Publish or Reboot

From Research to Publication

SpaRTaN - MacSeNet
ITN Workshop
18.11.2016
Publish or Reboot

PROGRAM

Submit your article / abstract

Understand the peer review process

Negotiate your contract

Disseminate your article
Submit

✔ Set your publication context: why, what and when you should publish

✔ Learn how to select the appropriate journal or conference

✔ Discover the key points for abstracts & cover letters
Why should you publish?
What could you publish?
beside a traditional article

- Single observation
- Notebook
- Video abstract/journal
- Code
- Data paper
When should you publish?

Too early ➞ premature publication
Too late ➞ beware of competitors

Our pieces of advice

- Complete 70% of your research before publishing
- Publish a short communication to mark your research territory
- Check conferences agenda
- Present something new
- Be strategic
- Do not publish anything if you plan to patent
- Do not split your research into too many publications to avoid «salami science»
- Do not forget proofreading
Where should you publish?

Journal typology

MULTIDISCIPLINARY
- Proceedings of the IEEE
- Science

DISCIPLINARY
GENERAL INTEREST
- IEEE Computational Intelligence Magazine
- Communications of the ACM

SPECIALIZED
- IEEE Transactions on...
- Journal of Cheminformatics

DATA JOURNAL
- Scientific Data
- Data in Brief

MEGAJOURNALS
- IEEE Access
- Scientific Reports
Conference

ACM Symposium on Theory of Computing (STOC)

IEEE Symposium on Foundations of Computer Science (FOCS)

Innovations in Theoretical Computer Science (ITCS)

Conference on Learning Theory (COLT)

International Cryptology Conference (CRYPTO)

Conference on Computer Graphics and Interactive Techniques (SIGGRAPH)
What is Open Access?

“Open Access (OA) literature is digital, online, **free of charge**, and free of most copyright and licensing restrictions.”

(Peter Suber, 2012)
Two roads to Open Access

Green Open Access (Self-archiving)

- Self-archiving by the author of a reviewed version of a paper in an online repository (disciplinary or institutional).
- Access often delayed (embargo period).
- Reuse subject to restrictions (publisher’s copyright).
- Free for both readers and authors.

Gold Open Access

- Final version immediately and freely accessible through the journal’s platform.
- Publication costs (Article Processing Charge - APC) paid by authors, institutions, or funders.
- Copyright retains by authors (most often CC-BY license).
Publishing business models

**SUBSCRIPTION-BASED JOURNAL = “TRADITIONAL JOURNAL”**

Paying for readers
- individual or institutional subscription (often through libraries)
- pay-per-view

Free for authors (except for additional charges: color charge, length, etc.)

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**DELAYED OPEN ACCESS (OA)**

Subscription-based journals providing a free online access after a period of embargo (6 to 24 months)

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**HYBRID OPEN ACCESS (OA)**

Subscription-based journals providing a Gold OA option (payment of an APC) allowing immediate and free access for readers

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**GOLD OPEN ACCESS (OA)**

Free of charge for readers and paying for authors
- Article Processing Charge (APC)

OR

Free of charge for both readers and authors
- Sponsor model (institution, learned society, research organisation, association, funder)
- Other (paper edition, etc.)
Publishing business
$10 billion p.a*

Subscriptions paid by institutions for their readers

APCs for a Gold or Hybrid OA
$1000 - $5000

* 2015 > New York Times, 2016.03.12
Publishing business overuse

Publication Support Services

- **Reviewers recommendation**
  - $300

- **Responses to reviewers’ comments**
  - $ on demand

- **Cover letter writing**
  - $50 - $80

- **Journal selection**
  - $300

- **Proofreading**
  - $120 - $200

- **Pre-submission - peer-review**
  - $400

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**CAUTION**

**BEWARE OF PREDATORY JOURNALS**

- **Editorial Board Members**
- **Indexing by recognized bibliographic databases**
- **Peer-review process clearly described**
- **Read some published articles to evaluate the quality**
- **Ask your colleagues and the library**

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CASPA: Open Access Scholarly Publishers Association

DOAJ: DIRECTORY OF OPEN ACCESS JOURNALS

13
Who pays and where goes the money in publishing models?

<table>
<thead>
<tr>
<th></th>
<th>Traditional Journals</th>
<th>Green OA</th>
<th>Delayed OA journals</th>
<th>Gold OA journals with APC</th>
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<th>Hybrid OA journals</th>
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<td><strong>Public stakeholders</strong></td>
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<td><strong>Libraries</strong> (as subscribers)</td>
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<td><strong>Publishers</strong></td>
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<td>as subscribers</td>
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<td><img src="image29.png" alt="Image" /></td>
<td><img src="image30.png" alt="Image" /></td>
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</tbody>
</table>

Effect
Which criteria to select a journal?
Journals & Conferences Selection Tools

