How to Write Great Papers

From title to references
From submission to acceptance



Presented by: Anthony Newman, Publisher, Elsevier

Location / Date: University of Arizona

Tucson - 24 February 2015





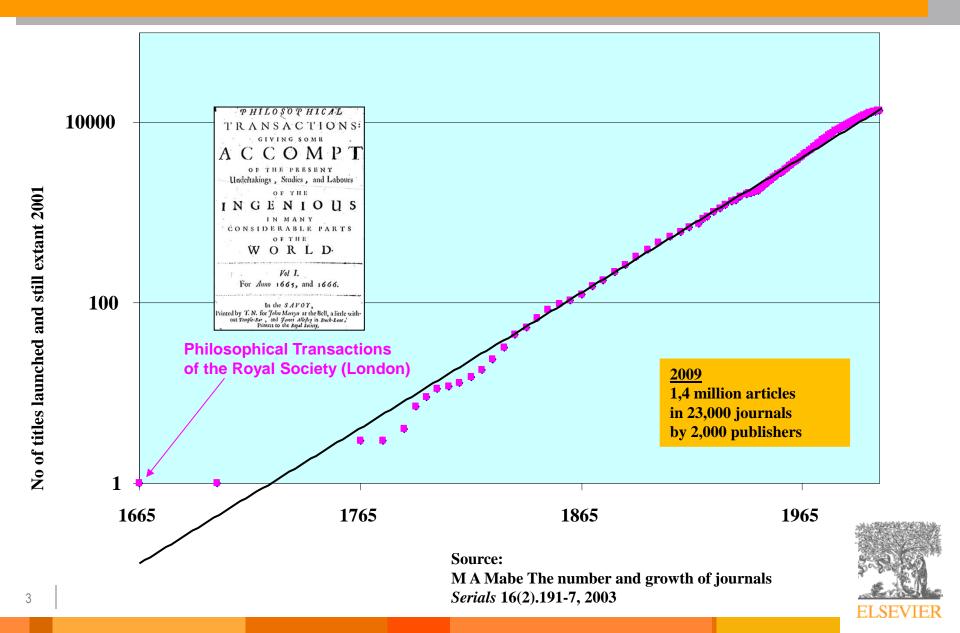
Workshop Outline

How to get Published

- Before you begin
- Select your audience
- The article structure
- The review and editorial process
- What not to do... (author responsibilities)



Peer -Reviewed Journal Growth 1665-2001



Elsevier Journal publishing volume

- 1,000 new editors per year
- 20 new journals per year
 - Organise editorial boards
 - Launch new specialist journals
 - 11 million articles now available
 - 11 million researchers
 - 5,000+ institutions
 - 180+ countries
 - 400 million+ downloads per year
 - 3 million print pages per year

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

Publish and disseminate

Archive and promote

ELSEVIER

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



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

• 2016: ?

Changing role of "journals" due to e-access

- Increased usage of articles
 - at lower cost per article
- Electronic submission
 - Increased manuscript inflow
- Experimentation with new publishing models
 - E.g. "author pays" models, "delayed open access", etc.





Open Access briefing



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 publish 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.



Tips for publishing Gold Open Access?

Find the right journal

Look for reputable journals

Collect key info

Check your funding body and institution's policies

Keep your AAM

See your journal's posting policy

Make your article OA

Select a license and pay an OA fee

Publish OA

Share the final version of your article!



Complying with new polices



Key funder developments:

Office of Science and Technology Policy (US)



Research Councils (UK) / Finch Report



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



CIHR / NSERC (Canada)
 Draft Tri-Agency Open Access Policy





Your personal reason for publishing



 However, editors, reviewers, and the research community don't consider these reasons when assessing your work.



Always keep in mind that ...

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



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



What is a strong manuscript?

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

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



How To Get Your Article Published

Before you start



Refine your search strategies

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



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."



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 (<u>www.journalmetrics.com</u>)
- h-Index

Find out more about the journals

- Who are the editors?
- Guide for authors

IF & SNIP & SJR





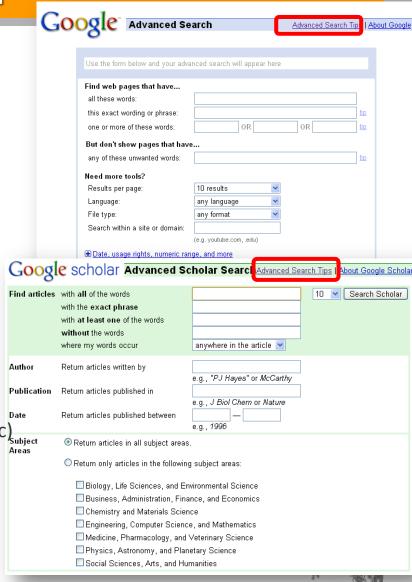




Use the advanced search options

- 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)

E.g. wind w/3 energy



Find out what's Hot (downloads)

