How to Write Great Papers

From title to references

From submission to acceptance

UNIVERSITÀ DEGLI STUDI DI PALERMO

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Presented by: Anthony Newman, Publisher, Elsevier
Location/Date: University of Palermo, March 2015

Workshop Outline

- **How to get Published**
  - Before you begin writing
  - Select your audience
  - Typical article structure
  - The review and editorial process

- **What not to do... (author responsibilities)**

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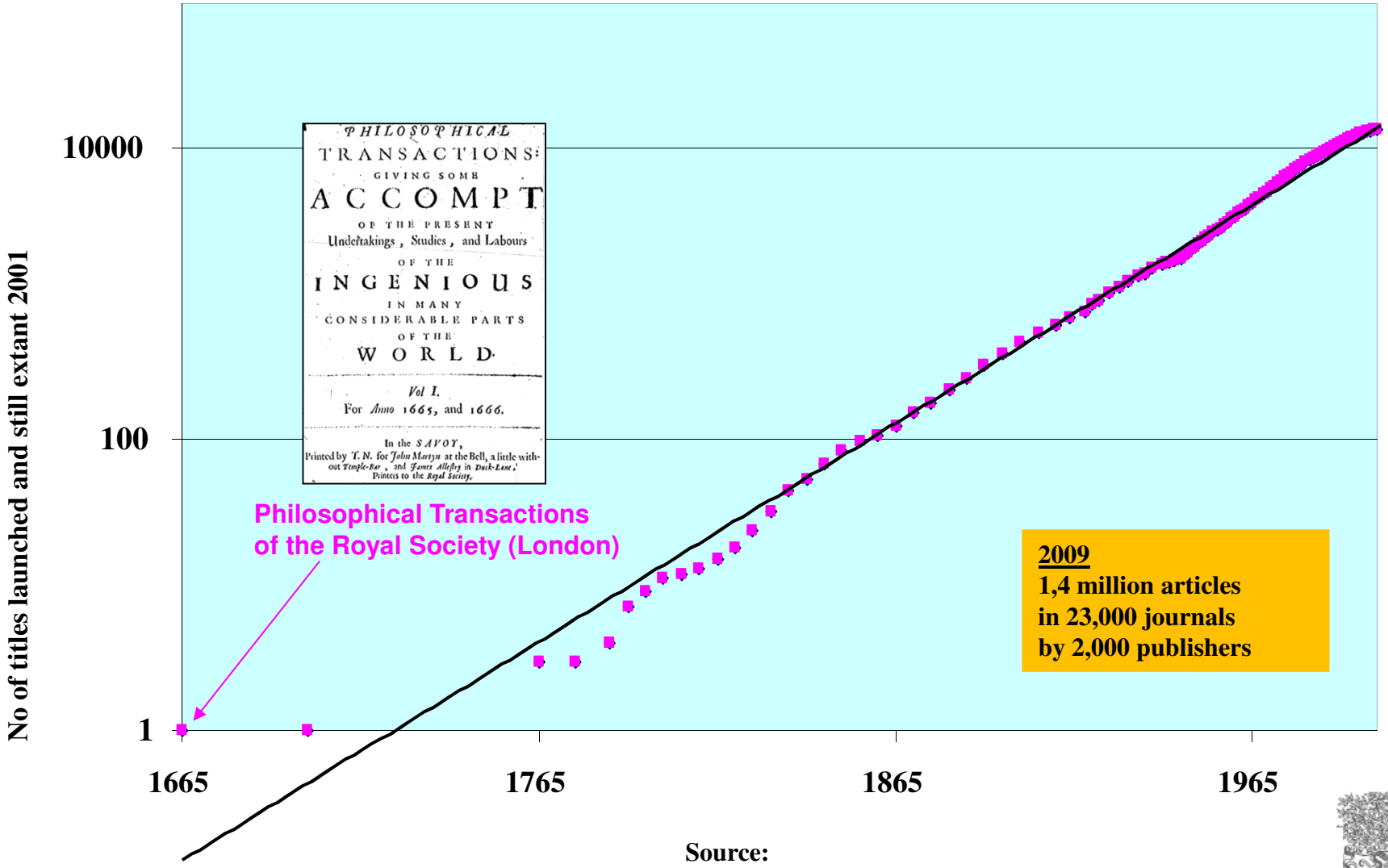
Peer –Reviewed Journal Growth 1665-2002



Source:
M A Mabe The number and growth of journals
***Serials* 16(2).191-7, 2003**

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Elsevier Journal publishing volume

- 1,000 new editors per year
- 20 new journals per year

- Organise editorial boards
- Launch new specialist journals

- ***600,000+ article submissions per year***

Solicit and manage submissions

- 200,000 reviewers
- 1 million reviewer reports per year

Manage peer review

- ***40%-90% of articles rejected***

Edit and prepare

- 7,000 editors
- 70,000 editorial board members
- 6.5 million author/publisher communications /year

Production

- ***280,000 new articles produced per year***
- 190 years of back issues scanned, processed and data-tagged

Publish and disseminate

- ***11 million researchers***
- ***5,000+ institutions***
- ***180+ countries***
- ***400 million+ downloads per year***
- 3 million print pages per year

Archive and promote

- ***11 million articles now available***

Trends in publishing

- **Rapid conversion from "print" to "electronic"**
  - 1997: print only
  - 2009: 55% e-only (mostly e-collections)
25% print only
20% print-plus-electronic
  - 2014: 95+% e-only (in life sciences field over 99%)
  - 2016: ???
- **Changing role of "journals" due to e-access**
- **Increased usage of articles (more downloads)**
  - at lower cost per article
- **Electronic submission**
  - Increased manuscript inflow
- **Experimentation with new publishing models**
  - E.g. "author pays" models, "delayed open access", etc.

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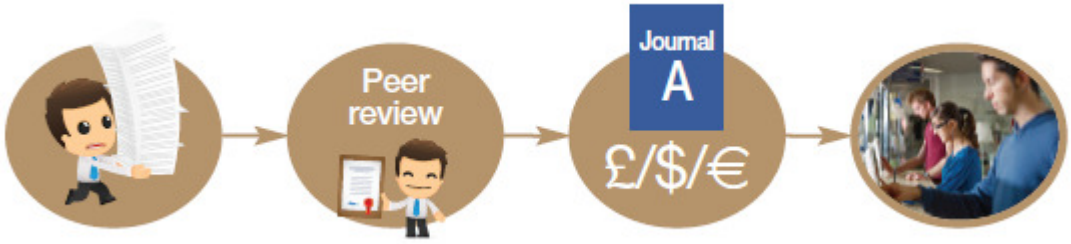
Open Access

Gold Open Access



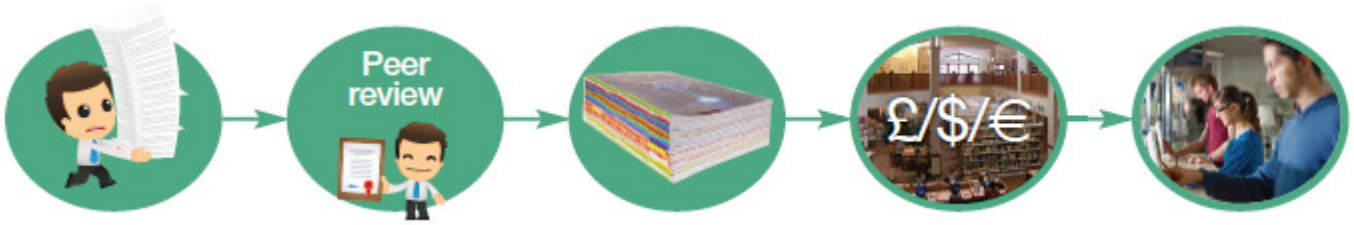
Gold Open Access

- After acceptance, research is made immediately, permanently open access
- Readers can copy and reuse the content as defined by user licenses.
- Costs are covered by a open access publication fee
- Some funding bodies & institutions will reimburse authors for such fees.

Benefits of Gold

- Immediate open access
- You can choose your user license
- Authors retain copyright
- Share the final published article

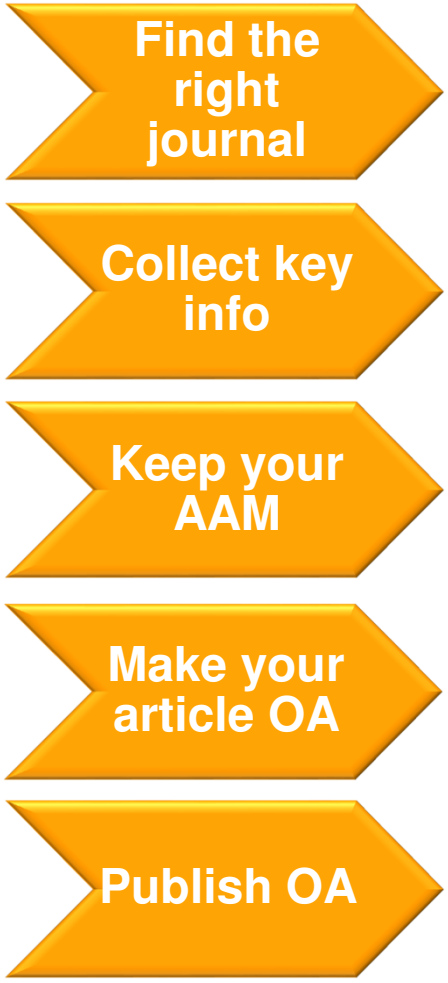
Green Open Access



Green Open Access

- After publication and acceptance in a subscription journal, author publishes in a journal
- The article is immediately available to subscribers
- After a delayed period of time (an embargo) authors can post their manuscript to an institutional repository for public use
- Applies to the accepted author manuscript and preprint versions
- Cost of publication are covered and dependent on the subscription model, so no costs to author.

Tips for publishing Gold Open Access?



Look for reputable journals

Check your funding body and institution's policies – they change

See your journal's posting policy and what you can do with AAM

Select a suitable CC license and pay an OA fee

Share the final version of your article!

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Complying with new polices

Publishing Connect
Partnering with the Global Research Community

Key funder developments:

- **European Commission - Horizon 2020**
  - Every EU country to develop their own policy

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION
HORIZON 2020

- **Research Councils (UK) / Finch Report**

RESEARCH COUNCILS UK

- **CIHR / NSERC (Canada)**

Canada

Draft Tri-Agency Open Access Policy

Natural Sciences and Engineering Research Council of Canada

- **Office of Science and Technology Policy (US)**

Office of Science and Technology Policy

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Your personal reason for publishing

However, editors, reviewers, and the research community don't consider these reasons when assessing your work – the content counts!

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Always keep in mind that …

…. your published papers, as a permanent record of your research, are your passport to your community !

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Why publish?

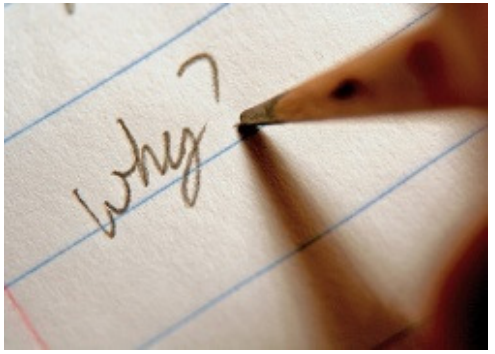
Publishing is one of the necessary steps **embedded in the** scientific **research process**. It is also necessary for graduation and career progression.

What to publish:

- **New and original results or methods**
- **Reviews or summaries of** particular subject
- **Manuscripts that advance** the **knowledge** and understanding in a certain scientific field

What NOT to **publish**:

- Reports of no scientific interest
- Out of date work
- **Duplications** of previously published work
- Incorrect/unacceptable conclusions



You need a STRONG manuscript to present your contributions to the scientific community

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What is a strong manuscript?

- Has a novel, clear, useful, and exciting message
- Presented and constructed in a logical manner
- Reviewers and editors can grasp the scientific significance easily

Editors and reviewers are all busy scientists – make things easy to save their time

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How To Get Your Article Published

Before you start writing

Refine your search strategies

Too many researchers have abandoned all the value of libraries when they stopped going there physically!

There is more than Google

Learn what online resources are available at your institute, and learn to search in a clever way.

Ask your library experts for help.

Haglund and Olson, 2008:

… researchers have difficulties in identifying correct search terms. Searches are often unsuccessful."

