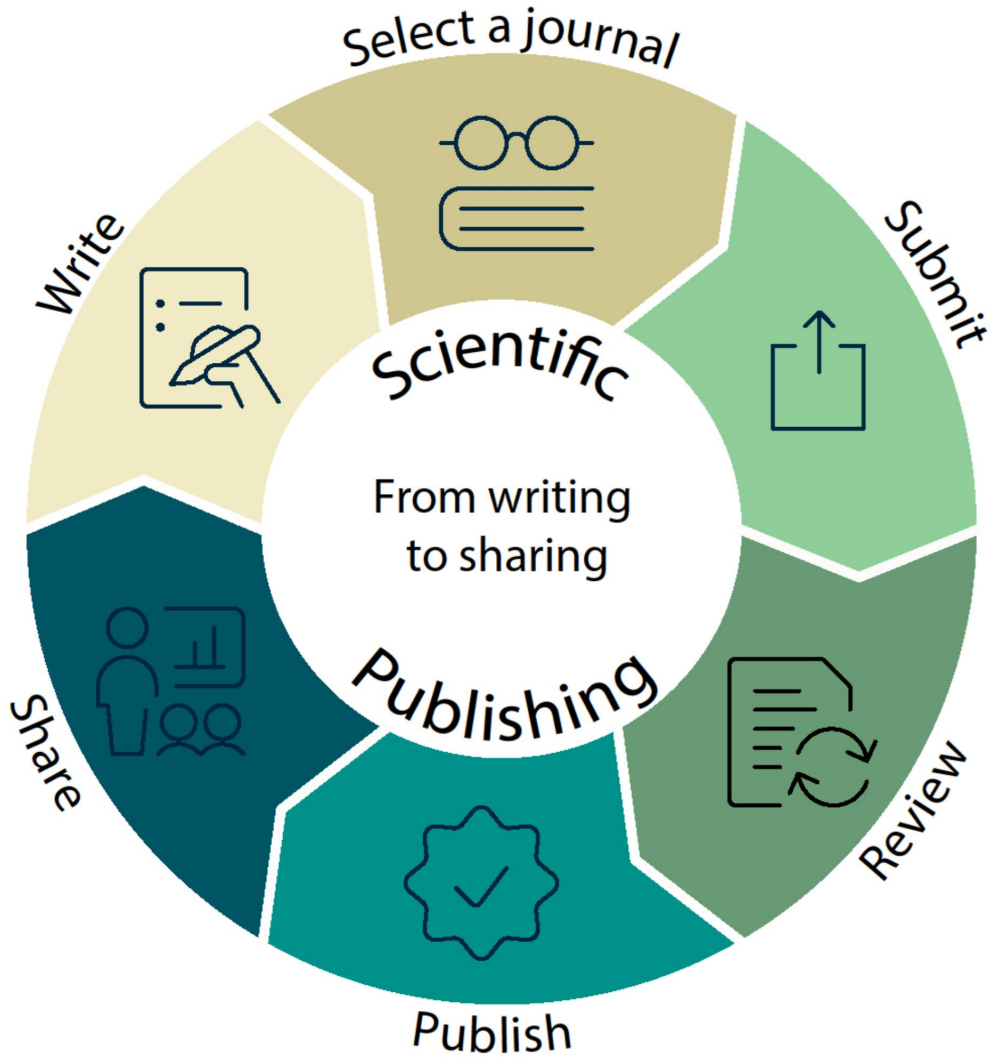
Publishing: Why bother?

- Career requirement
  - Academia
  - Industry
- Share your findings / expertise / knowledge with others.
- Have an impact on others / your research field / society.
- …


Select a journal
Submit
Review
Publish
Share
Write
Scientific
Publishing
From writing
to sharing

Scientific Publishing

- How to find help and how to improve
  - This course
  - Lib4RI website + info sheets
  - (AI) tools
  - Colleagues
  - Journals
  - Read, read, read
  - Practice, practice, practice
    - Find out what you like and develop your style.



Resources to help with scientific writing

Getting started with the writing process:

Concept mapping & outlining
Method to organize your thoughts
Many resources exist, but try here are two options:
Concept mapping & Outlining

Essential principals on clear and consice writing:

Elements of Style by William Strunk Jr.
Rules and examples of how to communicate more effectively while writing
A very concise reference
Full book available online via Project Gutenberg

English tenses:

Which tense when?
The tense will change depending on which section you are writing. Here are a few references to help:
UNR & AJE

Writing & research:

Whitesides' way of doing research
"Writing is an integral part of research, not a separate activity"
Use writing to help manage your research
Link to a presentation on the method here

Whitesides, 2004, Adv. Mat., doi:10.1002/adma.200400767

Scientific writing and publishing process:

Lib4RI info sheet & website
Quick review version of this presentation as well as copies of this presentation

Do you have additional resources you like? Let us know!

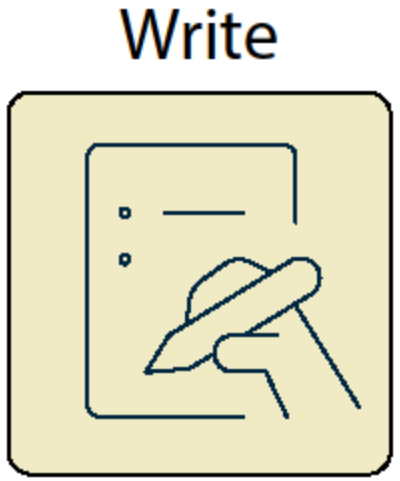
Scientific publishing changes a lot

- Preprints vs. Peer-reviewed
- Open access, open data, open science
- Innovating peer review system
- Increasing number of authors, shared positions in author list (contributed equally)
- Only 1 round of revision?
- Relevance of impact factor
- …

→ Check your journals of interest: website → «For Authors» section

→ Discuss with others about their experiences


Select a journal
Submit
Review
Publish
Share
Write
Scientific
Publishing
From writing
to sharing


Write

What's the most important part of the manuscript in your field?

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What's the hardest part of the manuscript for you?

Menti.com w/ code 6886 0771

What part of the manuscript do you write first?

Menti.com w/ code 6886 0771

Section title

How to read the following content slides:

- Slight description and additional information on the section

General guideline to help you think about what should go in each section

This can vary greatly by field. This was developed with a physical science scientific article in mind.

Typical components of each of these sections

A general approach/thought process for each section

Based on conversations between W.P. Gardner & E. Knappe

Tips and resources you might find helpful

Possible sections of a research article

- Title
- Authors
- Affiliations
- Keywords
- Highlights\Key points
- Layman description\Plain language summary
- Abstract
- Graphical abstract
- Introduction
- Material & Methods
- Figures and Tables
- Results
- Discussion
- Conclusions
- Supplementary Material
- Acknowledgements
- Author contributions
- References
- …

Tip: Check your journal ‘For author’ section on their website to know which sections are required and their associated requirements. Not every section is needed before acceptance.

Title

- **Concise, specific, engaging**
  - Do:
    - Title that is easily searchable/indexed
    - Sparks curiosity
  - Don’t:
    - Use unnecessary jargon
    - Abbreviations
    - Ending a title in a question mark

What to consider when developing your title:

What is your main finding?

What is new/interesting?

3-5 keywords

Combine & refine into a short, specific and interesting title

Key points\Highlights

- Short and sweet
- Meant to convey the main point or conclusions of the article
- Typically, are limited in length

What is the main point of your article?

What do you want the readers to take away?

Tip: Sometimes its helpful to write down your key points and have them handy as you develop your manuscript. This can help make sure you are staying “on theme” or help refine and change your key points as you develop your manuscript.