**Computer Science Conference Search**

- Scimago Journal & Country Rank

**IEEE Conference Calendar**

**Computer Science Conference Rankings**

![Cofactor](image)

![edanz](image)

**ELSEVIER**

Find the perfect journal for your article

**IEEE Publication Recommender™**

- **IEEE Conference Calendar**

**Computer Science Conference Rank**

![Think Check Submit](image)

Choose the right journal for your research

![Springer](image)

**Publish in Springer Journals**

When you publish in Springer journals, you get:

- Rapid online publication—often within days of acceptance.
- Free e-offprints
- Full range of Open Access options—SpringerOpen and OpenChoice
Ready to submit?
Principal Reasons for Rejection

(Self-)Plagiarism

- Lack of novelty
- Limited impact and urgency
- “Salami” Science
- Premature publication
- Inappropriate scope and audience

- Lack of interpretations
- Flaws in methodology
- Conclusion not supported by the data

- Code/Research data not available
- Inadequate literature citation
- Incorrect formatting
Cover letter & Abstract

Convince editors, reviewers, and conference organizers

- Why the paper/talk is important for the field and the community
- Originality & Impact of your research

- Appealing title
- Catchy keywords
- Format your Article / Abstract with respect of guidelines

Remember that you only have one shot! Get it right!
Avoid...

- Typo and spelling errors
- Wrong conference’s name or journal’s title
- Acronym and too technical terminology
- Over-interpretation of findings
- Opinion about other groups and studies
- Complaint about previous rejections
Peer-review process

✓ Get an overall view of the traditional peer review process and its alternatives
Definition and expectations

• Process by which research output is subjected to scrutiny and critical assessment by experts (accuracy and quality of works).

• Prevent the publication of bad work and check that the research reported has been carried out well.

• Ensure that the work is reported correctly and unambiguously.

• Ensure that the results have been interpreted correctly and are not too preliminary/speculative.

• Provide authors with feedback, improve quality/readability of articles.

• Help maintain the integrity of the scholarly record.
From preprint to final version

**PREPRINT**
- Your manuscript... once **submitted**

**POSTPRINT**
- Your preprint... once **reviewed**

**FINAL VERSION**
- Your postprint... once **laid out**

Your content

Your content + **additional content based on the reviewers’ comments**

Your content reviewed + **laid out by the publisher**
Traditional peer reviewing

**SINGLE BLIND**
- Authors ignore reviewers’ name
- Reviewers know authors’ identity
- Editor knows authors’ identity

**DOUBLE BLIND**
- Authors ignore reviewers’ name
- Reviewers don’t know authors’ identity
- Editor knows authors’ name

**TRIPLE BLIND**
- Authors don’t know who reviewers are
- Reviewers don’t know who authors are
- Editor doesn’t know who authors are
Open Peer-Review (different degrees of openness)

• All players (author, reviewer, editor) know each others.
• Articles available for comments (community/public) before, during or after the ‘regular’ review process.
• Reviewers’ reports (with/without reviewers ID) are disclosed along with the article.
• Editorial correspondance and/or all versions of the manuscript are available online.
• Post-publication peer review (repository type journals).

Examples:

✓ BMC Pharmacology and Toxicology
✓ F1000 Research
✓ F1000 Prime
The peer review process

START

STEP 1

STEP 2

STEP 3

STEP 4

STEP 5

STEP 6

STEP 7

STEP 8

STEP 9

STEP 10

STEP 11

STEP 12

DEAD END

HAPPY END
The peer review process

START

1. Author
   - Submits the manuscript (MS abbrev.)

2A. Editor
   - Sends out the MS for review

2B. Editor
   - Reverts without review

3. Reviewer
   - Reads the MS + writes review report

4. Editor
   - Assesses reviews

5A. Author
   - Sends the revised MS
   - Sends reviews + asks for additional revisions

5B. Reviewer
   - Sends reviews + rejects or encourages resubmission

5C. Editor
   - Sends reviews + accepts the paper for publication

6. Author
   - Sends the revised MS

7. Editor
   - Assesses reviews

8. Editor
   - Sends the revised MS + writes review report

9. Editor
   - Assesses reviews

10 A. Editor
   - Sends reviews + rejects the revised MS

10 B. Author
   - Sends the revised MS

10 C. Editor
   - Sends reviews + accepts the paper for publication

11. Journal production DPT
   - Prepares proofs for authors

12. Journal production DPT
   - Publishes the final version

HAPPY END
Negotiating your contract

✓ Discover tools to negotiate an editorial contract.
Editorial contract

✓ **THINK** about the needs you and your readers will have in the future (re-use). What are the most important ones?

✓ **UNDERSTAND** the contract.

✓ **NEGOTIATE** to avoid a total transfer of your rights (non-exclusive license).