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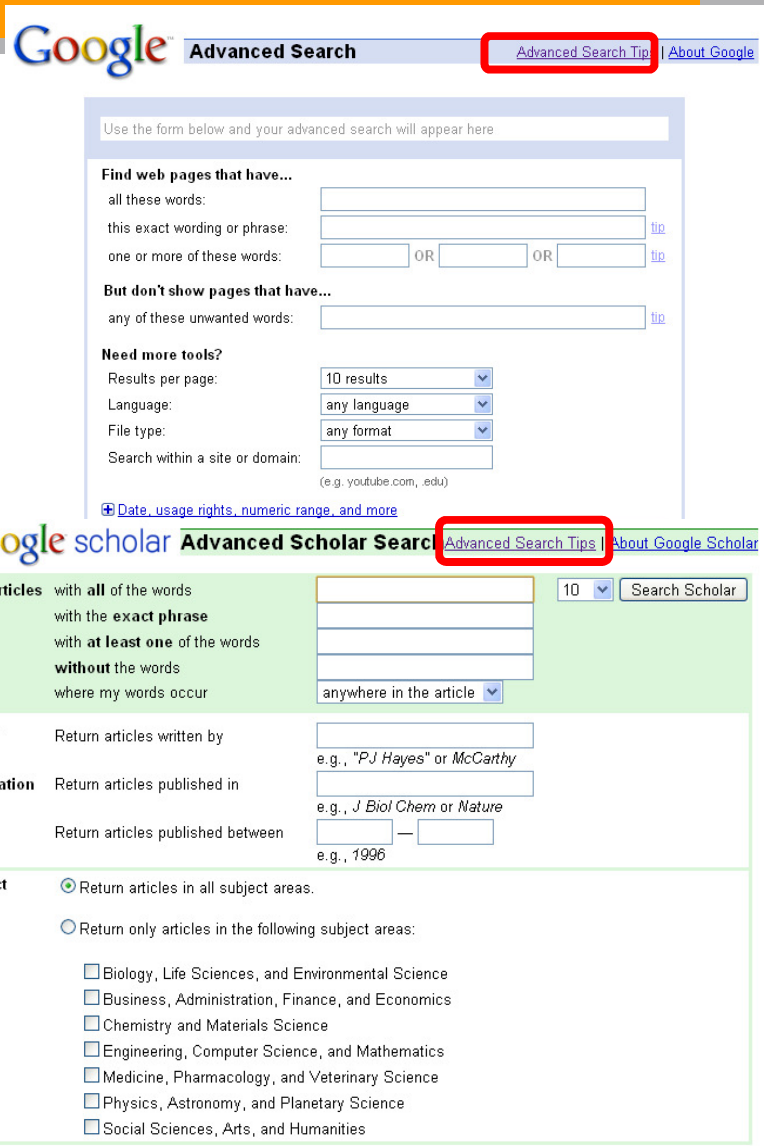
Use the advanced search options

- **Within Google and Google Scholar use the advanced searches and check out the Search Tips.**

- **In ScienceDirect, Scopus, WoS/WoK and other databases use proximity operators:**
  - w/n ← Within - (non order specific)
  - pre/n ← Precedes - (order specific)

E.g. wind w/3 energy



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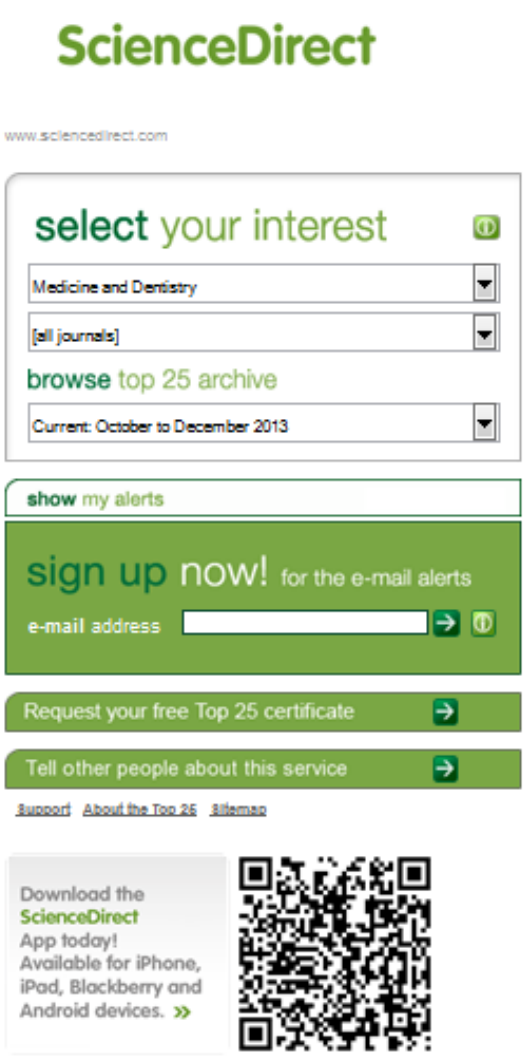
Practical Advice - Strategic Information Gathering

- **Find out what's Hot**
  - http://info.scopus.com/topcited/
  - http://top25.sciencedirect.com/
  - Almetrics Application
- **Find the trends of the subject area**
  - Search tips (including alerts)
  - Journals, authors, publications per year (Scopus)
  - PubMed, for example, shows number of papers per keyword per year published
- **Evaluate which journal is right for your manuscript**
  - Impact Factor
  - Journal Analyzer (Scopus)
  - SNIP & SJR (www.journalmetrics.com)
  - *h*-Index
- **Find out more about the journals**
  - Who are the editors?
  - Guide for authors

IF & SNIP & SJR

Find out what's Hot (downloads)



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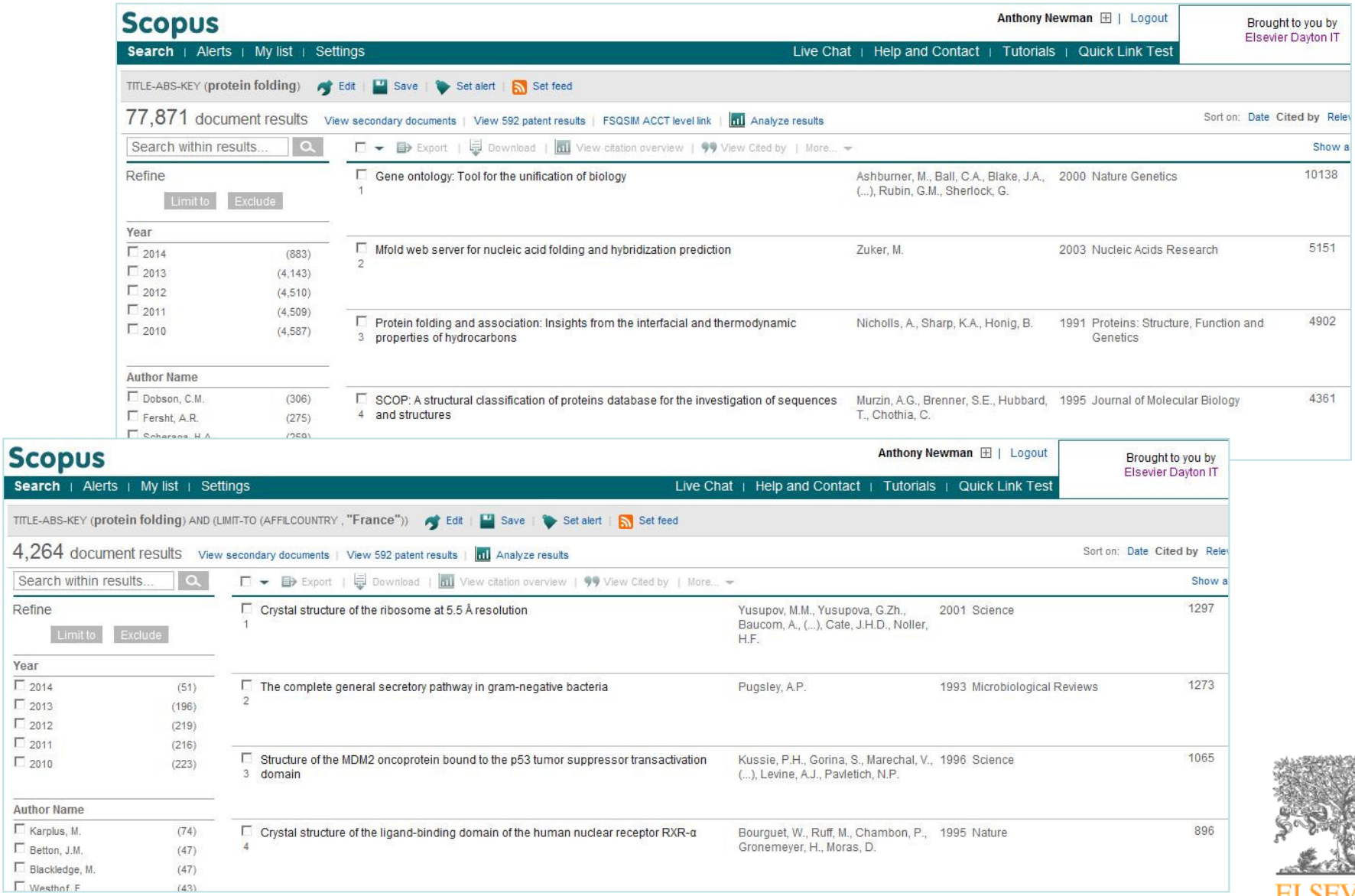
Find out what is being cited and from where



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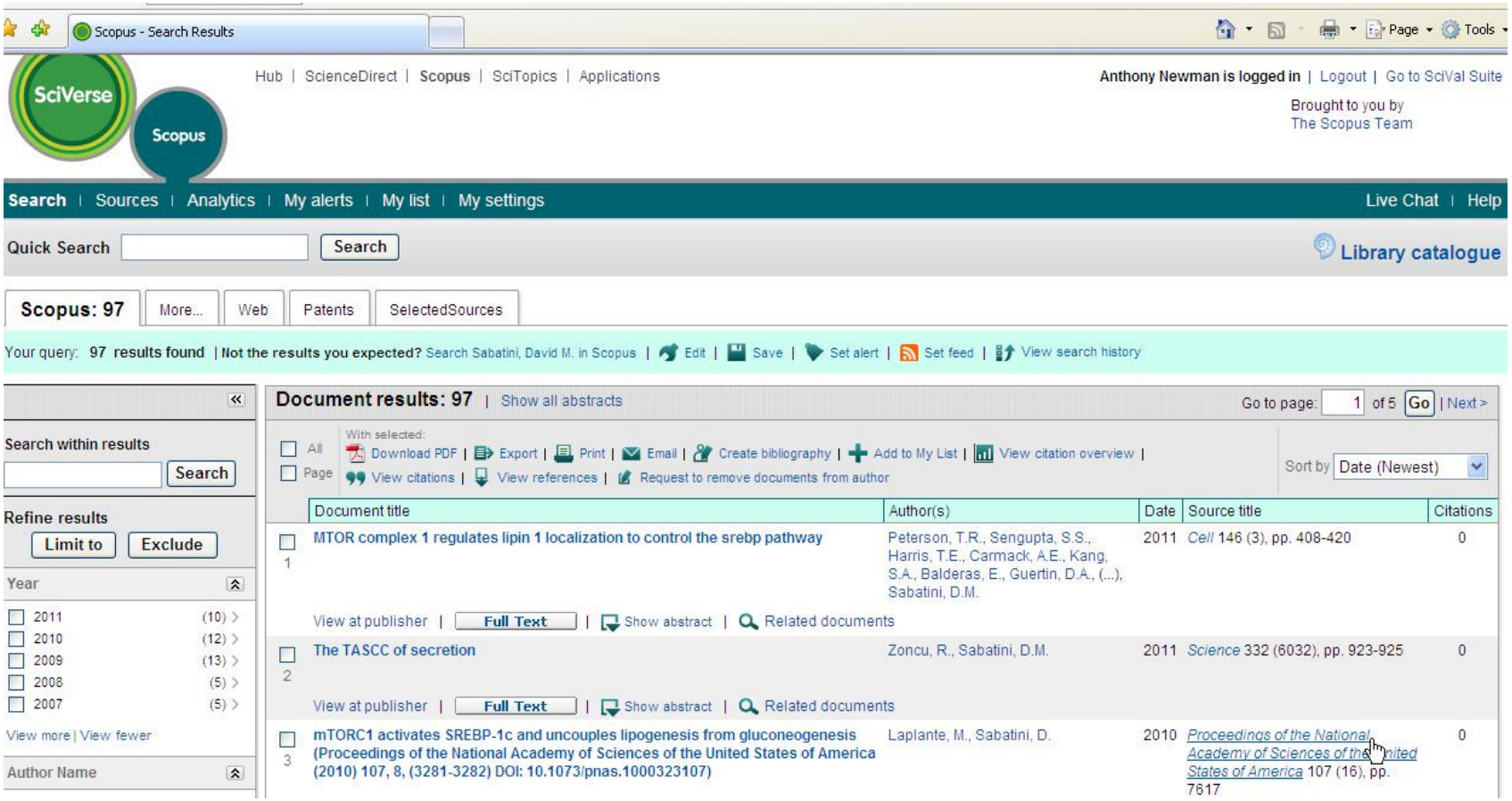
Find out who is being cited