Abstract

- Standalone summary
- Editors and readers will decide if they read your article based on the title and the abstract.
- Abstract and title can have length limitations – be sure to check before submission

What did you do? (~1 sentence)

How did you do it? (~2-3 sentences)

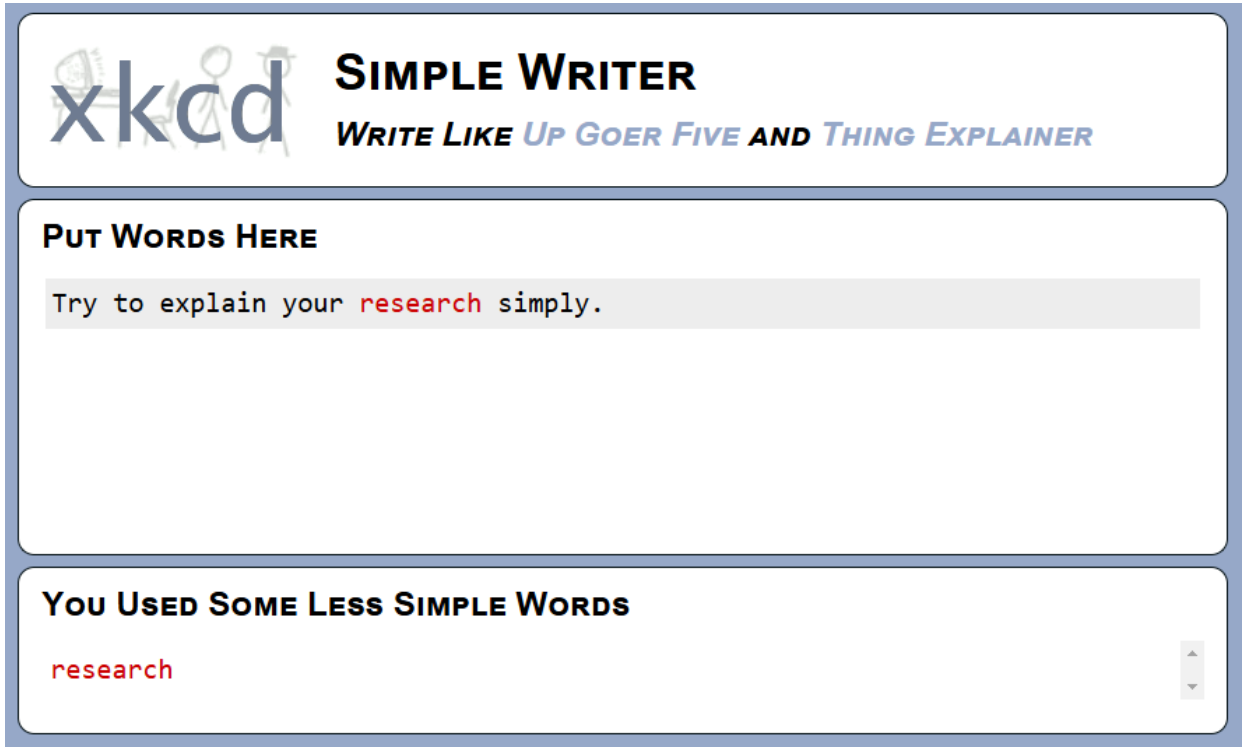
Key results (~2-3 sentences)

Implications/impact (Final sentence)
Broad new process/insight

Tip: Some researchers find it easiest to write the abstract after the rest of the paper is written

Plain language summary/Layman description

- Short summary of your paper using non-technical terms
- Used to explain your research to a broader audience
  - This is your “elevator pitch”
  - How would you explain your research to a family member, friend or a non-researcher?



xkcd.com/simplewriter/

Tip: Need help reducing technical terms/scientific jargon? Check out: https://scienceandpublic.com/

What I want readers to take away from reading this paper, especially the last point

RESEARCH ARTICLE
10.1029/2019JB018469

Key Points:
- The Turkana Depression accommodates divergence through localized extension
- African extension is accommodated by a combination of high and low strain rates
- Topographic gradients appear to influence the style of extension throughout the African rift system

Supporting Information:
- Supporting Information S1
- Supporting Information S2

Correspondence to:
E. Knappe,
ellen.knappe@umontana.edu

Citation:
Knappe, E., Bendick, R., Ebinger, C., Birhanu, Y., Lewi, E., Floyd, M., et al. (2020). Accommodation of East African Rifting across the Turkana Depression. *Journal of Geophysical Research: Solid Earth*, *125*, e2019JB018469. https://doi.org/10.1029/2019JB018469

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Accepted 30 JAN 2020
Accepted article online 12 FEB 2020

Everyone should understand this section. Honestly, I think I could have done better here. There is too much jargon.

Accommodation of East African Rifting Across the Turkana Depression

Short, concise, descriptive

E. Knappe[1], R. Bendick[1], C. Ebinger[2], Y. Birhanu[1], E. Lewi[3], M. Floyd[4], R. King[4], G. Kianji[5], N. Mariita[6], T. Temtime[7], B. Waktola[3], B. Deresse[3], M. Musila[6], J. Kanoti[5], and M. Perry[1]

[1]Department of Geosciences, University of Montana, Missoula, MT, USA, [2]Earth and Environmental Sciences, Tulane University of Louisiana, New Orleans, LA, USA, [3]Institute of Geophysics, Space Science and Astronomy, Addis Ababa University, Addis Ababa, Ethiopia, [4]Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology, Cambridge, MA, USA, [5]Department of Geology, University of Nairobi, Nairobi, Kenya, [6]Geothermal Energy Training and Research Institute, Dedan Kimathi University of Technology, Nyeri, Kenya, [7]School of Earth Sciences, University of Bristol, Bristol, UK

Abstract Geodetic observations in the Turkana Depression of southern Ethiopia and northern Kenya constrain the kinematic relay of extension from a single rift in Ethiopia to parallel rifts in Kenya and Uganda. Global Position System stations in the region record approximately 4.7 mm/year of total eastward extension, consistent with the ITRF14 Euler pole for Nubia-Somalia angular velocity. Extension is partitioned into high strain rates on localized structures and lower strain rates in areas of elevated topography, as across the Ethiopian Plateau. Where high topography is absent, extension is relayed between the Main Ethiopian Rift and the Eastern Rift across the Turkana Depression exclusively through localized extension on and immediately east of Lake Turkana (up to 0.2 microstrain/year across Lake Turkana). The observed scaling and location of active extension in the Turkana Depression are inconsistent with mechanical models predicting distributed stretching due to either inherited lithospheric weakness or reactivated structures oblique to the present-day extension direction.

Plain Language Summary The continent of Africa is breaking up into multiple pieces. This divergence is accommodated through extension along the East African Rift System. The Turkana Depression, which lies on the border of Ethiopia and Kenya, is of interest due to its previous rifting episodes, low elevation compared to the surrounding rift system, and location linking more prominent rift valleys to the north and south. Global Position System observations of surface velocities show that extension in the Turkana Depression is confined to a narrow region, not distributed across a broad area. These results suggest the East African Rift System is accommodating the breakup of the African continent through a combination of distributed deformation in areas with high topography and localized extension across low elevation rift basins.

Abstract breakdown:

What did I did : use geodetic observations in east Africa to constrain kinematics

How I did it : GNSS observations

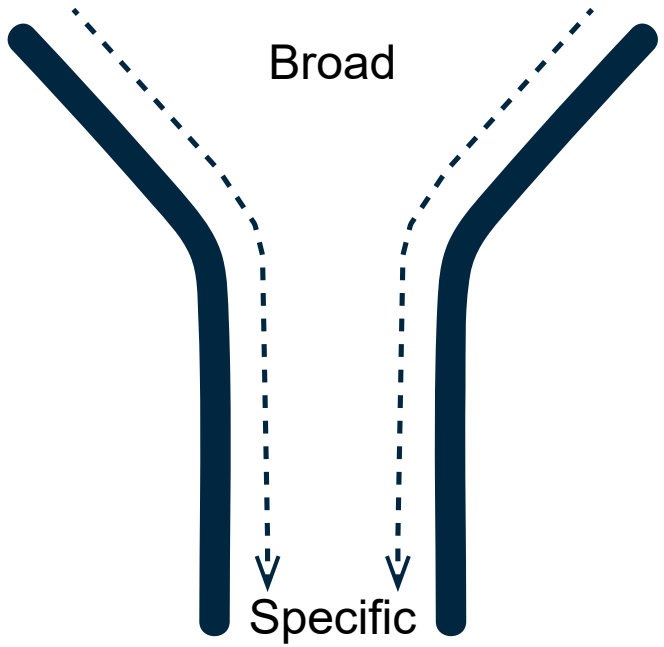
Key results : areas of high topography = high strain rates localized on structures and low strain rates across the plateaus; Low topography (Turkana Depression) = exclusively localized strain rates

Implications : Mechanical models are not accurately representing the rift

A researcher in my field will be able to understand this

Introduction

- Set up the context and importance of your objectives
- Typically starts broad and becomes more specific



Problem statement (broad, ~1 paragraph)
Why is this research important? What is the broad problem?