→ [Addendum](#) by SPARC & ARL
→ [CC licenses](#): related to the [publisher](#) or to the [author](#)
→ [Software licenses](#)

✓ **KEEP** copies of everything.
Disseminating your article

✓ Understand what bibliometrics really is
✓ Understand what bibliometrics is used for
Find the top journals

Your university asked a committee to select the top journal for some guidelines for researchers. You belong to this committee.

What journals do you choose?
Influence of a journal

Impact Factor (IF) based on Web of Science (Thomson Reuters)

« The Journal Impact Factor is the average number of times articles from the journal published in the past two years have been cited in the JCR year. »

SCImago Journal Rank (SJR) Indicator based on Scopus (Elsevier)

« It expresses the average number of weighted citations received in the selected year by the documents published in the journal in the three previous years. »
Impact Factor

Are you a good researcher if you publish in a top journal?

<table>
<thead>
<tr>
<th>Nature</th>
<th>art. publ.</th>
<th>cited in 2014</th>
</tr>
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<tbody>
<tr>
<td>2013</td>
<td>860</td>
<td>29,753</td>
</tr>
<tr>
<td>2012</td>
<td>869</td>
<td>41,924</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,729</td>
<td>71,677</td>
</tr>
</tbody>
</table>

\[ \text{IF}_{2014} = \frac{71,677}{1,729} = 41.456 \]

The case of **ACTA CRYSTALLOGRAPHICA SECTION A:**
[http://go.epfl.ch/aca-if](http://go.epfl.ch/aca-if) (webpage accessible from EPFL)
Adopt a physicist

You have to choose a researcher for an open position in the Physics section. You have 4 candidates left.

What is your choice?

<table>
<thead>
<tr>
<th>Candidate 1</th>
<th>Candidate 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000-0003-2125-060X</td>
<td>qj74uXkAAAAAJ</td>
</tr>
<tr>
<td>PhD</td>
<td>PhD</td>
</tr>
<tr>
<td>University of Zurich (CH)</td>
<td>University of Cambridge (UK)</td>
</tr>
<tr>
<td># articles</td>
<td># articles</td>
</tr>
<tr>
<td>235</td>
<td>142</td>
</tr>
<tr>
<td># citations</td>
<td># citations</td>
</tr>
<tr>
<td>26,936</td>
<td>25,079</td>
</tr>
<tr>
<td>h-index</td>
<td>h-index</td>
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<tr>
<td>51</td>
<td>67</td>
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</table>

<table>
<thead>
<tr>
<th>Candidate 3</th>
<th>Candidate 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000-0002-9776-6314</td>
<td>B-3133-2013</td>
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<tr>
<td>PhD</td>
<td>PhD</td>
</tr>
<tr>
<td>Université de Grenoble (FR)</td>
<td>California Institute of Technology (US)</td>
</tr>
<tr>
<td># articles</td>
<td># articles</td>
</tr>
<tr>
<td>384</td>
<td>&gt;100</td>
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<tr>
<td># citations</td>
<td># citations</td>
</tr>
<tr>
<td>7,707</td>
<td>16,425</td>
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<tr>
<td>h-index</td>
<td>h-index</td>
</tr>
<tr>
<td>43</td>
<td>54</td>
</tr>
</tbody>
</table>
h-index

The **h-index** (named after Jorge Hirsch) is **based on the database of your choice**.

The $h$ of the $h$-index (named after Jorge Hirsch) means that a researcher has published $h$ articles that have been cited at least $h$ times.

The $h$-index is sometimes used for journals. Can also be used for a lab.
Metrics...

Is a paper good because it was published in a top journal?

Is a paper good because the author is a good researcher?

**JOURNAL-LEVEL METRICS**
- Impact Factor
- SJR Indicator

**ARTICLE-LEVEL METRICS (ALM)**
- altmetrics

**AUTHOR-LEVEL METRICS**
- $h$-index
Unlike other metrics, altmetrics don’t rely on citations only.

Altmetrics take social actions like **views, saves, posts** and **comments** as well as citations into account to measure the influence of an article on the scientific community.

- **views and downloads** on the journal website (or another platform)
- **reference saved** in Mendeley (or another reference manager)
- **posts and comments** on scientific blogs, Twitter, Facebook, Google+, ...
altmetrics

PLoS ONE
DOI: 10.1371/journal.pone.0086668

Nature Physics
DOI: 10.1038/nphys3005
PUBLISH OR REBOOT

Further readings


This bibliography is regularly updated: go.epfl.ch/SmartPublishing
Publish or Reboot by EPFL Library (2016)
available at go.epfl.ch/FR2P

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- Loop by ChangHoon Baek
- Trophy by To Uyen
- Bones by Brian Oppenlander
- Box by Chameleon Design
- Librarian by www.yugudesign.com
- People by Benjamin Harlow
- Chemist by SibCode
- Business group by Delwar Hossain
- Library by Rafael Farias Leão