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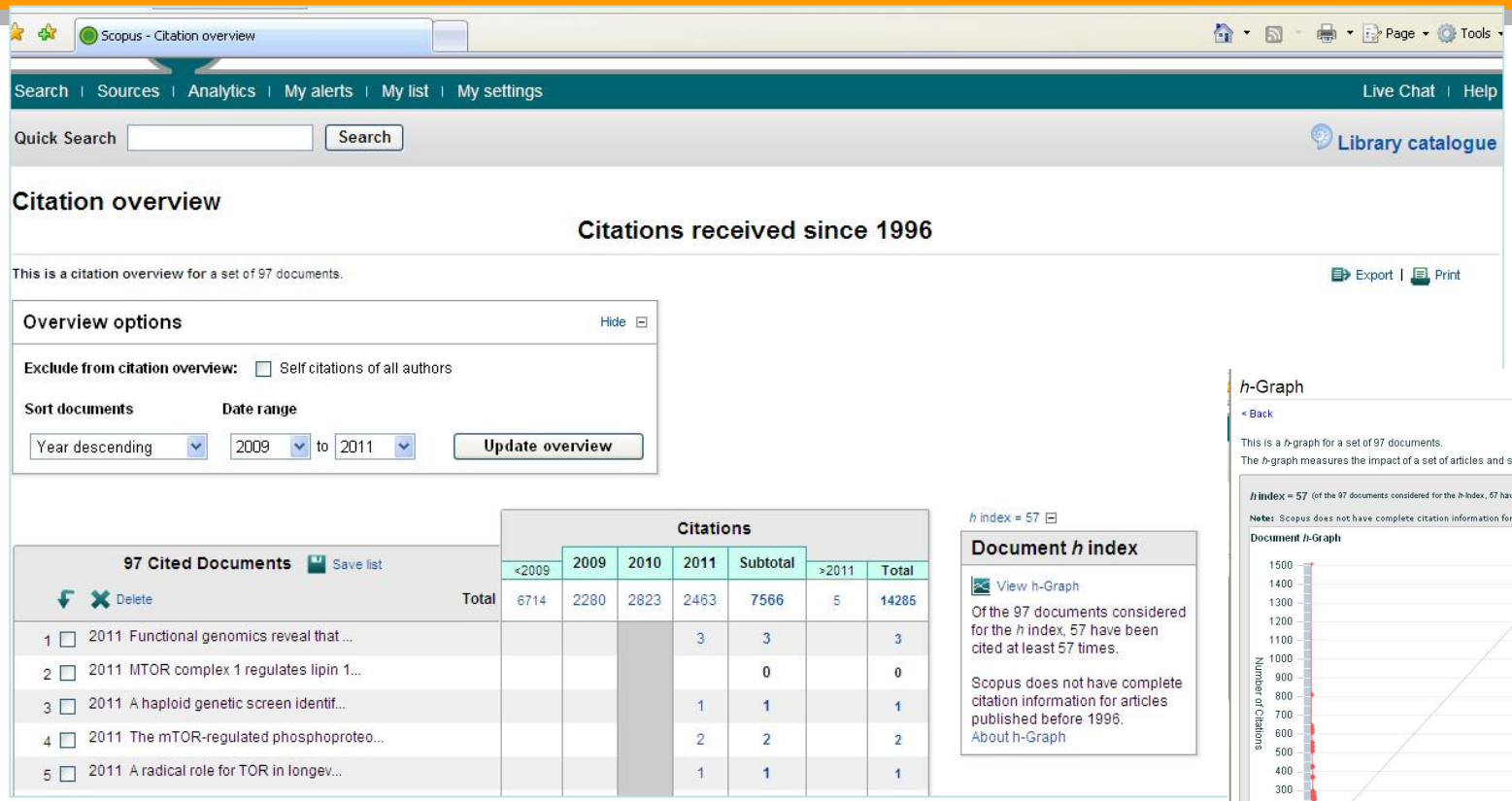
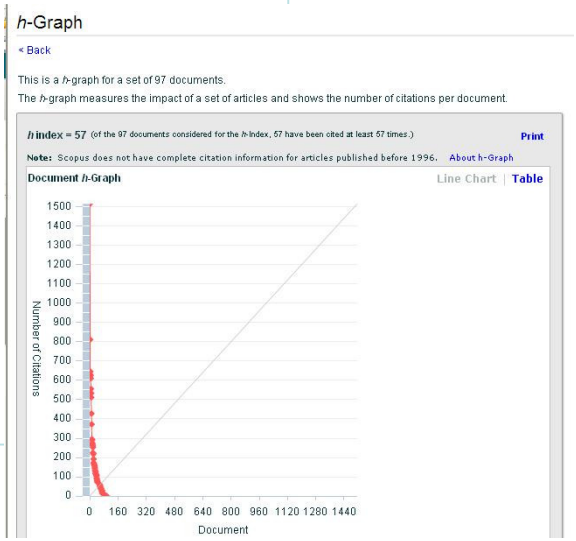
Find out who is being cited – in more depth





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Questions to answer before you write

Think about **WHY you want to publish your work**.

- Is it **new and interesting**?
- Is it a current **hot topic**?
- Have you **provided solutions** to some difficult problems?
- Are you **ready** to publish at this point?

If **all answers are "yes", then start preparations for your manuscript**

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What type of manuscript?

- **Full articles/Original articles;**
- **Letters/Rapid Communications/Short communications/ Case reports;**
- **Review papers/perspectives;**

Self-evaluate your work: Is it sufficient for a full article? Or are your results so thrilling that they need to be shown as soon as possible?

Ask your supervisor and colleagues for advice on manuscript type. Sometimes outsiders see things more clearly than you.

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Select the best journal for submission

- Look at **your references –** these should help you narrow your choices.

- **Review** recent publications in **each "candidate journal"**. Find out the hot topics, the accepted types of articles, etc.

- Ask yourself the following questions:
  - Is the journal **peer-reviewed** to the right level?
  - Who is this journal's **audience**?
  - How **fast** does it make a decision or publish your paper?
  - What is the journal's **Impact Factor**?
  - Does it really exist or is **dubious**? (check for example Beall's List of Predatory Open Access Publishers) http://scholarlyoa.com/2014/01/02/list-of-predatory-publishers-2014/

- **DO NOT gamble by submitting your manuscript to more than one journal at a time.**
  - International ethics standards prohibit multiple/simultaneous submissions, and editors DO find out! (Trust us, they DO!)

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Identify the right audience for your paper

- Identify the sector of readership/community for which a paper is meant

- Identify the interest of your audience

- Get advice from your university library team on where to publish

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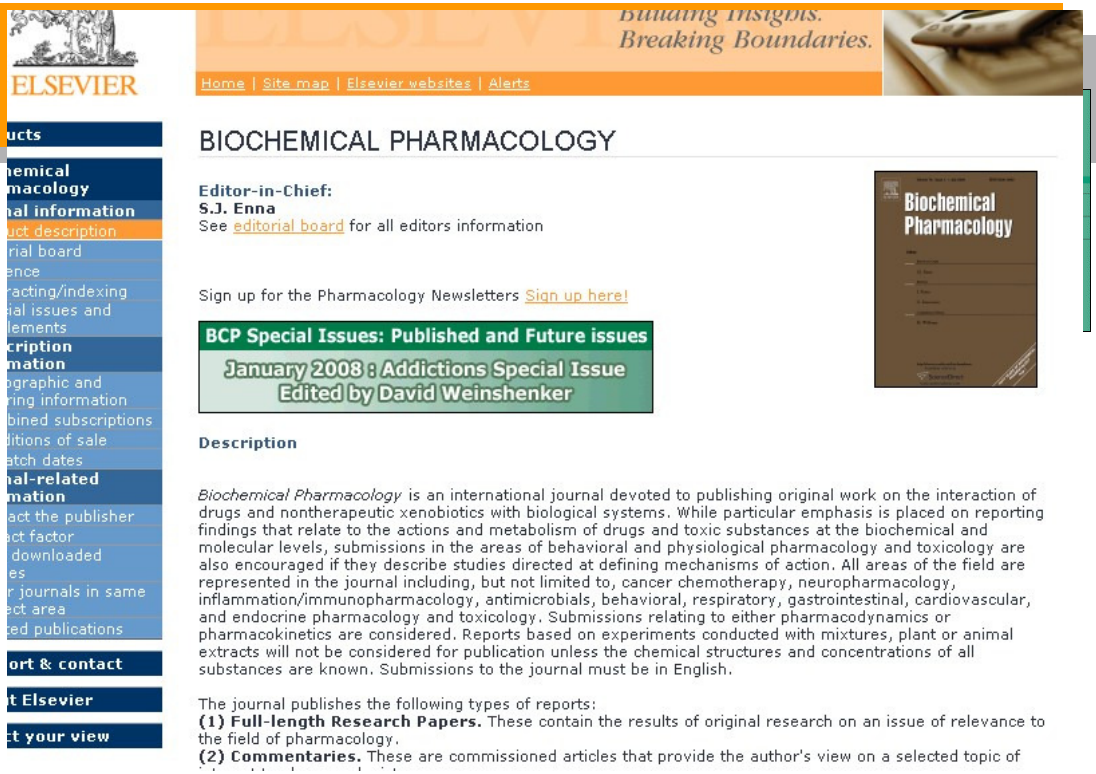
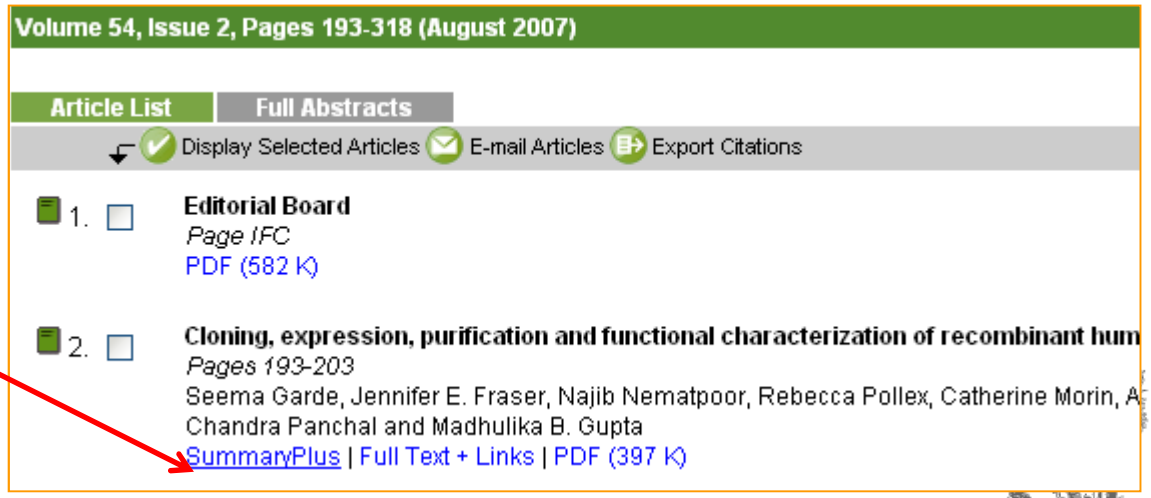
Choose the right journal

- **Investigate all candidate journals to find out**
  - Aims and scope
  - Accepted types of articles
  - Readership
  - Current hot topics
    - go through the abstracts of recent publications)





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What is the Impact Factor (IF)?

Impact Factor

[the average annual number of citations per article published]

- For example, the 2013 impact factor for a journal is calculated as follows:
  - *A* = the number of times articles published in 2011 and 2012 were cited in indexed journals during 2013
  - *B* = the number of "citable items" (usually articles, reviews, proceedings or notes; not editorials and letters-to-the-Editor) published in 2011 and 2012
  - 2013 impact factor = *A*/*B*
  - **e.g. $\frac{\text{600 citations}}{\text{150 + 150 articles}}$ = 2.000**

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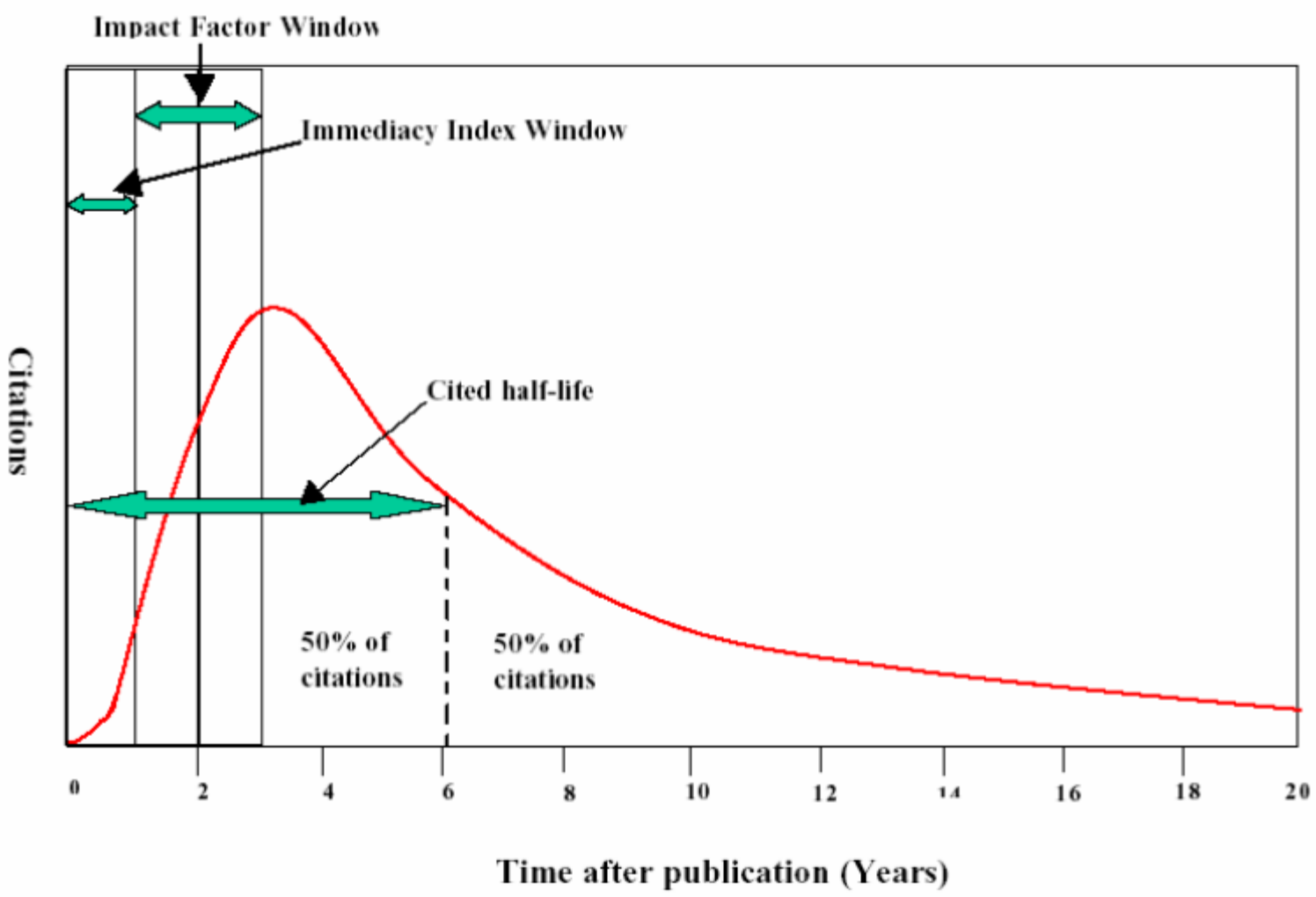
Impact Factor and other bibliometric parameters