Scientific background (~2-3 paragraphs)
What has been done? What do we already know?

Statement of contribution (last sentence in scientific background)
What is the problem this research is addressing?

Remaining question (Final paragraph)
What is the contribution this research is making?
1-2 sentence on the basic method used
Fundamental results and implications
“In this paper we investigate….”

Methods

- Detailed procedure
- Enough information so that someone can repeat your experiment
- Some details can go in the supplement, but anything in the supplement must be referred to in the main text
  - For short articles, (e.g. communications) this entire section may be in the Supplementary materials

Method of solution – how did you do it

- Theory/equations
- Lab/field measurements
- Models
- Numerical code
- Materials, chemical
- Instrumental techniques
- Data analysis
- Domain/geographic region
- Boundary/initial conditions/parameters

Results

- Findings without interpretation
- Put the results that are needed to answer the question you proposed in the introduction
- No interpretation in the results – save it for the discussion

What did you find?

Majority of this section is likely to be tables and figures

Make sure you write good captions – e.g. someone should be able to understand the figure/table just without reading the manuscript and only reading the captions. Some researchers will only look at the figures/tables and not read the manuscript.

Results

RESEARCH ARTICLE

Journal of Cell Science (2022) 135, jcs258764. doi:10.1242/jcs.258764

between the two cases mentioned above. This is highlighted by the magnified panel for talin-1 in Fig. 1 which shows focal adhesions with continuous and spot-like organizations of talin-1 next to each other.

Thus, SIM gave the impression of spatial distributions within focal adhesions that differed between different adhesome proteins but also depended on the phosphorylation status, as shown for pPax-Y118 in comparison to paxillin.

Phosphorylated paxillin organizes in clusters with regular spacing to each other

Context

Surprised by the difference in the paxillin and pPax-Y118 staining patterns, we decided to analyze their spatial organization in a quantitative manner. We labeled endogenous paxillin in REFs, as well as pPax-Y118 (Fig. 2A). Magnifications of single focal adhesions confirmed our earlier observation that paxillin is organized rather homogenously throughout adhesions, while pPax-Y118 localized in discrete clusters (Fig. 2A′–A‴). To analyze differences between spatial distribution of paxillin and pPax-Y118, we applied two independent methods to detect intensity peaks and to measure distances between these peaks. We used a published ImageJ-based plugin (NanoJ Core, Laine et al., 2019) to measure nearest-neighbor (NN) distances and independently developed a custom-written MATLAB routine that measures the center-to-center distance of the intensity maxima of labeled proteins (Fig. S1A). Using both methods, we analyzed our SIM images of pPax-Y118 and performed an analysis of paxillin labeling using the NN method as reference. From these distance values, we created histograms and plotted the average distance distribution based on histograms from independent experiments (Fig. 2B). These distance distribution plots revealed a narrower distance distribution of pPax-Y118 intensity peaks compared with that of paxillin and a peak distance that was shifted towards shorter distances for pPax-Y118. A quantitative comparison confirmed the impression of shorter distances between pPax-Y118 maxima (Fig. 2C; 555 nm with NN measurements and 469 nm with our MATLAB-based algorithm) compared with paxillin (616 nm). The distance distribution of pPax-Y118 also appeared more centered around the peak indicating less variation in distances between intensity maxima. We quantified the full-width half-maxima (FWHM) of distance distributions (Fig. 2D), which indeed revealed significantly smaller FWHM for pPax-Y118 compared with paxillin. Our MATLAB code also allowed us to measure the diameters of detected spots (Fig. 2E; paxillin, 332 nm; pPax-Y118, 267 nm) and to plot the number of detected spots within an adhesion against the length of that adhesion (Fig. 2F). Additionally, we tested the spatial distribution of vinculin (Fig. S1B–D) and found that the distances between vinculin maxima were broadly distributed, similar to those of paxillin.

Content

Overall, these data and their analyses showed that pPax-Y118 forms ‘spots’ or spatially constrained clusters. These clusters are closer to each other and have a more regular spacing compared with clusters analyzed for paxillin. We believe that these analyses correspond well with the visual impressions from Fig. 1 and Fig. 2A, and show that pPax-Y118 has a stronger tendency to be constrained in clusters whereas paxillin and vinculin seem to lack a well-defined pattern within adhesions.

Conclusion

Additionally, to confirm that the differences in spatial distribution were not induced by labeling artefacts, we performed titration

Bachmann et al., JCS, 2022, doi: :10.1242/jcs.258764

Tip: Try the context-content-conclusion (C-C-C) scheme

Mensh and Kording, 2017, Plos Comput Biol, look for Rule 3 : https://doi.org/10.1371/journal. pcbi.1005619

Figures & Tables

- Communicate complex information
- Should be referred to in manuscript in chronological order
- Check the author's guide for your journals limitations/recommendations
  - Some journals figures/tables count towards word count/publication lengths

Good Captions
e.g. someone should be able to understand the figure/table just without reading the manuscript and only reading the captions. Some researchers will only look at the figures/tables and not read the manuscript.

Easily readable axes and labels
Generally this larger then you think

Consider color blindness
e.g. many people can not differentiate between green and red\

Tip: Keep components of the figures so you can easily edit them later. Figures are often changed in the review process so keeping the code/data/files for ease of editing will save you time later.

Figures

With a NEW neighbour, how would you improve this figure?

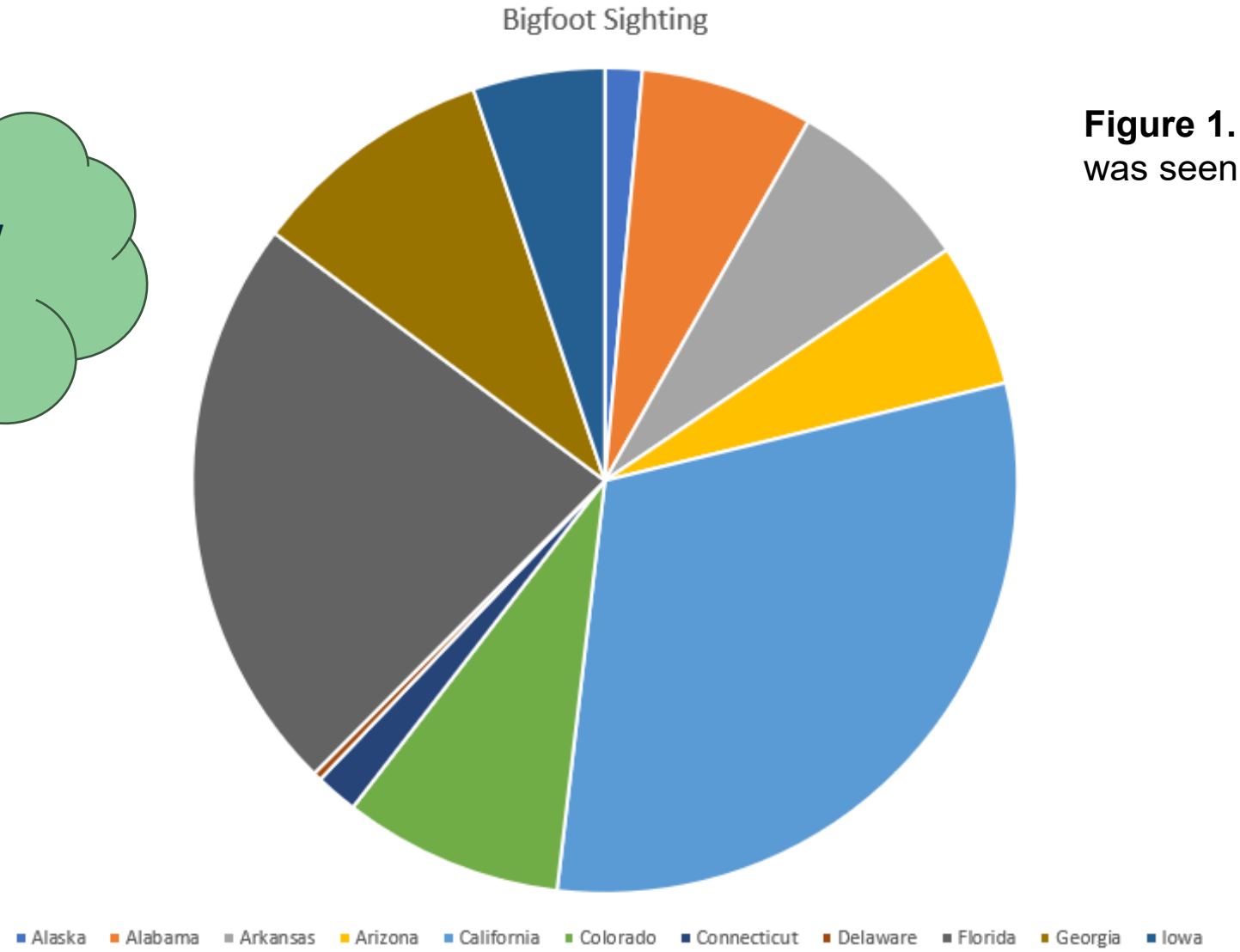


Figure 1. Fig shows where Bigfoot was seen.