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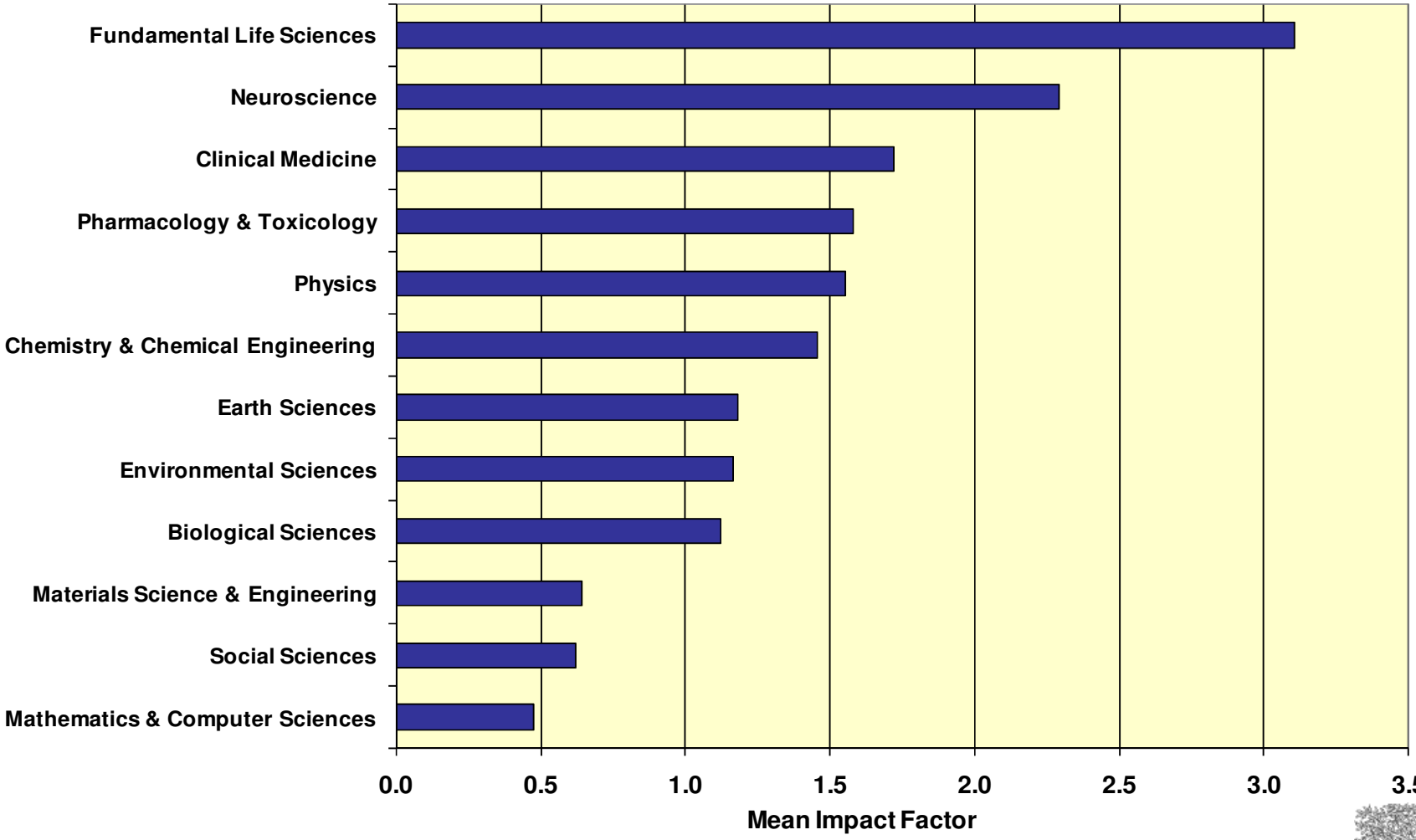
Influences on Impact Factors: Subject Area



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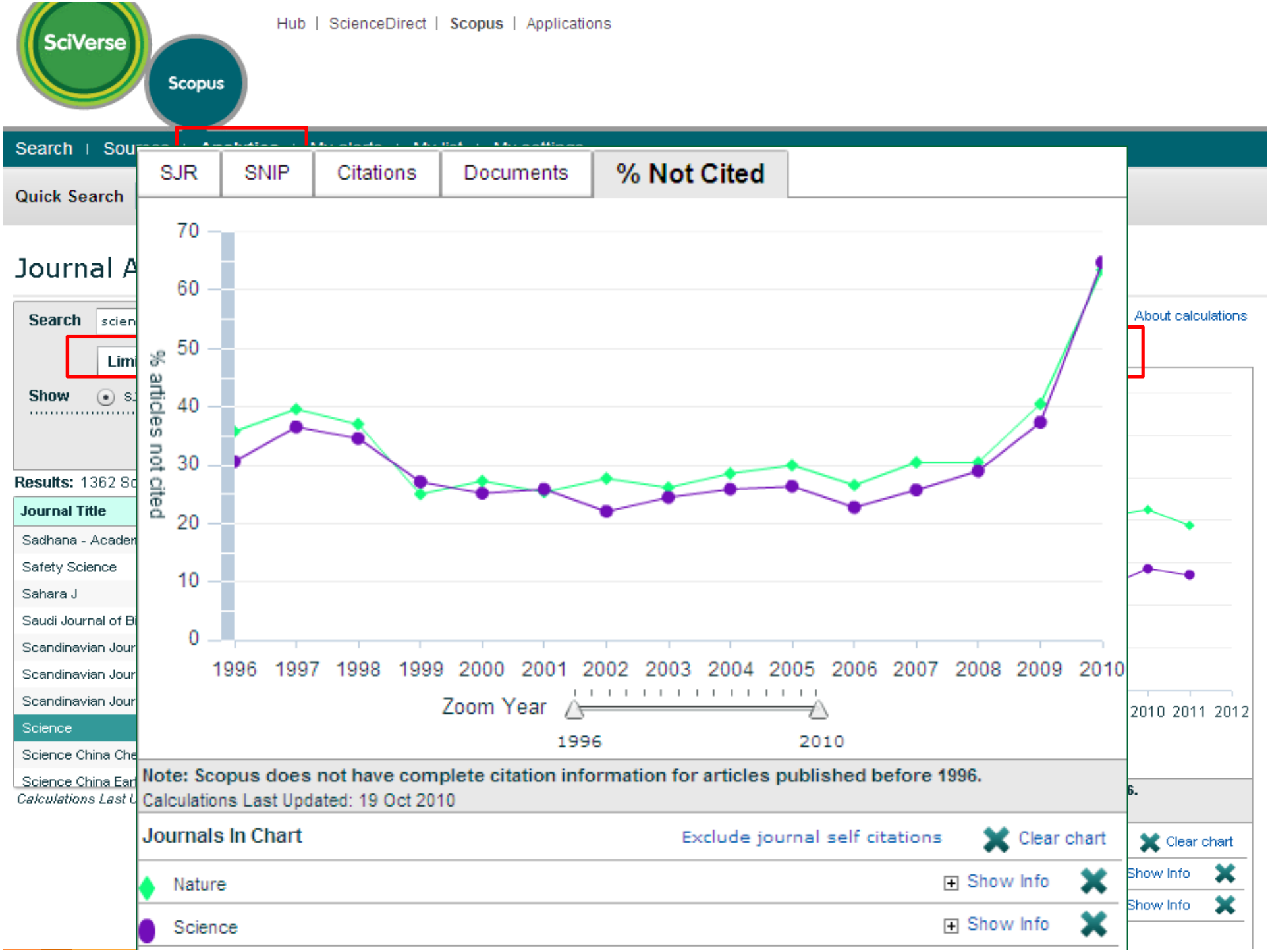
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Exclude journal self citations
Clear chart
Nature
Show Info
Science
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About calculations
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Clear chart
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Your Journals list for this manuscript

So you now have a sequence list of candidate journals for your manuscript?

All authors of the submission agree to this list

Write your draft as if you are going to submit to the first on your list. Use its Guide to Authors

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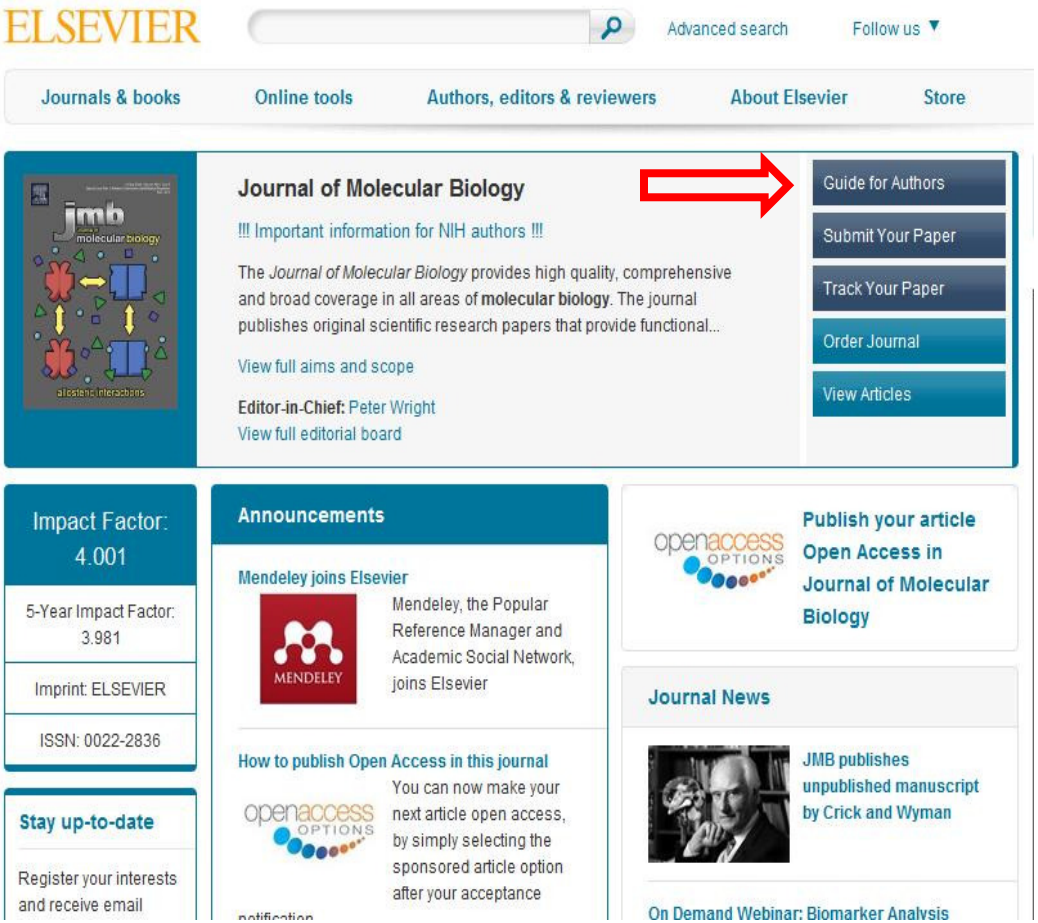
Read the 'Guide to Authors'- Again and again!

- **Stick to the Guide for Authors in your manuscript, even in the first draft (text layout, nomenclature, figures & tables, references etc.).**
  In the end it will save you time, and also the editor's.

- **Editors (and reviewers) do not like wasting time on poorly prepared manuscripts. It is a sign of disrespect.**



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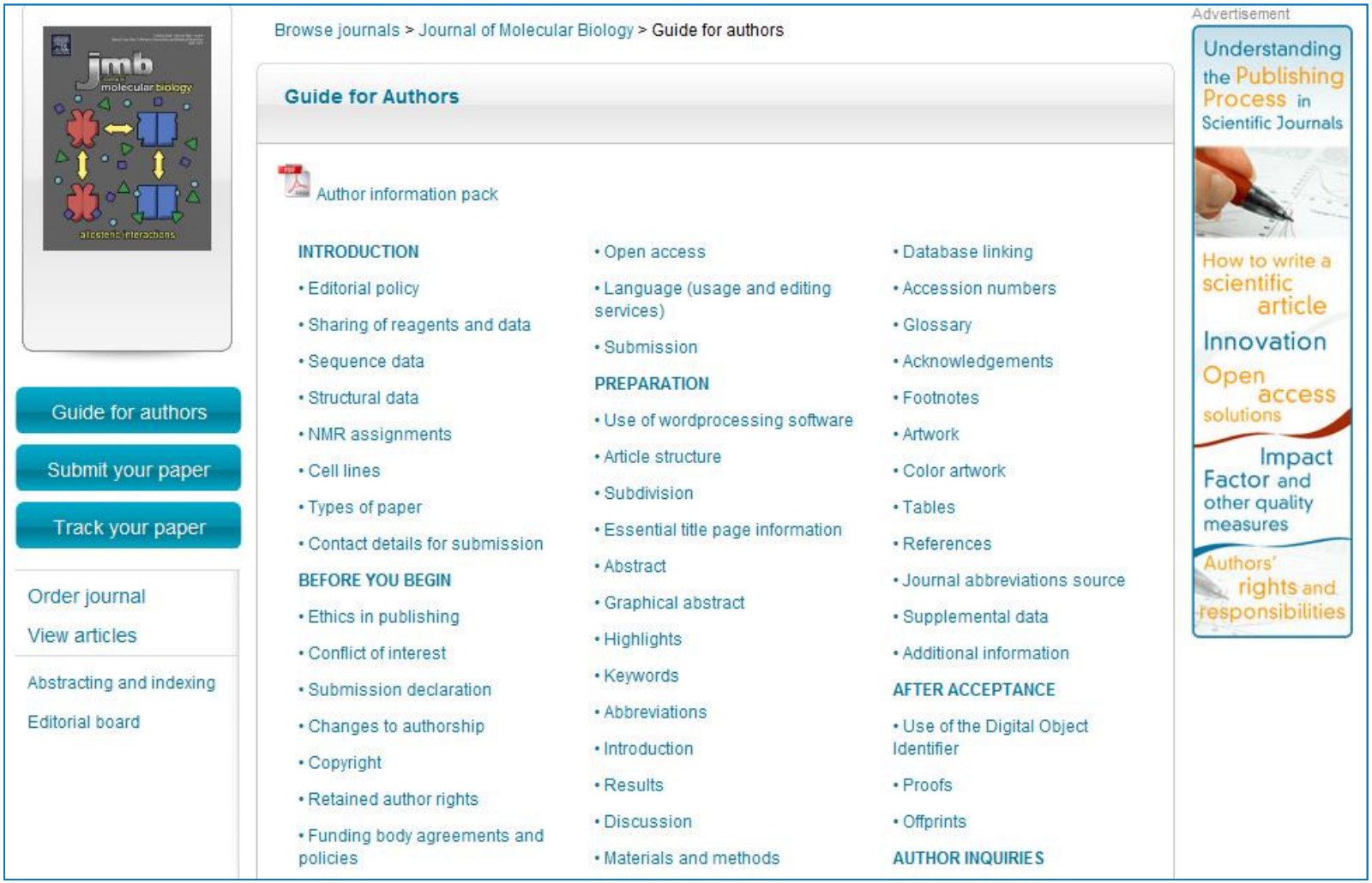
Read the ‘Guide to Authors’- Again and again!