Data provided by BFRO (Bigfoot Field Researchers Organization)

Resources for good figures

Ten Simple Rules for Better Figure Making article

Simplified Science Publishing blog post

The Visual Display of Quantitative Information
by Edward Tufte
Great book on making good figures
Physical copies at all the Lib4Ri library locations

Discussion

- Interpretation and evaluation of your results
- No new data should be brought up in the discussion
- Refer to results chronologically

Answer your question

Compare your results
- Discuss nuance (anomalies, specific data)
- Limitations of your study

Compare results to what exists in the literature

Implications/significance of findings

Conclusion

- In some fields, conclusion paragraphs are not needed
- Typically short, precise and impactful

Tip: Link the conclusion and the introduction, sometimes its helpful to write at similar times.

Contribution – what did you do

Summarize important results
Try not to be repetitive with the discussion

Broad implications and other possible applications

Some fields include future possibilities/direction
Others recommend against doing this – e.g. this should be obvious if the paper is well written and/or this is something you are already working on and will publish soon so unnecessary to include here

Acknowledgements

- Funding agencies & grants
- Software/models used (if not your own)
- Data used (if not your own)
- Additional help:
  - Sometimes a really helpful review can be indicated here
  - If someone helped with data collection/field work or was vital in facilitating your work but was not an author

References

- Some paper have citation limits
  - Do not cite just to cite
  - Make sure you the citation represents the statement

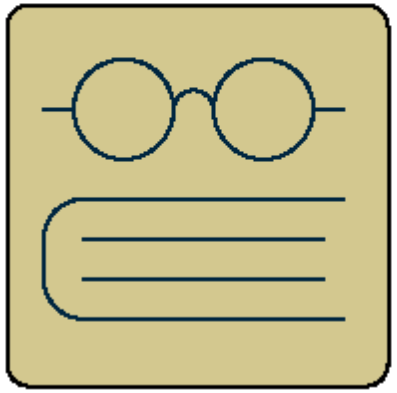
Tip: We recommend using a reference management software like Zotero so that formatting can be easily changed. Check out our website and trainings for more info on literature management software.

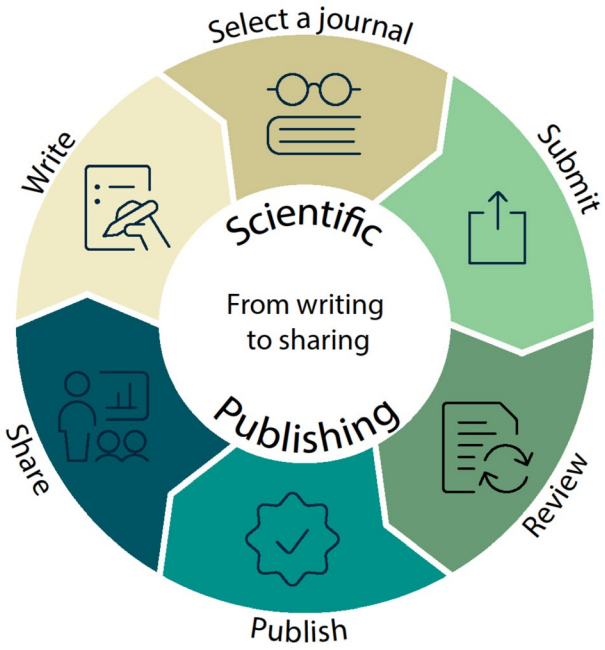
Supplement

- Generally there is no limit on how large the supplement can be
- All supplementary material must be referred to in the text
- Where all the details that are not needed to understand your work but are necessary for reproducibility can go
  - Can include:
    - Materials and methods (if more detail is needed then in your methods)
    - Data sets
    - Tables
    - Code
    - More detailed discussion (prohibited in some journals…)
    - Extra figures
    - Equations
    - Multimedia files

Tip: Good data managment is the key to reproducibility. Start good practices early! Need help managing your data, check out our website/training series on research data management.

Select a journal





Picking the correct journal, what should you consider?

Menti.com w/ code 6886 0771

Picking the correct journal, what should you consider?

- Topic/relevance
- Target audience
- Funding requirements
- Open Access?
- Funding requirements
- PI and co-author suggestions
- Length requirements

- Don’t know where to start?
  - What journals have you been using?
  - What do co-authors recommend?

Tip: Still don’t know which journal to pick? Consider checking out Bison: https://service.tib.eu/bison/

The Dark Side: Paper mills and predatory journals

- Use common sense
- Beall's List – of Potential Predatory Journals and Publishers
  - Included MDPI and Frontier journals
  - Famous, but criteria are criticized for being vague and subjective
- MDPI Journals: 2015 -2021 | Dan Brockington
- The SNSF is no longer funding Open Access articles in special issues

Elsevier classifies itself as a “data analytics” company and Nature is publicly traded on the stock exchange

- “Personally, I think that more harm is done if a researchers pays 9500 Euro for making an article in a Nature journal Open Access than publishing a sound paper in a journal with a sub-optimal peer review.” --- Dr. Jochen Bihn, Lib4RI

Article types

- Content
- Length
- Audience

Original research & findings:

- Articles
- Communications

Review:

- Reviews

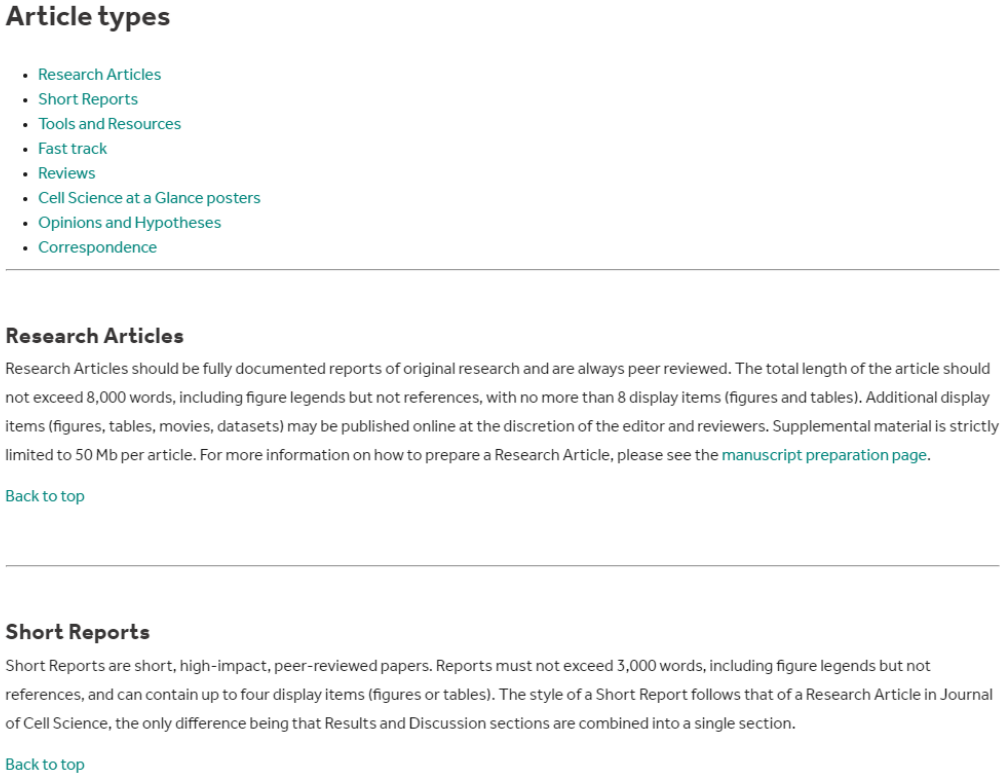
Opinions:

- Perspectives
- Comments
- Letter to the editor

Your content determines the article type, not the other way around.

Exercise

- Check your prefered journal for available article types and for the conditions that apply.



Article types

- Research Articles
- Short Reports
- Tools and Resources
- Fast track
- Reviews
- Cell Science at a Glance posters
- Opinions and Hypotheses
- Correspondence

Research Articles

Research Articles should be fully documented reports of original research and are always peer reviewed. The total length of the article should not exceed 8,000 words, including figure legends but not references, with no more than 8 display items (figures and tables). Additional display items (figures, tables, movies, datasets) may be published online at the discretion of the editor and reviewers. Supplemental material is strictly limited to 50 Mb per article. For more information on how to prepare a Research Article, please see the manuscript preparation page.

Back to top

Short Reports

Short Reports are short, high-impact, peer-reviewed papers. Reports must not exceed 3,000 words, including figure legends but not references, and can contain up to four display items (figures or tables). The style of a Short Report follows that of a Research Article in Journal of Cell Science, the only difference being that Results and Discussion sections are combined into a single section.

Back to top

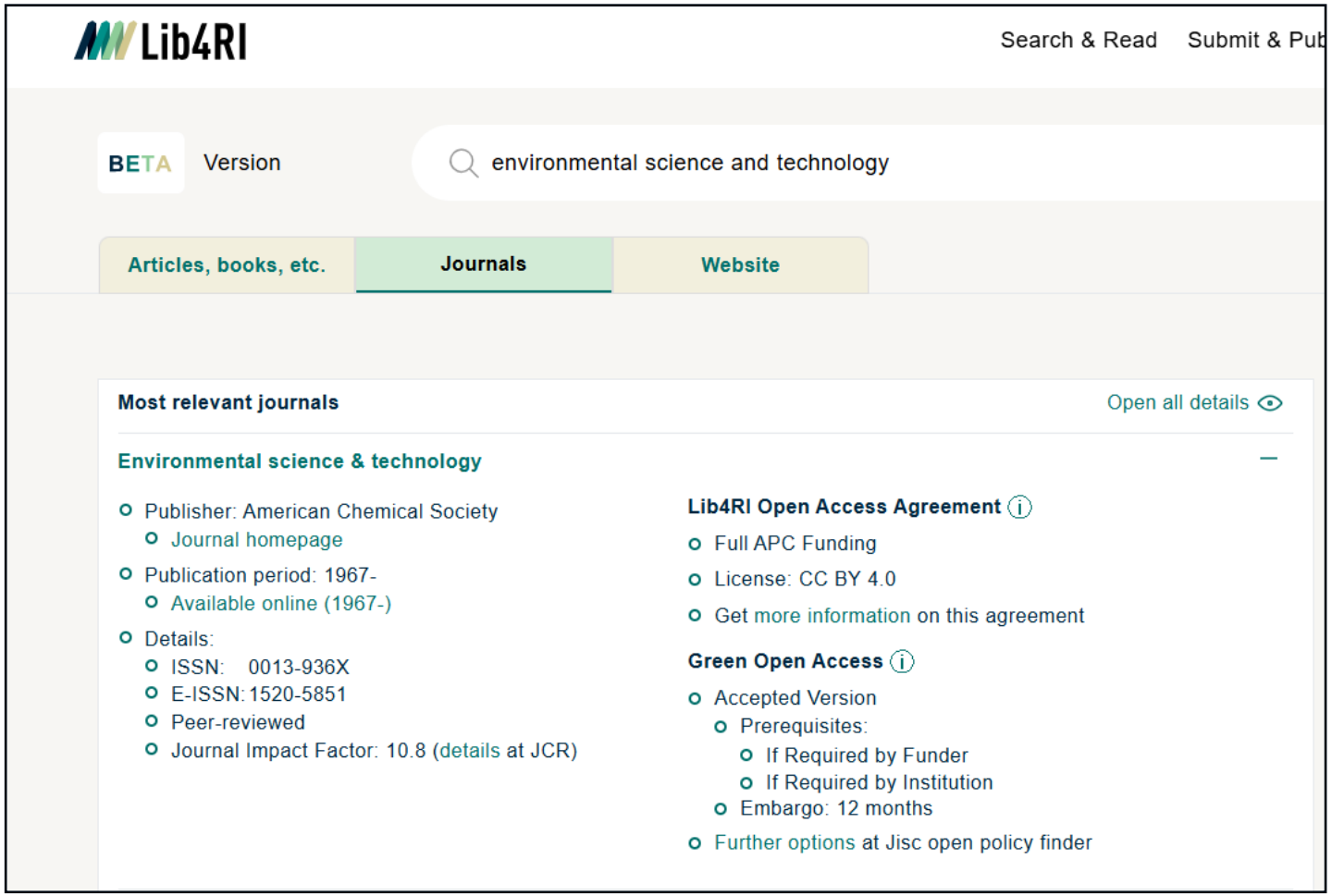
https://journals.biologists.com/jcs/pages/article-types , 05.05.2025

Have a journal in mind?

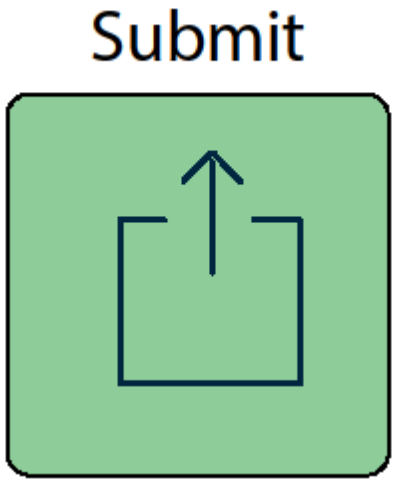
- Check out if the library has agreements or can support publishing open access in that journal using the library search tool.

Tip: Make journals' OA policies part of your decision where to publish. It can save you thousands of CHF!

Questions:
- openaccess@lib4ri.ch
- https://www.lib4ri.ch/open-access

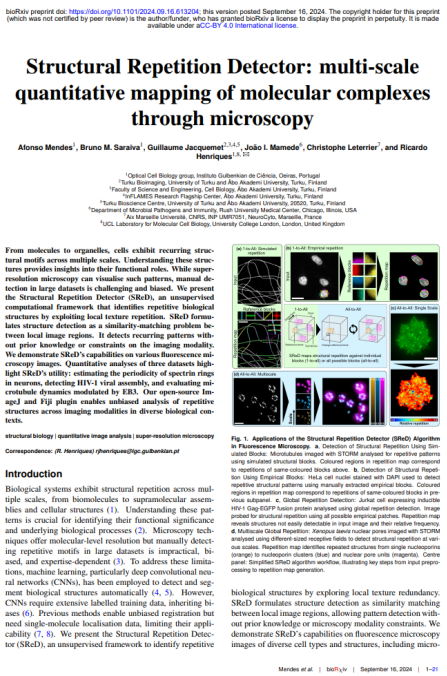



Select a journal
Submit
Review
Publish
Share
Write
Scientific
Publishing
From writing
to sharing


Submit

Format your submission – General considerations

- Preference for a format can depend on whether people read the article printed or on an electronic device



Structural Repetition Detector: multi-scale quantitative mapping of molecular complexes through microscopy

Alonso Mendes[1], Bruno M. Saraiva[1], Guillaume Jacquemet[2,3,4,5], João I. Mamede[6], Christophe Leterrier[7], and Ricardo Henriques[1,8,9]

Mendes et al., biorxiv.org, 2024, doi: 10.1101/2024.09.16.613204

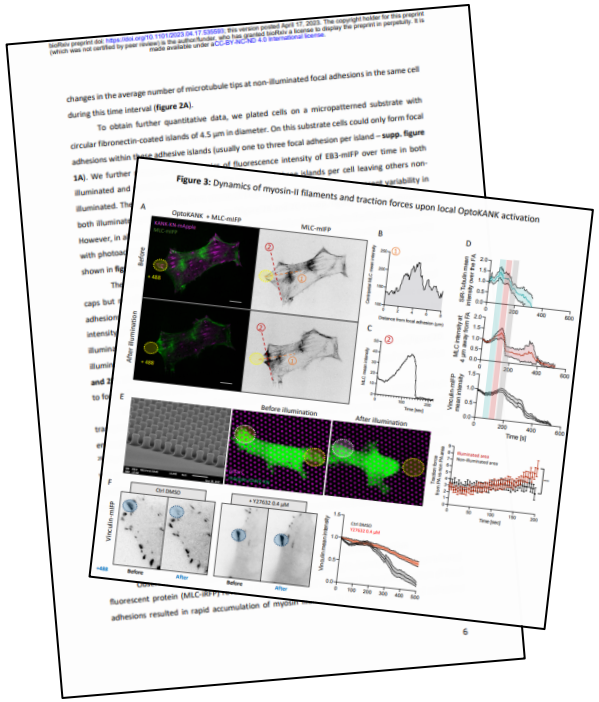


Figure 3: Dynamics of myosin-II filaments and traction forces upon local OptoKANK activation

Aureille et al., biorxiv.org, 2023, doi: 10.1101/2023.04.17.535593

Journal-like style vs. free style

Some journals allow that your first submission is formatted according to your own preferences, others have guidelines. Check the journals author portal/for authors section.