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Common problems with submissions:

An international editor says…

"The following problems appear much too frequently"

- *Submission of papers which are clearly out of scope*
- *Failure to format the paper according to the Guide for Authors*
- *Inappropriate (or no) suggested reviewers*
- *Inadequate response to reviewers*
- *Inadequate standard of English*
- *Resubmission of rejected manuscripts without revision*

– Paul Haddad, Editor, *Journal of Chromatography A*

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Why Is Language Important?

Save your editor and reviewers the trouble of guessing what you mean

Complaint from an editor:

"[This] paper fell well below my threshold. I refuse to spend time trying to understand what the author is trying to say. Besides, I really want to send a message that they can't submit garbage to us and expect us to fix it.

My rule of thumb is that if there are *more than 6 grammatical errors* in the abstract, then I don't waste my time carefully reading the rest."

Scientific Language – Overview

Write with clarity, objectivity, accuracy, and brevity.

- **Key to successful scientific writing is to be alert for common errors:**
  - Sentence construction
  - Incorrect tenses
  - Inaccurate grammar
  - Not using English

Check the Guide for Authors of the target journal for language specifications

Scientific Language – Sentences

- Write direct and short sentences – more professional looking.
- One idea or piece of information per sentence is sufficient
- Avoid multiple statements in one sentence – they are confusing to the reader.

An example of what NOT to do:

"If it is the case, intravenous administration should result in that emulsion has higher intravenous administration retention concentration, but which is not in accordance with the result, and therefore the more rational interpretation should be that SLN with mean diameter of 46nm is greatly different from emulsion with mean diameter of 65 nm in entering tumor, namely, it is probably difficult for emulsion to enter and exit from tumor blood vessel as freely as SLN, which may be caused by the fact that the tumor blood vessel aperture is smaller."

Authorship: Who is allowed to be an Author?

- **Policies regarding authorship can vary**
- **Most common example: the International Committee of Medical Journal Editors ("Vancouver Group") declared that an author must:**
  1. **substantially contribute** to conception and design, or acquisition of data, or analysis and interpretation of data;
  2. **draft** the article or **revise** it critically for important intellectual content; and
  3. **give their approval** of the final full version to be published.
  4. **ALL three** conditions must be fulfilled to be an author!

All others would qualify as "Acknowledged Individuals"

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Authorship - Sequence & Abuses

- **General principles for who is listed first:**
  - First Author
    - Conducts and/or supervises the data generation and analysis and the proper presentation and interpretation of the results
    - Puts paper together and submits the paper to journal
  - Corresponding author
    - The first author or a senior author from the institution
      - Particularly when the first author is a PhD student or postdoc, and may move to another institution soon.

- **Abuses to be avoided:**
  - Ghost Authorship: leaving out authors who should be included
  - Gift Authorship: including authors who did not contribute significantly

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Author names: common problems

- **Different Spellings**
  - J**ä**rvinen / J**ae**rvinen / J**a**rvinen
  - Lue**ß**en / Lue**b**en / Lue**ss**en
  - van **H**arten / **V**anharten / Van
- First/Last Names
  - Asian names often difficult for Europeans or Americans
  - Spell out first name – do not use initial
- How about marriage/divorce?

Be consistent!

If you are not, how can others be?

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ORCID: Author Profile 2.0

ORCID
Connecting Research and Researchers

- Open
- Researcher &
- Contributor
- ID

The Challenge:

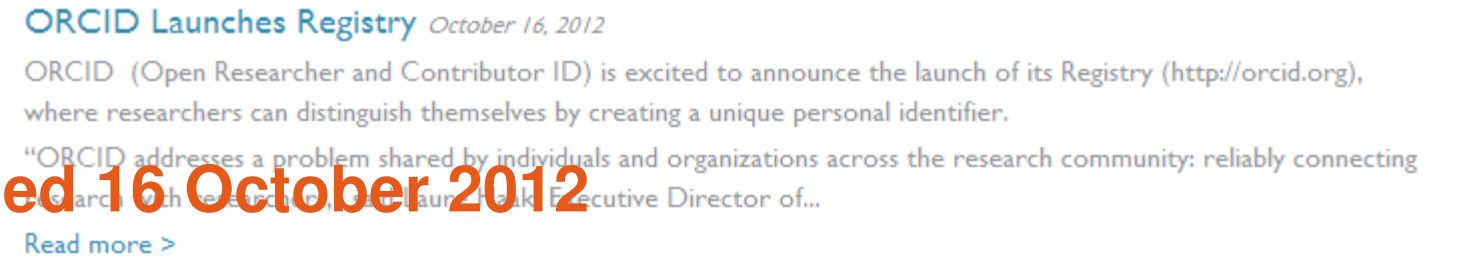
- **The scholarly record is broken**
- **Name ambiguity is an issue**

The Solution:

- **Establish a researcher identifier registry (partnership between Univs, Publishers, funding bodies…)!**

The Benefits:

- **Current authors can claim already published work**
- **New authors can establish unique identifier**



ORCID Launches Registry *October 16, 2012*

ORCID (Open Researcher and Contributor ID) is excited to announce the launch of its Registry (http://orcid.org), where researchers can distinguish themselves by creating a unique personal identifier.

"ORCID addresses a problem shared by individuals and organizations across the research community: reliably connecting research with researchers," said Laure Haak, Executive Director of...

Read more >

Launched 16 October 2012

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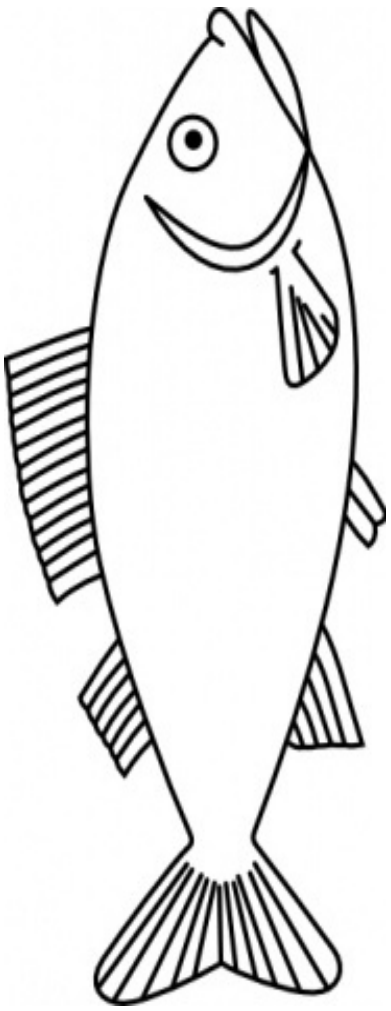
Typical Structure of a Research Article



- Title
- Abstract
- Keywords

Make them easy for indexing and searching! (informative, attractive, effective)

- Main text (IMRAD)
  - Introduction
  - Methods
  - Results
  - And
  - Discussions

Journal space is not unlimited.

Your reader's time is scarce.

Make your article as concise as possible - more difficult than you imagine!

- Conclusion
- Acknowledgement
- References
- Supplementary Data

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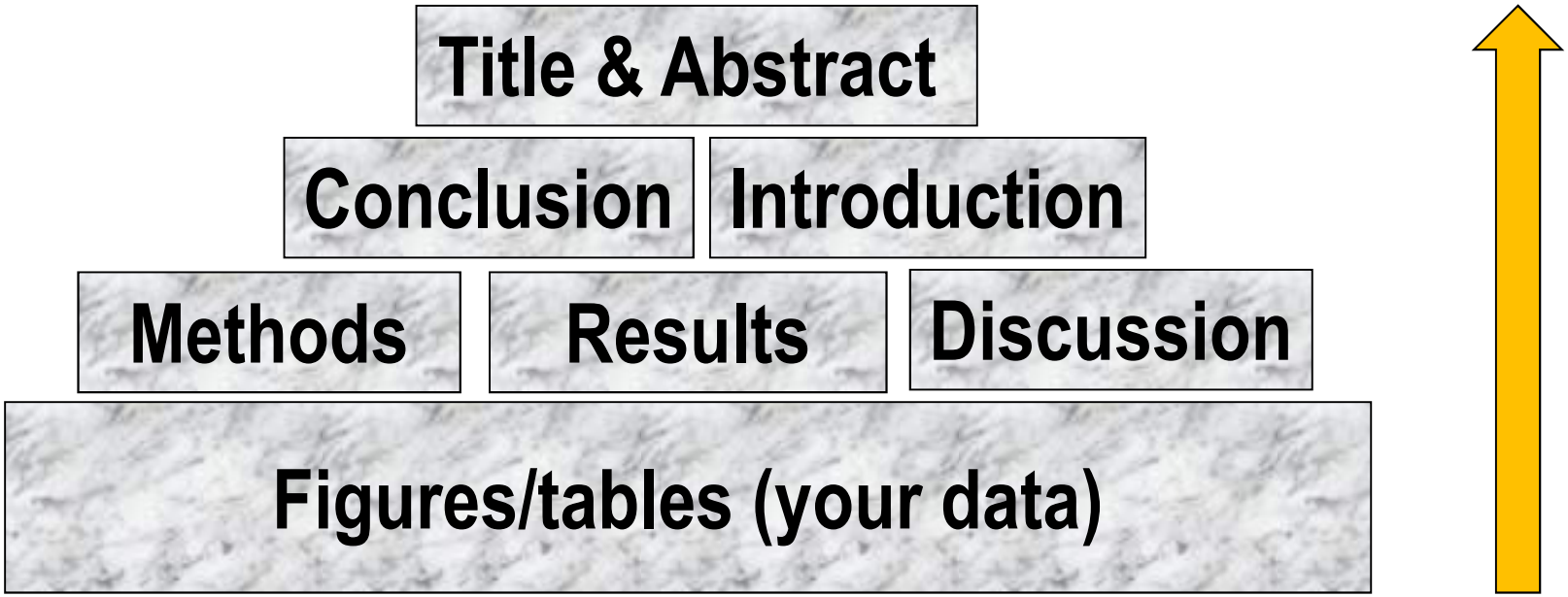
The process of writing – building the article



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Title

- **A good title should contain the fewest possible words that adequately describe the contents of a paper.**

- **Effective titles**
  - Identify the main issue of the paper
  - Begin with the subject of the paper
  - Are accurate, unambiguous, specific, and complete
  - Are as short as possible
  - Articles with short, catchy titles are often better cited
  - Do not contain rarely-used abbreviations
  - Attract readers - Remember: readers are the potential authors who will cite your article

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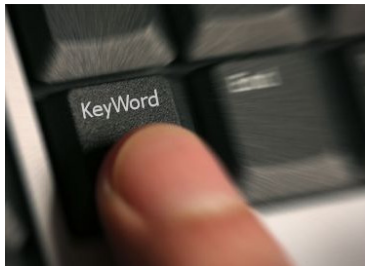
Keywords

In an “electronic world, keywords determine whether your article is found or not!



Avoid making them

- too general (“drug delivery”, “mouse”, “disease”, etc.)
- too narrow (so that nobody will ever search for it)

Effective approach:

Look at the keywords of articles relevant to your manuscript

Play with these keywords, and see whether they return relevant papers, neither too many nor too few – a good guideline.

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Abstract

Tell readers what you did and the important findings

- One paragraph (between 50-250 words) often, plus Highlight bullet points
- Advertisement for your article, and should encourage reading the entire paper
- A clear abstract will strongly influence if your work is considered further

Graphite intercalation compounds (GICs) of composition C*x*N(SO2CF3)2 · *δ*F are prepared under ambient conditions in 48% hydrofluoric acid, using K2MnF6 as an oxidizing reagent. The stage 2 GIC product structures are determined using powder XRD and modeled by fitting one dimensional electron density profiles.

A new digestion method followed by selective fluoride electrode elemental analyses allows the determination of free fluoride within products, and the compositional *x* and *δ* parameters are determined for reaction times from 0.25 500 h.

What has been done

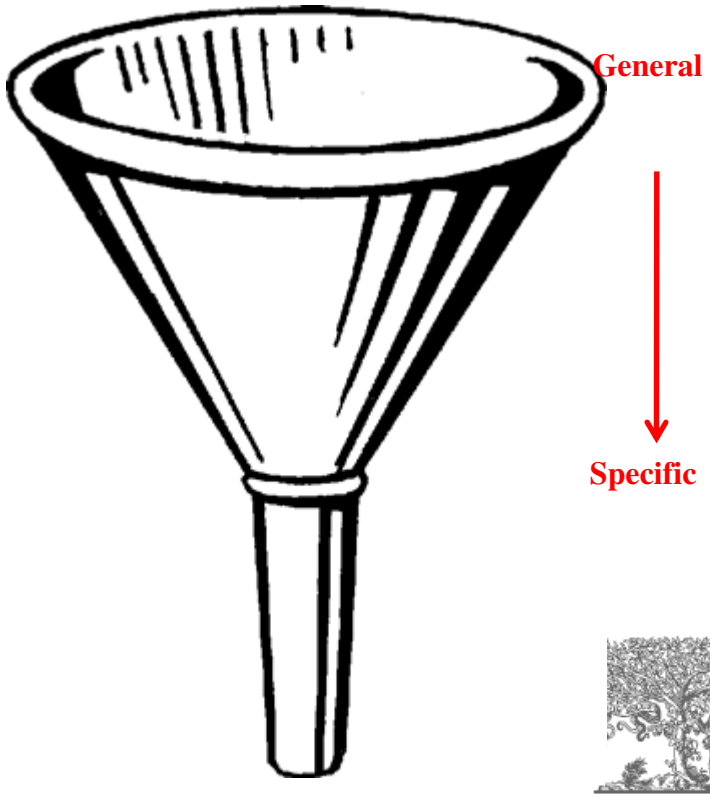
What are the main findings

Introduction

The place to convince readers that you know why your work is relevant, also for them

Answer a series of questions:

- What is the problem?
- Are there any existing solutions?
- Which one is the best?
- What is its main limitation?
- What do you hope to achieve?



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Pay attention to the following

- **Before you present your new data, put them into perspective first**
- **Be brief, it is not a history lesson**
- **Do not mix introduction, results, discussion and conclusions. Keep them separate**
- **Do not overuse expressions such as “novel”, “first time”, “first ever”, “paradigm shift”, etc.**
- **Cite only relevant references**
  - Otherwise the editor and the reviewer may think you don’t have a clue where you are writing about!

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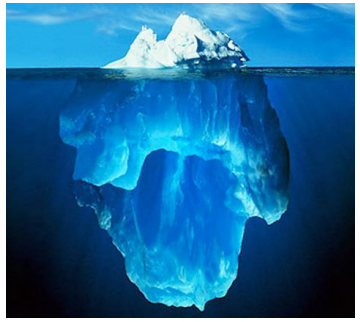
Methods / Experimental

- **Include all important details so that the reader can repeat the work.**
  - Details that were previously published can be omitted but a general summary of those experiments should be included
- **Give vendor names (and addresses) of equipment etc. used**
- **All chemicals must be identified**
  - Do not use proprietary, unidentifiable compounds without description. State purity and/or supplier if it is important.
- **Present proper control experiments**
- **Avoid adding comments and discussion**
- **Write in the past tense**
  - Most journals prefer the passive voice, some the active.
- **Consider use of Supplementary Materials**
  - Documents, spreadsheets, audio, video, ...

Reviewers will criticize incomplete or incorrect method descriptions, and may even recommend rejection

Results – what have you found?

- **The following should be included**
  - the **main findings**
    - Thus not *all* findings. Decide what to share.
    - Findings from experiments described in the Methods section
  - Highlight findings that **differ** from findings in previous publications, and **unexpected** findings
  - Results of the **statistical analysis**

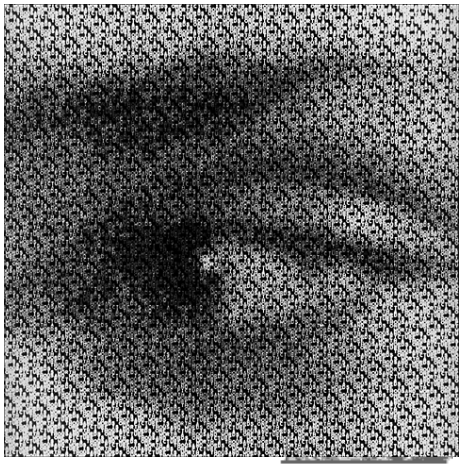


51

Results – Figures and tables

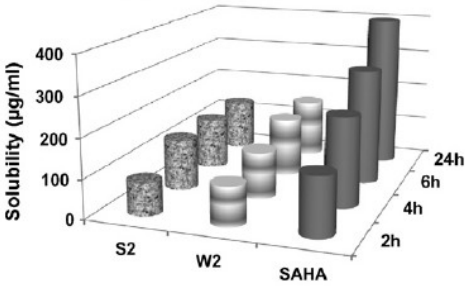
- **Illustrations are critical, because:**
  - Figures and tables are the most efficient way to present results
  - Results are the driving force of the publication
  - Captions and legends must be detailed enough to make figures and tables self-explanatory
  - Figures and tables should not need further explanation or description in text. Less writing and less reading. Let your figures do the work instead of words.

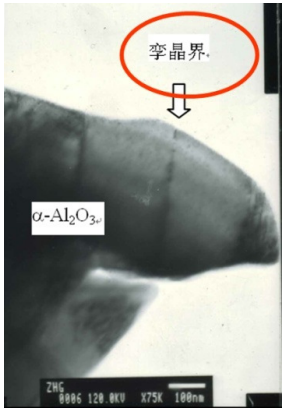
"One Picture is Worth a Thousand Words"
Sue Hanauer (1968)

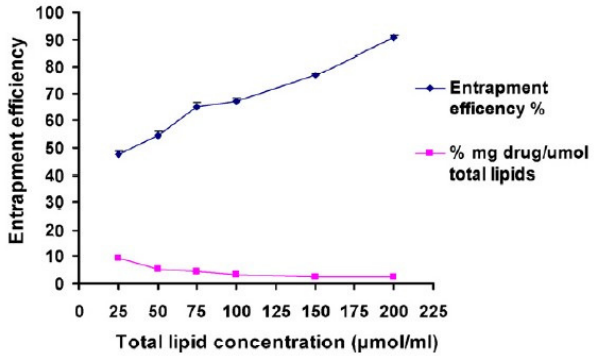


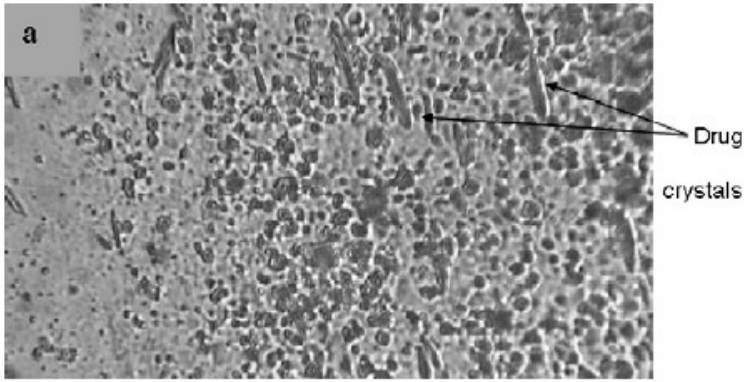
Results – Appearance counts!

- Un-crowded plots
  - 3 or 4 data sets per figure; well-selected scales; appropriate axis label size; symbols clear to read; data sets easily distinguishable.
- Each photograph must have a scale marker of professional quality in a corner.
- Text in photos / figures in English
  - Not in French, German, Chinese, Korean, ...
- Use color *ONLY* when necessary.
  - If different line styles can clarify the meaning, then never use colors or other thrilling effects.
- If used, color must be visible/distinguishable when printed in black & white.
- Do not include long boring tables!









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Discussion – what do your results mean?

- **It is the most important section of your article. Here you get the chance to SELL your data!**
  - Many manuscripts are rejected because the Discussion is weak

- **Check for the following:**
  - ✓ Do your results relate to the original question or objectives outlined in the Introduction section?
  - ✓ Do you provide interpretation for each of your results presented?
  - ✓ Are your results consistent with what other investigators have reported? Or are there any differences? Why?
  - ✓ Are there any limitations?
  - ✓ Does the discussion logically lead to your conclusion?

- **Do not:**
  - Make statements that go beyond what the results can support
  - Suddenly introduce new terms or ideas

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Conclusions

- **Present global and specific conclusions**
- **Indicate uses and extensions if appropriate**
- **Suggest future experiments and indicate whether they are underway**
- **Do not summarize the paper**
  - The abstract is for that purpose
- **Avoid judgments about impact**
  - Others can comment, you should not.

References: get them right!

- **Please adhere to the Guide for Authors of the journal**
- **It is your responsibility, not of the Editor's, to format references correctly!**
- **Check**
  - Referencing style of the journal
  - The spelling of author names, the year of publication
  - Punctuation use
  - Use of "et al.": "et al." translates to "and others",
- **Avoid citing the following if possible:**
  - Personal communications, unpublished observations, manuscripts not yet accepted for publication
    - Editors may ask for such documents for evaluation of the manuscripts
  - Articles published only in the local language, which are difficult for international readers to find

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Some Publishers are helpful!

"Imagine if contributors could submit their papers to a journal without worrying about formatting the manuscript, including those pesky references, to exacting specifications?“ ***Kelvin J.A. Davies, 2012***

Called Your Paper Your Way, introduced to the journal Free Radical Biology & Medicine and now offered in more than 640 Elsevier journals.

More than half of authors find it easier and more helpful. Reviewers are equally happy as figures and tables can be put in the right place by authors to allow easier review.

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We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper into a "correct format" for acceptance and provide the items required for the publication of your article.

To find out more, please visit the Preparation section below.

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Reference Management Software helps

- **Many journals are helpful in formatting the journal reference style for you (e.g. Elsevier's Your Paper Your Way service).**
- **If the publisher is not offering this service it is <u>your</u> responsibility to format references correctly!**

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Supplementary Material

- **Data of secondary importance for the main scientific thrust of the article**
  - e.g. individual curves, when a representative curve or a mean curve is given in the article itself
- **Or data that do not fit into the main body of the article**
  - e.g. audio, video, ...
- **Original figure before color correction or trimming for clarity**
- **Not part of the printed article**
  - Will be available online with the published paper
- **Must relate to, and support, the article**

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Professor H. D. Schmidt
School of Science and Engineering
Northeast State University
College Park, MI 10000
USA

January 1, 2008

Dear Professor Schmidt,

Enclosed with this letter you will find en electronic submission of a manu
entitled "Mechano-sorptive creep under compressive loading – a microm
model" by John Smith and myself. This is an original paper which
previously nor simultaneously in whole or in part been submitted
Both authors have read and approved the final version submitted.

Mechano-sorptive is sometimes denoted as accelerated creep. It has been experimentally observed that the creep of paper accelerates if it is subjected to a cyclic moisture content. This is of large practical importance for the paper industry. The present manuscript describes a micromechanical model on the fibre networ level that is able to capture the experimentally observed behaviour. In particular, th difference between mechano-sorptive creep in tension and compression is analyse John Smith is a PhD-student who within a year will present his doctoral thesis. Th present paper will be a part of that thesis.

Three potential independent reviewers who have excellent expertise in the
this paper are:

Dr. Fernandez, Tennessee Tech, email1@university.com
Dr. Chen, University of Maine, email2@university.com
Dr. Singh, Colorado School of Mines, email3@university.com

I would very much appreciate if you would consider the manuscript for publication in the *International Journal of Science*.

ely yours,

A. Professor

Final approval from all authors

Explanation of importance of research

Suggested reviewers

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Suggest potential reviewers

- Your suggestions will help the Editor to move your manuscript to the review stage more efficiently.
- You can easily find potential reviewers and their contact details from articles in your specific subject area (e.g., your references).
- The reviewers should represent at least two regions of the world. And they **should not** be your supervisor or close friends.
- Be prepared to suggest 3-6 potential reviewers, based on the Guide to Authors.

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Do everything to make your submission a success

- **No one gets it right the first time!**
  - **Write, and re-write ….**
- **Suggestions**
  - After writing a first version, take several days of rest. Come back with a critical, fresh view.
  - Ask colleagues and supervisor to review your manuscript. Ask them to be highly critical, and ***be open to their suggestions***.
  - Make changes to incorporate comments and suggestions. Get all co-authors to approve version to submit.

Then it is the point in time to submit your article!

62

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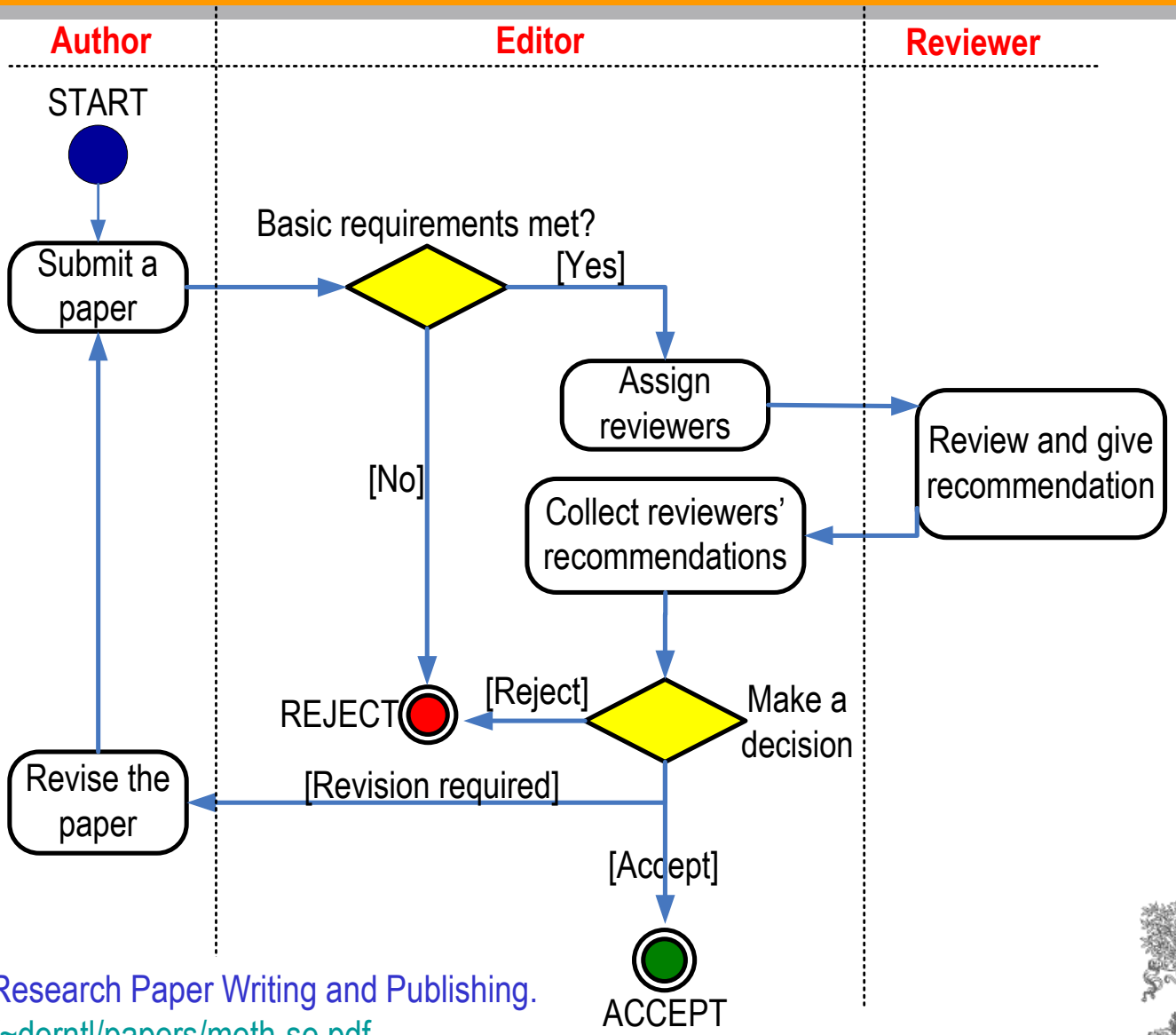
The Peer Review Process – not a black hole!