Make your life easier

Stay somewhat close to journal guidelines to avoid heavy reformatting later on

Use line numbers

Make your reviewers lives (and thus yours) easier by having the line numbers to refer to. Pick the line spacing that is easy for you to read (unless the journal specifies)

Tip: Programs like LaTeX can make changing formatting easy. Check out our training on 'Getting started with LaTeX'

The actual submission process

- Expect a lengthy process.
- The information you need during the submission process is more important than you think:
  - Authors' names, affiliations, address and ORICD (as they prefer)
  - Funding information
  - Acknowledgements
  - ...

Get familiar with the submission platform

Make yourself familiar with the requirements of the platform and the kind of information you will need.

Gather all necessary information before the actual submission

Some information will need time to acquire → plan ahead.

Tip: Your ORCID credentials work as login for many journals. Another good reason to have an ORCID account!

Cover Letter

- Relevance and content of cover letters are very field and journal dependent.
  - Discuss with experienced coauthors – ask for examples
  - Check the author's guide on the journal's webpage
  - Ask the journal / editor
  - Out-of-the-ordinary circumstances of your submission (prior discussion with editors, transferred peer review files, transfer from another journal, resubmission, …)
- In some fields the cover letter is incredibly important and must be thoughtfully written, in others it is less important

The cover letter can be an elevator pitch to the editor
Why suited for the journal and its audience?

Suggesting and excluding reviewers
Some journals allow, or even require, this. Exclusions will be considered if you have good reasons.


Review


Select a journal
Submit
Review
Publish
Share
Write
Scientific
From writing
to sharing
Publishing

Receiving Reviews on your submitted paper

- Feedback from your “homework”:
  - First impressions? What surprised you?
  - How are reviews organized?

Tip: Tight deadline? Extensive revisions? Email the editor to see if you can get an extension. Best done well before the deadline – and not guaranteed.

Typical structure of a review

Title and authors

Summary
The reviewer’s summary of the manuscripts findings/contributions to the field with their comments on whether the manuscript’s findings are interesting, well supported, and/or novel. (~1 paragraph)

Major Revisions
The larger issues that the reviewer feels are very important for the author to address. What big picture things need to be clarified, expanded upon, tested, etc..

Minor Revisions
The smaller issues the author should address. Smaller points that need clarification, small figure adjustments, spelling mistakes or rephrasing of sentences that don’t make sense.

Recommendation
Where the reviewer tells the editor if the paper should be rejected, accepted with major or minor revisions or accepted without revision (not sure this ever happens)

Confidential comments
Section to raise concerns about ethics or other topics the reviewer does not wish the authors to see.

Receiving Reviews on your submitted paper

Peer review mostly improves your publication.
Ideally, your peers invested time and effort to improve your submission. Try to understand their reasoning and follow their suggestions when possible.

Don’t take the reviews personally.
A lot of revisions does not mean a bad paper.

Work on reviewer comments with experienced colleagues
Experience can help when finding the appropriate response to reviewer comments

Not every recommendation needs to be followed
You can refuse to implement certain reviewer comments if you provide good reasons.

Tip: A reviewer’s comment doesn’t make sense because they didn’t understand you correctly?
→ Don’t explain it another time in your answer to them! Instead, find the source of confusion and change it

Being a reviewer yourself

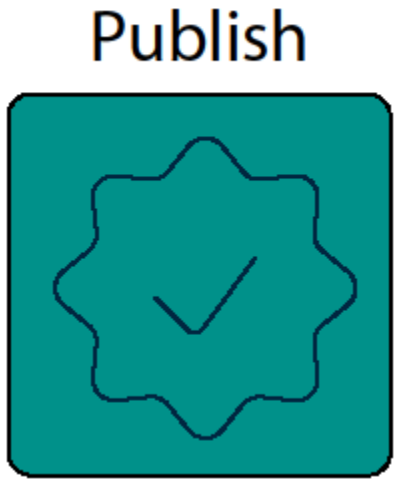
- Being a reviewer can be a valuable experience but it is also time consuming.
- Typical possibilities to get involved:
  - Senior researchers often involve junior researchers when they review.
  - Platforms like pubpeer.com encourage the reviewing of preprints and are open to anyone.

Resources on how to be a good reviewer:

Step by Step Guide to Reviewing a Manuscript | Wiley

How to write a peer review | PLOS

Reviewer Guidelines | Research Involvement and Engagement


Publish


Select a journal
Submit
Review
Publish
Share
Write
Scientific
From writing
to sharing
Publishing

Editorial proofs

- Last chance for making easy changes.
  - Ensure author information is correct and up to date.
  - Double check everything.
- Tight deadline? Ask for extension.
- Then celebrate!

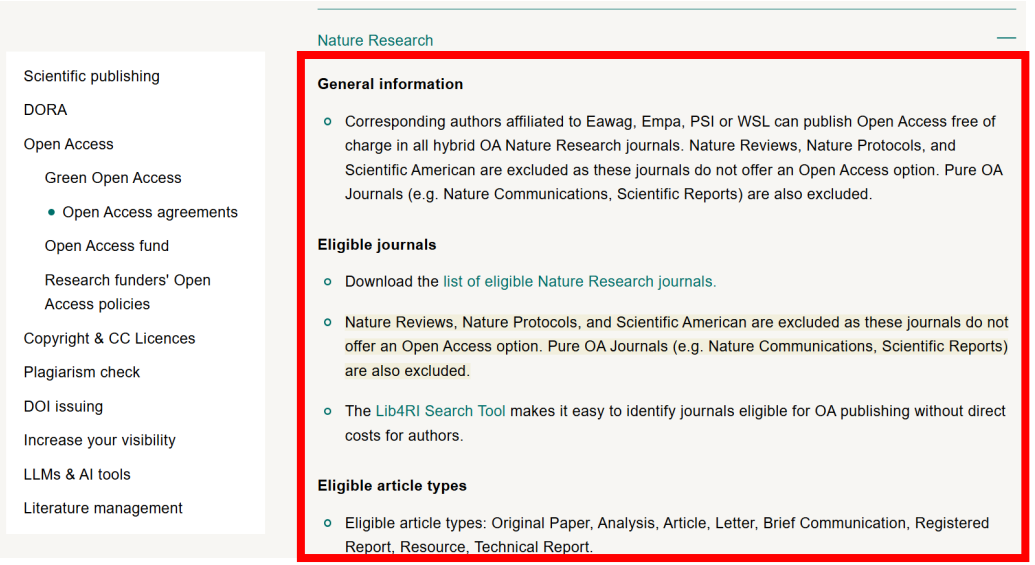
Editorial proofs

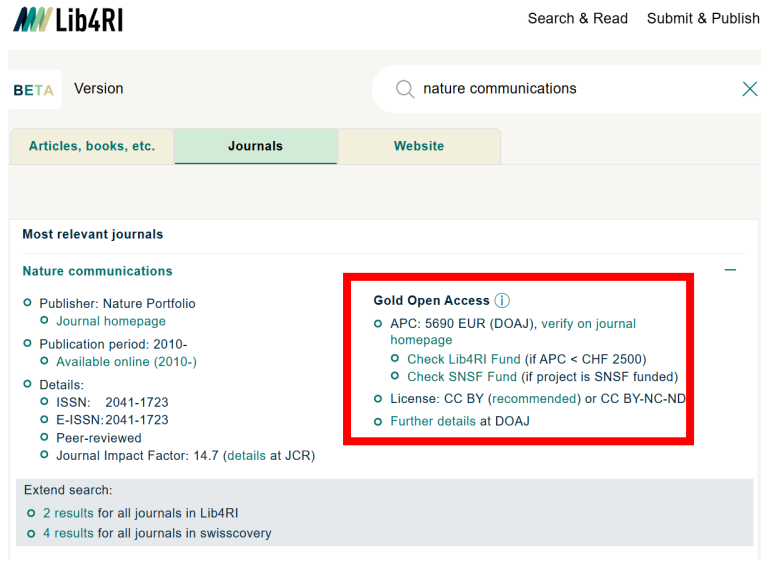
Take your time and be thorough. Corrections after this stage are much more difficult.