Michael Derntl. Basics of Research Paper Writing and Publishing.
http://www.pri.univie.ac.at/~derntl/papers/meth-se.pdf

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Initial Editorial Review or Desk Reject

Many journals use a system of initial editorial review. Editors may reject a manuscript without sending it out for review.

Why?

- The peer-review system is grossly overloaded and editors wish to use reviewers only for those papers with a good probability of acceptance.

- It is a disservice to ask reviewers to spend time on work that has clear and evident deficiencies.

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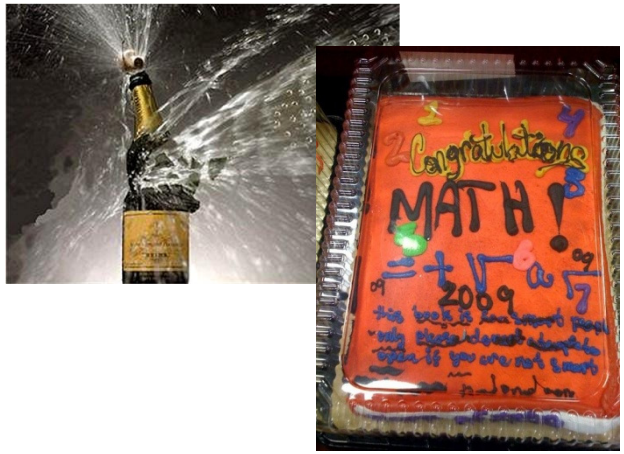
First Decision: “Accepted” or “Rejected”

Accepted

- **Very rare, but it happens**



- **Congratulations!**
  - Cake for the department
  - Now wait for page proofs and then for your article to be online and in print

Rejected

- **Probability 40-90% …**
- **Do not despair**
  - It happens to everybody
- **Try to understand WHY**
  - Consider reviewers’ advice
  - Be self-critical
- **If you submit to another journal, begin as if it were a new manuscript**
  - Take advantage of the reviewers’ comments and revise accordingly
  - They may review your manuscript for the next journal too!
  - Read the Guide for Authors of the new journal, again and again.

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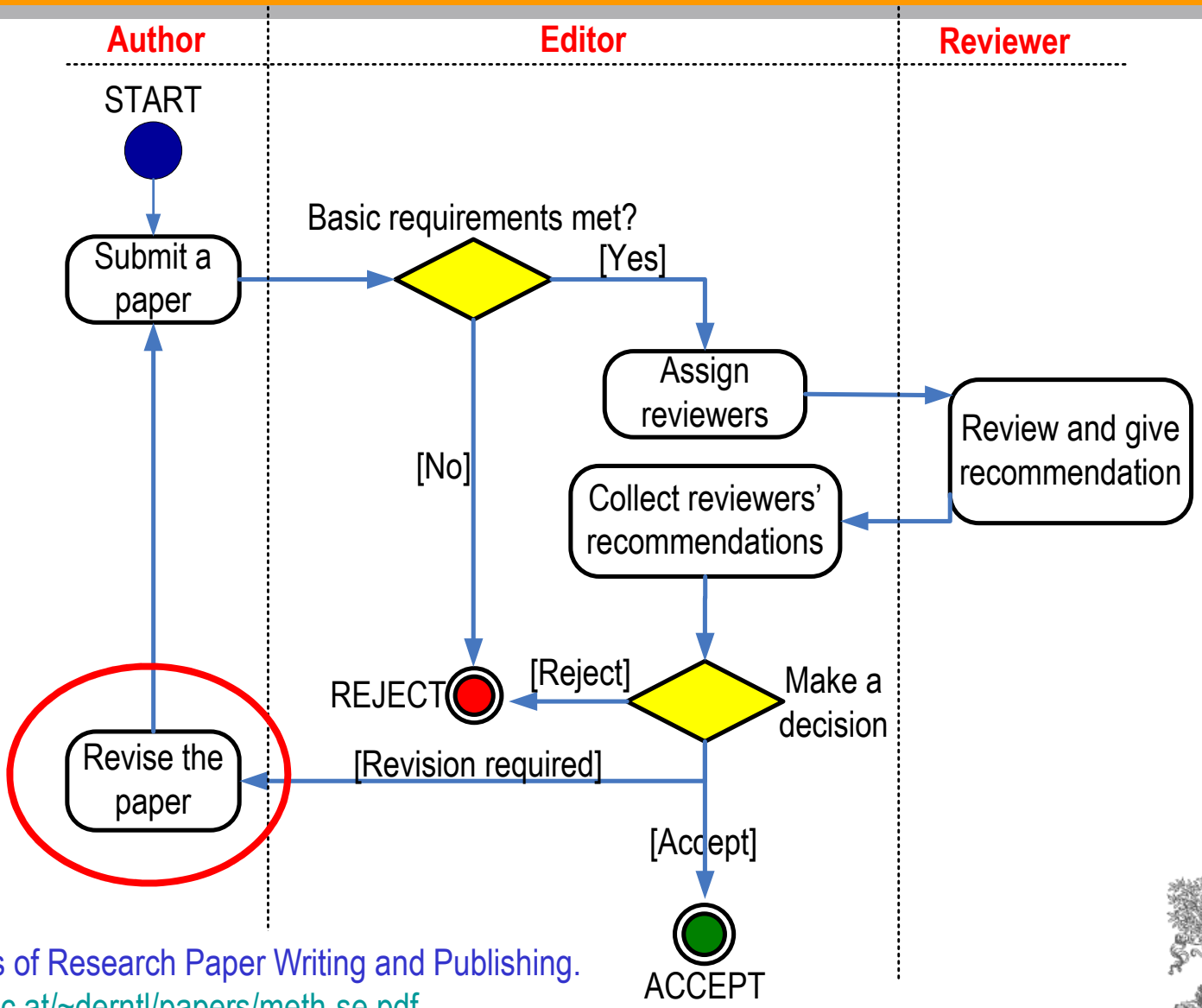
The Peer Review Process – revisions



Michael Derntl. Basics of Research Paper Writing and Publishing.
http://www.pri.univie.ac.at/~derntl/papers/meth-se.pdf

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First Decision: “Major” or “Minor” Revision

- **Major revision**
  - The manuscript may finally be published in the journal
  - Significant deficiencies must be corrected before acceptance
  - Usually involves (significant) textual modifications and/or additional experiments

- **Minor revision**
  - Basically, the manuscript is worth being published
  - Some elements in the manuscript must be clarified, restructured, shortened (often) or expanded (rarely)
  - Textual adaptations
  - “Minor revision” does NOT guarantee acceptance after revision, but often it is accepted if all points are addressed!

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Manuscript Revision

- **Prepare a detailed Response Letter**
  - Copy-paste each reviewer comment, and type your response below it
  - State specifically which changes you have made to the manuscript
    - Include page/line numbers
    - No general statements like “Comment accepted, and Discussion changed accordingly.”
  - Provide a *scientific* response to comments to accept, ...
  - ..... or a convincing, solid and polite rebuttal when you feel the reviewer was wrong.
  - Write in such a manner, that your response can be forwarded to the reviewer without prior editing
- **Do not do yourself a disfavour, but cherish your work**
  - You spent ***weeks*** and ***months*** in the lab or the library to do the research
  - It took you ***weeks*** to write the manuscript.....

.....Why then run the risk of avoidable rejection by not taking manuscript revision seriously?

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Increasing the likelihood of acceptance

All these various steps are not difficult.

You have to be consistent.

You have to check and recheck before submitting.

Make sure you tell a logical, clear, story about your findings.

Especially, take note of referees' comments. They improve your paper.

This should increase the likelihood of your paper being accepted, and being in the 30% (accepted) not the 70% (rejected) group!

What leads to acceptance ?

- **A**ttention to details
- **C**heck and double check your work
- **C**onsider the reviewers' comments
- **E**nglish must be as good as possible
- **P**resentation is important
- **T**ake your time with revision
- **A**cknowledge those who have helped you
- **N**ew, original and previously unpublished
- **C**ritically evaluate your own manuscript
- **E**thical rules must be obeyed

– Nigel John Cook
Editor-in-Chief, *Ore Geology Reviews*

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Responsibilities

As authors we have lots of rights and privileges, but also we have the responsibility to be ethical.

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Ethics Issues in Publishing

Scientific misconduct

- Falsification of results or images

Publication misconduct

- Plagiarism
  - Different forms / severities
  - The paper must be original to the authors
- Duplicate publication
- Duplicate submission
- Appropriate acknowledgement of prior research and researchers
- Appropriate identification of all co-authors
- Conflict of interest

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Data fabrication and falsification

Fabrication: **Making up data or results, and recording or reporting them**

"… the fabrication of research data … *hits at the heart of our responsibility to society*, the reputation of our institution, the trust between the public and the biomedical research community, and our personal credibility and that of our mentors, colleagues…"

"It can *waste the time of others*, trying to replicate false data or designing experiments based on false premises, and can lead to therapeutic errors. It can never be tolerated."

Professor Richard Hawkes
Department of Cell Biology and Anatomy
University of Calgary

"The most dangerous of all falsehoods is a slightly distorted truth."

G.C. Lichtenberg (1742-1799)

Data fabrication and falsification

Falsification:

- Manipulation of research materials, equipment, processes
- Changes in / omission of data or results such that the research is not accurately represented in the research record

"Select data to fit a preconceived hypothesis:

- We do not include (data from) an experiment because '*it did not work*', or
- We show *'representative'* images that do not reflect the total data set, or
- We simply shelve data that do not fit."

Richard Hawkes

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Plagiarism

- **A short-cut to long-term consequences!**
- **Plagiarism is considered a *serious offense* by your institute, by journal editors, and by the scientific community as a whole.**
- **Plagiarism may result in *academic charges*, but will certainly cause rejection of your paper.**
- **Plagiarism will *hurt your reputation* in the scientific community.**

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Duplicate Publication

- **Duplicate Publication is also called Redundant Publication, or Self Plagiarism**
- **Definition: Two or more papers, without full cross reference, share the same hypotheses, data, discussion points, or conclusions**

- **An author should not submit for consideration to another journal a previously published paper.**
  - Published studies do not need to be repeated unless further confirmation is required.
  - Previous publication of an abstract during the proceedings of conferences does not preclude subsequent submission for publication, but full disclosure should be made at the time of submission.
  - Re-publication of a paper in another language is acceptable, provided that there is full and prominent disclosure of its original source at the time of submission.
  - At the time of submission, authors should disclose details of related papers, even if in a different language, and similar papers in press.
  - This includes translations

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Plagiarism Detection Tools

Elsevier is participating in 2 plagiarism detection schemes:

- TurnItIn (aimed at universities)
- iThenticate (aimed at publishers and corporations)

Manuscripts are automatically checked against a database of 30+ million peer reviewed articles which have been donated by 200+ publishers, including Elsevier.

More traditional approach also happens:

- **Editors and reviewers**
- **Your colleagues**
- **Readers**
- **"Other" whistleblowers**
  - "The walls have ears", it seems ...

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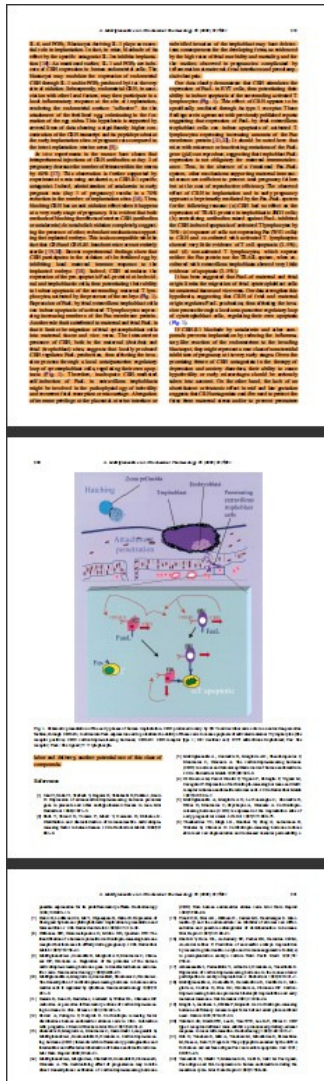
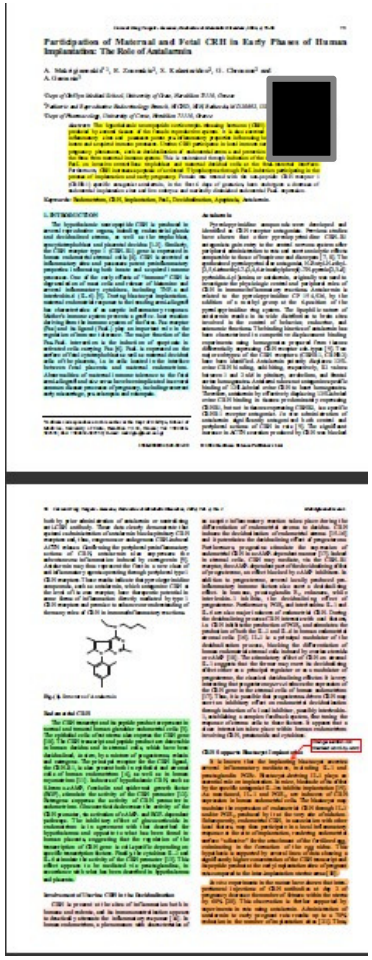
Publication ethics – Self-plagiarism

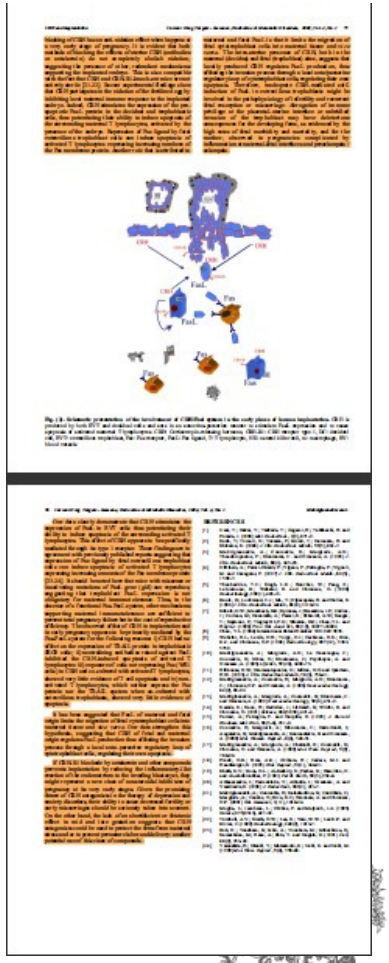
2003



Same colour left and right = Same text

2004





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ScienceDirect

doi:10.1016/j.sigpro.2005.07.019 Cite or Link Using DOI

RETRACTED: Matching pursuit-based approach f

N. [redacted]

a [redacted]
b [redacted]

Available online 24 August 2005.