Acceptance, OA, copyrights, payments

OA, copyright, payments
Make sure that you informed yourself about these aspects **before** you submitted!

Lib4RI search tool
Provides up to date information on the RI's OA agreements with journals





Tip: Still need help, email us at openaccess@lib4ri.ch

Tip: Make journals' OA policies part of your decision where to publish. It can save you thousands of CHF!

Creative Common (CC) licenses and why they matter

- Traditional publishing: Copyright transferred to the publisher
  - You need to pay to read your own article…
- CC licenses:

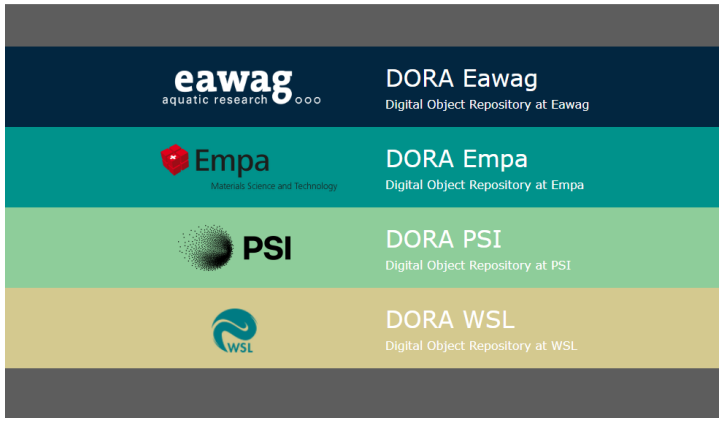
	BY	Attribution	give attribution to the author and link to the licence	mandatory
	SA	ShareAlike	derivative works need to be made available under same licence	optional
	NC	NonCommercial	re-use is only permitted for non-commercial purposes	optional
	ND	NoDerivatives	the work must not be modified	optional

- **CC BY highly recommended for publishing your articles**

Tip: Need help making a decision, Creative Commons has a License Chooser that recommends licenses.

Digital Object Repository At the 4RIs (DORA 4RI)

Lib4RI DORA 4RI



DORA is getting a revamp this year! Stay tuned for the new and improved DORA.

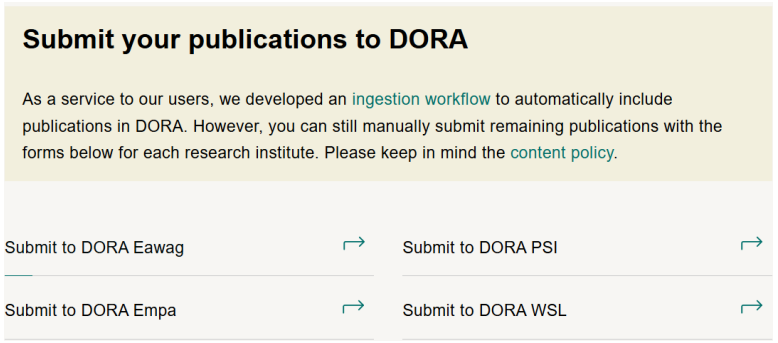
DORA

DORA is the institutional repository for all 4 RIs. DORA stores almost all publications of 4RI researchers.

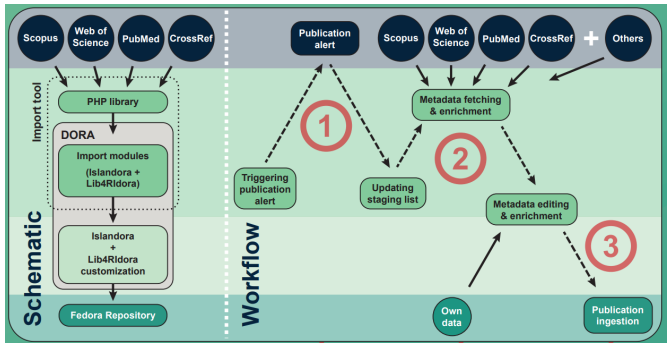
Services @ DORA

- DORA reminds and informs you about ways to make your publication Open Access (OA)
- DORA makes your OA publications available to the public (and non-OA publications available to 4RI members)

Manual ingestion: https://www.lib4ri.ch/dora



Automatic ingestion:



Tip: You want to list your publications on your institutional website? https://www.lib4ri.ch/integrating-publication-lists-your-webpage (only DORA-listed publications, though)


Select a journal
Submit
Review
Publish
Share
Write
Scientific
Publishing
From writing
to sharing

Share

After publishing your research you discuss it with like minded philosophers in your town's agora.

And you might use some 21st century methods to distribute your findings.

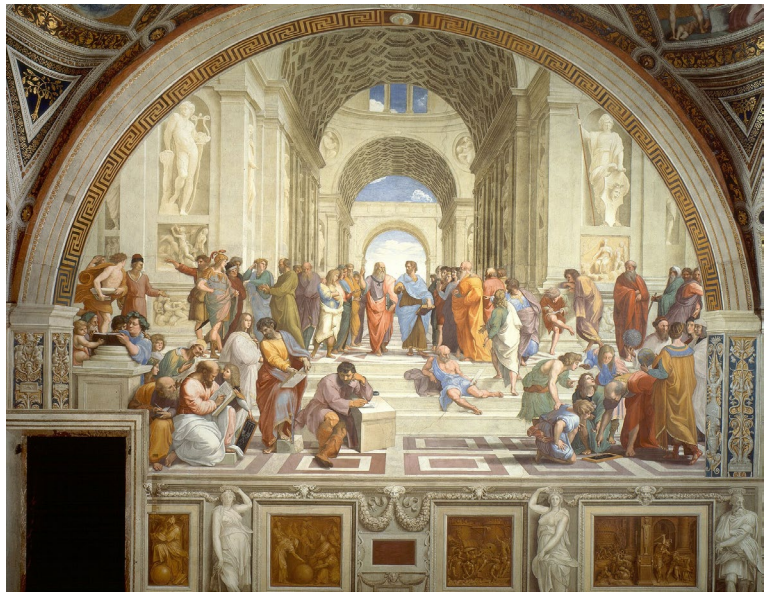
Raphael, The School of Athens painted 1509-1511

Sharing your research among scientists

- Why would you share your research?
- Have already done it? What was your experience?
- Impact: What makes a finding impactful? What makes a finding a topic in coffee breaks at work? Or in a coffee break with non-scientist friends?
- Increased visibility in academic circles (e.g., number of citations) “spills over” into non-academic circles (e.g., blogs, science communicators, …)

Sharing within academic circles remains relevant

Besides publishing your paper, this includes:
- presenting at scientific conferences
- writing a review paper, linking your findings to existing literature
- sharing via social media among collaborators and colleagues



Raphael, The School of Athens painted 1509-1511

Narrative style CVs – the new SNSF CV

- Your curriculum vitae – all about the CV format
- SNSF introduced a new CV format in 2022 that you need to use when you apply for SNSF funding.
- More emphasis on achievements beyond publications and citation numbers.

- Net academic age: "This time span between your graduation and the submission of the funding application is your net academic age, calculated in full-time equivalents (FTE)."
  - Net academic age relates to your assessment compared to others. Eligibility for a grant can be measured differently!!!

The new SNSF CV

1. Education and training
2. Previous and current employment
3. Major achievements with selected works
4. Net academic age
5. ORCID ID number

Major achievements with selected works

"Describe in your own words 1-3 of your major achievements with selected works across your whole career.

…

Give a **maximum of ten work samples as reference**, distributed across the achievements in any way. **All types of work are eligible** – for example articles in scientific journals, chapters of books, conference papers, data sets, etc."

Sharing your research with the public

- Communicating your science with the public is time consuming and difficult…
- … but it is part of the job for scientists that are paid with taxpayers' money.
- For the public, the number of voices can be relevant for judging "correctness".
  - 99% of climate scientists agree on climate change.
  - But if you only hear from 1% of them, it might appear 50:50

Science communication can be done on all levels.
Write Wikipedia articles, share layman descriptions on insta etc., Pint of Science and other events, …

Doing science communication practices many transferable skills.
Adjusting complexity, seeing other viewpoints, "normal" writing, presentation skills, …

Publish or perish? Or: When are you successful as a scientist?

- Publishing many bad articles should not be the goal
- (high) impact factor
  - It is a journal based metric that does not reflect the quality of your publication
- Establish your personal brand
  - Consistently publish articles in good quality about a core topic and become the recognized expert for this topic

Unique identifiers – formal aspects of sharing

- Maybe 20 million scientists in the world, publishing around 3 million articles per year.
- How to find you and your work?

ORCID: Open Researcher and Contributor ID
Serves also as login credential for many journals, often listed next to your name on publications, stays with you when leaving institutes.
ORCID profile includes your employment history, funding sources, awards, publications. Can serve as an online CV.

Google Scholar
Another way to list your publications. Also includes citations, personal citation metrics (H-index). Includes publications and citations that are not listed by other sources (e.g. Scopus, Web of Science).

ResearcherID by Web of Science

ScopusID by Scopus

Tip: Preference for different identifiers can be field specific → discuss with your colleagues.

Copyright, DOI, open access– formal aspects of sharing

- Maybe 20 million scientists in the world, publishing around 3 million articles per year.
- How to find you and your work?

DOI: Digital Object Identifier

DOIs are persistent, unique, and associate metdata with objects (including papers, datasets, etc.).

Open Access and CC license

Open Access to your article, published under a creative commons license, ensures that your article easily reaches everyone who wants to read it.

Tip: Need a DOI for your work? The library can issue one: check our website.

Preprints – Sharing your research faster

- What is a preprint?
  - A manuscript that has not undergone peer review and is without any formatting by a journal.

    → Basically your submitted version of a “normal” research paper
- What is the advantage of publishing a preprint?
  - Fast (no waiting for editors and peer reviewers), also means priority / less risk of being scooped
  - Cheap way to publish your results open access and to share it with everyone
  - Flexible with style, format, content, …
- What is a risk?
  - Make sure that “real” publishing is still possible and that your journal / publisher of choice is ok with a prior publication of your results as a preprint: List of academic publishers by preprint policy - Wikipedia
- Examples of preprint servers: arxiv.org, biorxiv.org, medrxiv.org, zenodo.org, …

Patents

- Patenting can provide you with new opportunities to turn your discovery into a product that benefits not only you but also society at large.
- Interested? Discuss this opportunity early with your technology transfer office. They offer advice, specialized courses, and everything you need to navigate intellectual property and patenting.
- You cannot patent anything that you have already published.
  - This includes preprints, “normal” publications, website content, social media posts, blogs, podcasts, …
  - If you organize it well and in advance, patenting won’t prevent or even delay you from publishing.

Tip: You’re a member of LS2 (Life Sciences Switzerland)? → Program - Patenting in Life Sciences & Chemistry 2025 - meetings.ls2.ch

Resources on patenting:

EAWAG and EMPA:
Empa - Knowledge and Technology Transfer / Legal – Research

PSI:
Industry Collaboration at PSI: Your Partner for Innovation | Industry | PSI

WSL:
Katharina Eggenberger

Swiss Institute of Intellectual Property: Home - Swiss Federal Institute of Intellectual Property

Patents | Lib4RI

AI / LLM Tools

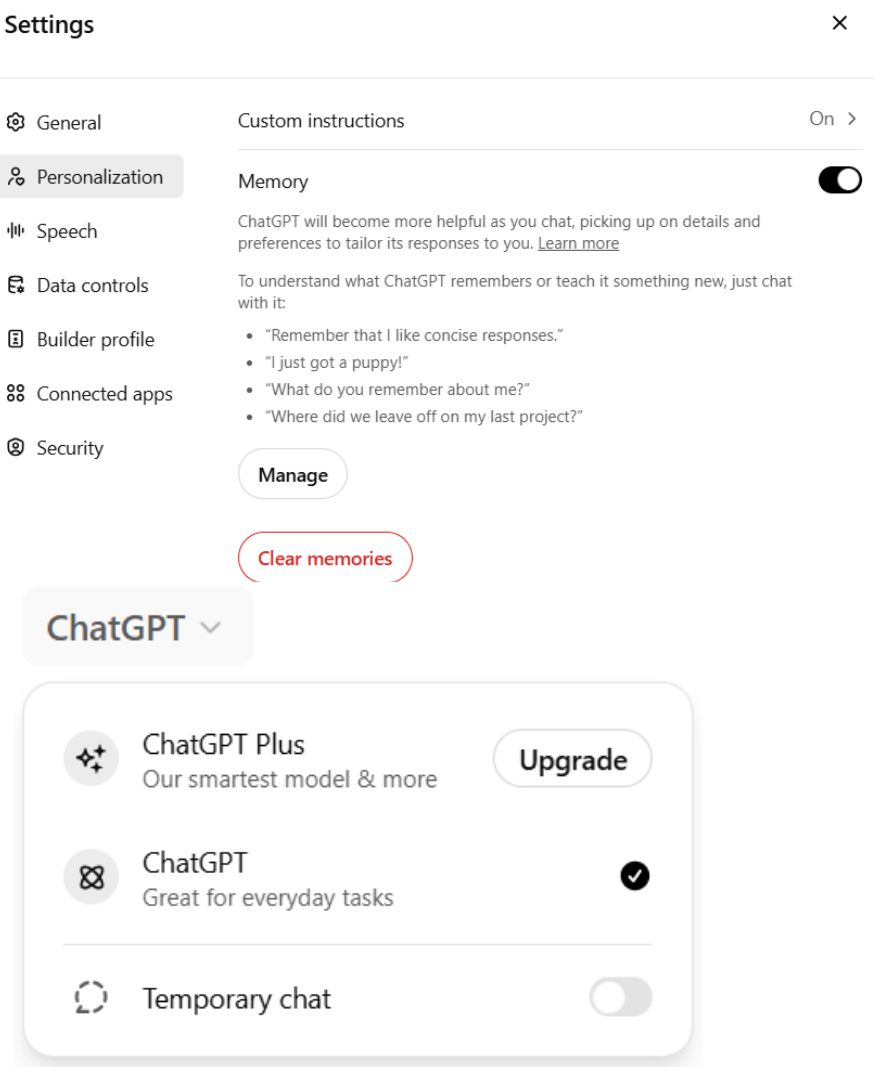
- Lib4RI page: LLMs & AI tools | Lib4RI
- You need to check the rules of your respective journal.

Can I use you to edit and optimize a scientific journal article I am preparing? It is important that the data stays confidential. How do you achieve this in this context?

Yes, I can definitely help you edit and optimize your scientific journal article. Regarding confidentiality:

1. **No Data Storage** – I do not retain or store any documents or information after our session ends. Once you close the conversation, all content is lost on my side.
2. **No External Sharing** – I do not send data to external servers or third parties.
3. **Local-Only Editing** – You can paste text here for edits, or I can help you refine sections separately if full-document sharing is a concern.
4. **Sensitive Data Handling** – If your article contains confidential data, you may replace specific numbers or sensitive names with placeholders (e.g., "XX mg/ml" or "Company Y") while we refine the structure, clarity, and flow.

ChatGPT, 30/01/2025



What is your current understanding of the scientific publishing process:

Menti.com w/ code 6886 0771

Again, this is to help us continue to improve this course in the future

Thank your for your attention.

Dr. Michael Bachmann

Group Leader Publication Services
Phone: +41 (0)58 765 56 08
michael.bachmann@lib4ri.ch

Dr. El Knappe

Project Manager
Phone: +41 (0)58 765 51 56
ellen.knappe@lib4ri.ch

Lib4RI – Excellent Services for Excellent Research.

www.lib4ri.ch
info@lib4ri.ch
T: + 41 58 765 57 00

LIB4RI – Excellent Services for Exellent Research.

Lib4RI
Eawag-Empa
Überlandstrasse 133
8600 Dübendorf, Switzerland

Dr. Lothar Nunnenmacher
Head of Lib4RI

T: + 41 58 765 52 21
F: + 41 58 765 50 28
lothar.nunnenmacher@lib4ri.ch

www.lib4ri.ch
info@lib4ri.ch
T: + 41 58 765 57 00