This article has been retracted at the request of the Editor-in-Chief and P
http://www.elsevier.com/locate/withdrawalpolicy.

Reason: This article is virtually identical to the previously published articl
algorithm for SNR improvement in ultrasonic NDT" , *Independent Nonde*
International, volume 38 (2005) 453 – 458 authored by [redacted]

the echoes issuing from the flaws to be detected. Therefore, it cannot be cancelled by classical time averaging or matched band-pass filtering techniques.

Many signal processing techniques have been utilized for signal-to-noise ratio (SNR) improvement in ultrasonic NDT of highly scattering materials. The most popular one is the split spectrum processing (SSP) [1–3], because it makes possible real-time ultrasonic test for industrial applications, providing quite good results. Alternatively to SSP, wavelet transform (WT) based denoising/detection methods have been proposed during recent years [4–8], yielding usually to higher improvements of SNR at the expense of an increase in complexity. Adaptive time-frequency analysis by basis pursuit (BP) [9,10] is a recent technique for decomposing a signal into an optimal superposition of elements in an over-complete waveform dictionary. This technique and some other related techniques have been successfully applied to denoising ultrasonic signals co[illegible]taminated with grain noise in highly scatteri[illegible] materials [11,12], as an alternative to the WT technique, the computational cost o[illegible] BP algorithm being the main drawback.

In this paper, we propose a [illegible]el m[illegible] pursuit-based signal processi[illegible] proving SNR in ultraso[illegible] NDT [illegible] highly scattering materials, such [illegible] and com[illegible]sites. Matching pursuit is use[illegible] of BP to reduce the complexity. De[illegible] its itera[illegible] nature, the method is fast en[illegible] to [illegible] real-time implemented. The perfor[illegible] of [illegible] proposed method has been evaluated [illegible] both c[illegible]puter simulation and exp[illegible] r[illegible] [illegible] when the input SNR [illegible]NRin) [illegible] lowe[illegible] 0dB (the level of echoe[illegible] [illegible]rostructures is above the level of [illegible] echoes).

RETRACTED

2. Matching pursuit

Matching pursuit was introduced by Mallat and Zhang [13]. Let us suppose an approximation of the ultrasonic backscattered signals $x[n]$ as a linear expansion in terms of functions $g_i[n]$ chosen from an over-complete dictionary. Let H be a Hilbert space. We define the over-complete dictionary as a family $D = \{g_i;\ i = 0, 1, \ldots, L\}$ of vectors in H, such as $\|g_i\| = 1$.

The problem of choosing functions $g_i[n]$ that best approximate the analysed signal $x[n]$ is computationally very complex. Matching pursuit is an iterative algorithm that offers sub-optimal solutions for decomposing si[illegible] [illegible]erms of expansion functions chose[illegible] from a di[illegible]nary, where l^2 norm is used as [illegible] a[illegible]oximatio[illegible] metric because of its mathem[illegible]al co[illegible]ence. [illegible] When a well-designed dictio[illegible]y is [illegible] in [illegible]ing pursuit, the non-line[illegible] [illegible] the al[illegible]orithm leads to compact a[illegible] mode[illegible]

In each [illegible] of the i[illegible] procedure, vector $g_i[n]$ whi[illegible] the larges[illegible] product with the analysed signal i[illegible]sen. The contribution of this ve[illegible] then subt[illegible] from the signal and the [illegible]ocess is repeated o[illegible] the residual. At the *m*th i[illegible]ation the [illegible]idue is

$$r^m[n] = \begin{cases} x[n], & m = 0, \\ [illegible]^{m-1}[n] + \alpha_{i(m)} g_{i(m)}[n], & m \neq 0, \end{cases} \quad (1)$$

where $\alpha_{i(m)}$ is the weight associated to optimum atom $g_{i(m)}[n]$ at the *m*th iteration.

The weight α_i^m associated to each atom $g_i[n] \in D$ at the *m*th iteration is introduced to compute all the inner products with the residual $r^m[n]$:

$$\alpha_i^m = \frac{\langle r^m[n], g_i[n] \rangle}{\langle g_i[n], g_i[n] \rangle} = \frac{\langle r^m[n], g_i[n] \rangle}{\|g_i[n]\|^2} = \langle r^m[n], g_i[n] \rangle. \quad (2)$$

The optimum atom $g_{i(m)}[n]$ (and its weight $\alpha_{i(m)}$) at the *m*th iteration are obtained as follows:

$$g_{i(m)}[n] = \arg\min_{g_i \in D} \|r^{m+1}[n]\|^2 = \arg\max_{g_i \in D} |\alpha_i^m|^2 = \arg\max_{g_i \in D} |\alpha_i^m|. \quad (3)$$

The computation of correlations $\langle r^m[n], g_i[n] \rangle$ for all vectors $g_i[n]$ at each iteration implies a high computational effort, which can be substantially reduced using an updating procedure derived from Eq. (1). The correlation updating procedure [13] is performed as follows:

$$\langle r^{m+1}[n], g_i[n] \rangle = \langle r^m[n], g_i[n] \rangle - \alpha_{i(m)} \langle g_{i(m)}[n], g_i[n] \rangle. \quad (4)$$

An article in which the authors committed plagiarism: it will not be removed from ScienceDirect ever. Everybody who downloads it will see the reason for the retraction…

Signal Processing
Volume 86, Issue 5, May 2006, Pages 962-970

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Publication ethics – How it can end .....

theguardian

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Hungarian president resigns over doctorate plagiarism scandal

Pal Schmitt steps down after university revokes doctorate, saying Olympics thesis was mostly copied from two authors

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Associated Press in Budapest
guardian.co.uk, Monday 2 April 2012 13.29 BST

Article history

The Hungarian president, Pal Schmitt, who has announced his resignation. Photograph: Matej Divizna/EPA

The Hungarian president, Pal Schmitt, has announced he will resign after losing his doctorate in a plagiarism scandal.

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24 February 2011 Last updated at 11:38 GMT

German minister loses doctorate after plagiarism row

Germany's defence minister has been stripped of his university doctorate after he was found to have copied large parts of his work from others.

Mr Guttenberg failed to name sources for parts of his PhD thesis

Karl-Theodor zu Guttenberg, an aristocrat who lives in a Bavarian castle, admitted breaching standards but denied deliberately cheating.

Analysis revealed that more than half of his thesis had long sections lifted word-for-word from the work of others.

So far the German Chancellor, Angela Merkel, has stood by the minister.

The University of Bayreuth decided that Mr Guttenberg had "violated scientific duties to a considerable extent".

It deplored the fact that he had lifted sections of text without attribution.

Last week Mr Guttenberg said he would temporarily give up his PhD title while the university investigated the charges of plagiarism. He admitted that he had made "serious mistakes".

His thesis - Constitution and Constitutional Treaty: Constitutional Developments in the US and EU - was completed in 2006 and published in 2009.

Chancellor Merkel insisted on Monday that she was standing by her defence minister, who was seen as something of a rising star in her conservative coalition

Related Stories

Germany's Baron without a title

Plagiarism row minister drops PhD

German minister denies plagiarism

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Figure Manipulation – some things are allowed

As long as they don't obscure or eliminate info present in the original image

Must be disclosed in the figure legend

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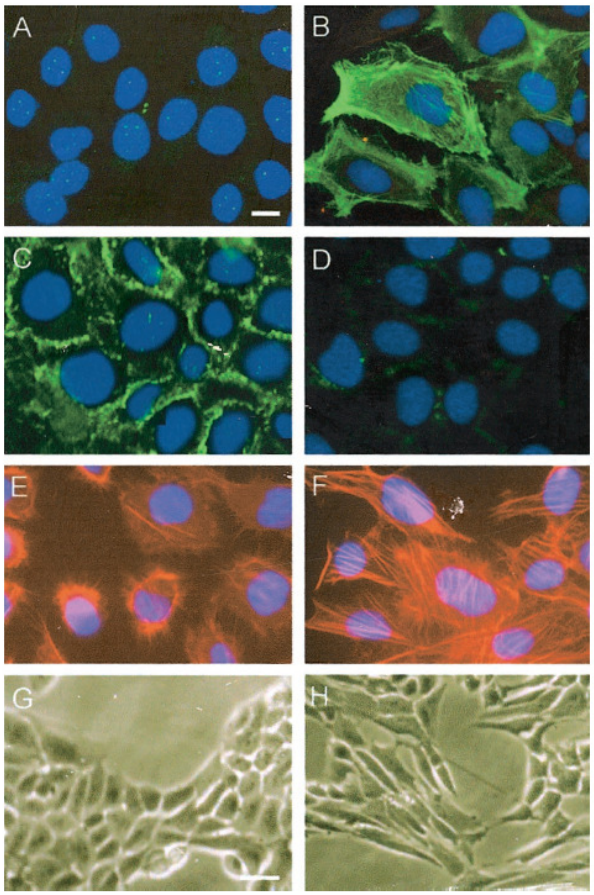
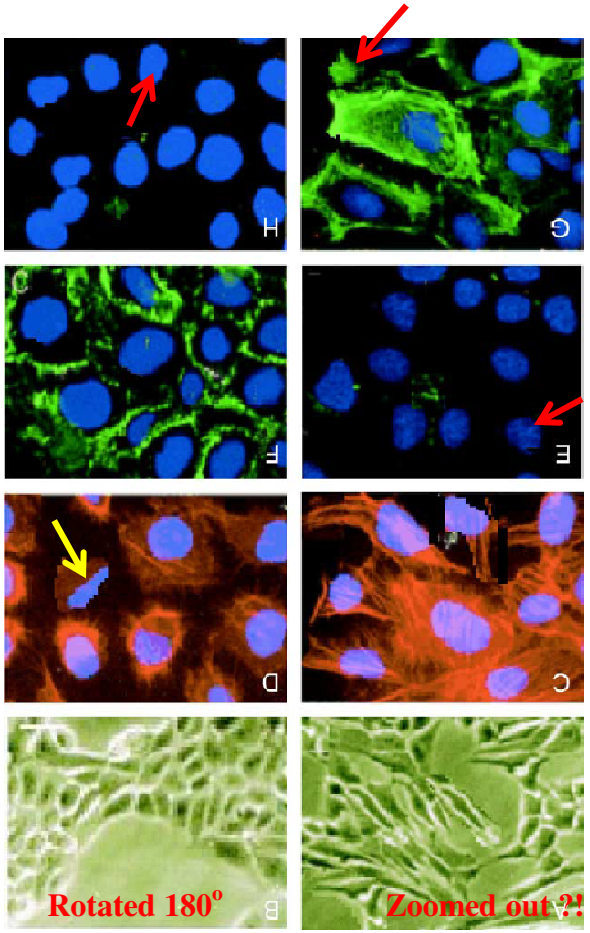
Figure Manipulation

Example - Different authors and reported experiments

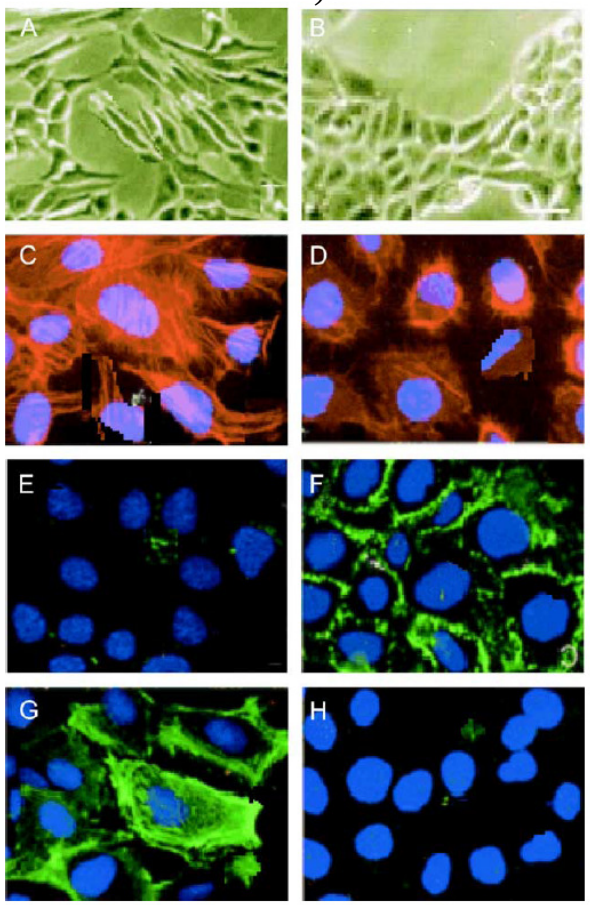
Am J Pathol, 2001



Images worked on, added to, rotated 180°, to become:



Life Sci, 2004



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References and Acknowledgements

- Guide for Authors of Elsevier journals.
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