ScienceDirect

www.sciencedirect.com



show my alerts

Sign up now! for the e-mail alerts
e-mail address

Request your free Top 25 certificate

Tell other people about this service

Support About the Top 25 Sitemap

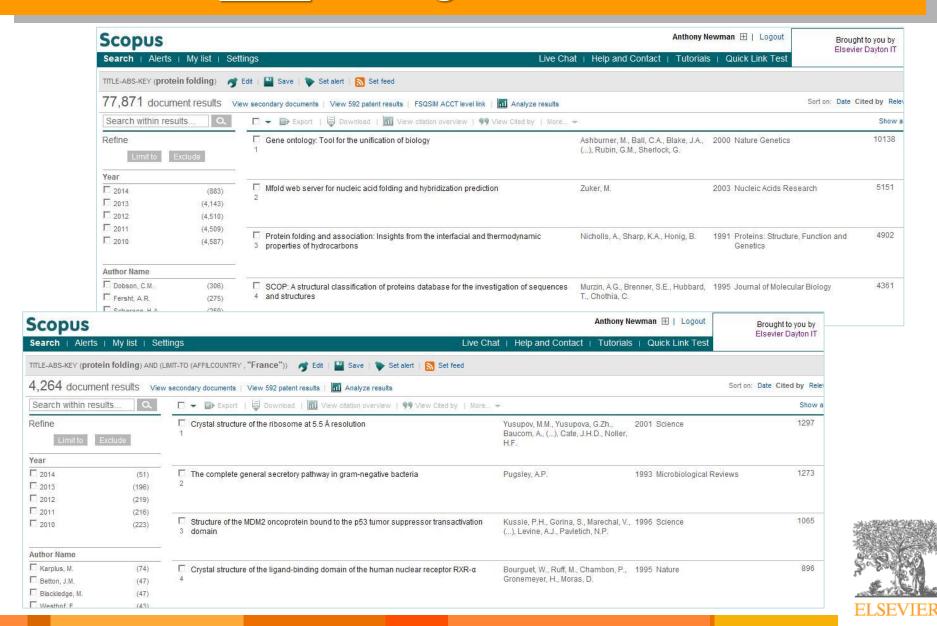
Download the ScienceDirect App today! Available for iPhone, iPad, Blackberry and Android devices. >>







Find out what is being cited and from where



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 <u>all</u> answers are "<u>yes</u>", then start preparations for your manuscript





What type of manuscript?

- Full articles/Original articles;
- Letters/Rapid Communications/Short communications;
- 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.



Select the best journal for submission

- Look at your references these will 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 <u>decision</u> or <u>publish</u> 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!)

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



Breaking Boundaries.

Biochemical

Pharmacology

Choose the right journal



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t Elsevier

t your view

BIOCHEMICAL PHARMACOLOGY

Editor-in-Chief: S.J. Enna

See editorial board for all editors information

Sign up for the Pharmacology Newsletters Sign up here!

BCP Special Issues: Published and Future issues

January 2008: Addictions Special Issue Edited by David Weinshenker

Description

Biochemical Pharmacology is an international journal devoted to publishing original work on the interaction of drugs and nontherapeutic xenobiotics with biological systems. While particular emphasis is placed on reporting findings that relate to the actions and metabolism of drugs and toxic substances at the biochemical and molecular levels, submissions in the areas of behavioral and physiological pharmacology and toxicology are also encouraged if they describe studies directed at defining mechanisms of action. All areas of the field are represented in the journal including, but not limited to, cancer chemotherapy, neuropharmacology, inflammation/immunopharmacology, antimicrobials, behavioral, respiratory, gastrointestinal, cardiovascular, and endocrine pharmacology and toxicology. Submissions relating to either pharmacodynamics or pharmacokinetics are considered. Reports based on experiments conducted with mixtures, plant or animal extracts will not be considered for publication unless the chemical structures and concentrations of all substances are known. Submissions to the journal must be in English.

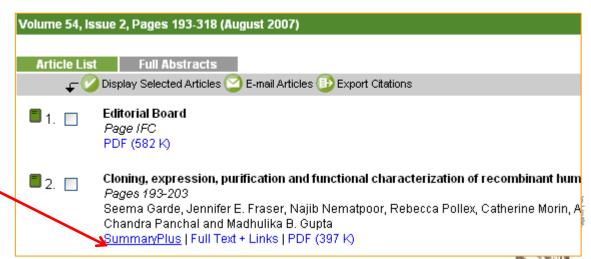
The journal publishes the following types of reports:

- (1) Full-length Research Papers. These contain the results of original research on an issue of relevance to the field of pharmacology.
- (2) Commentaries. These are commissioned articles that provide the author's view on a selected topic of

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)

SummaryPlus |



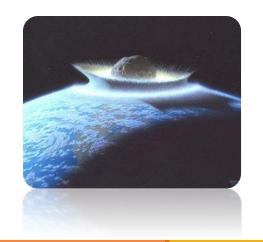


What is the Impact Factor (IF)?

Impact Factor

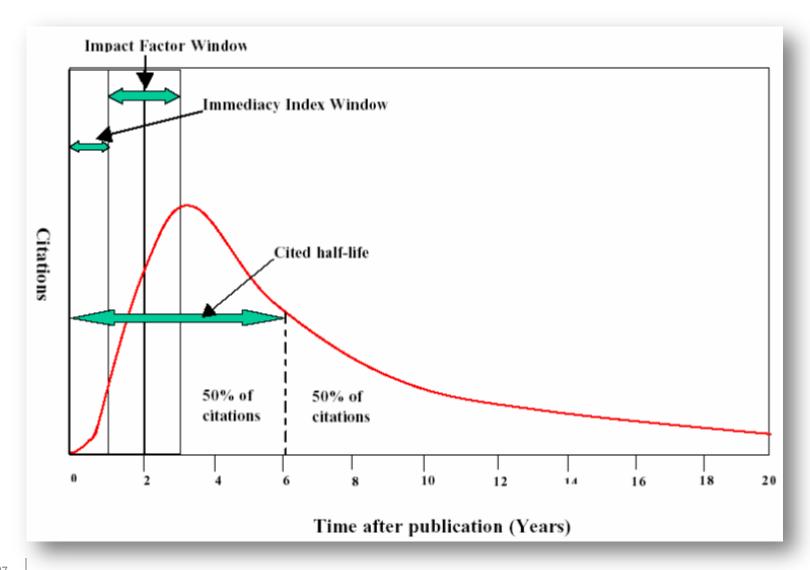
[the average annual number of citations per article published]

- 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. <u>600 citations</u> = 2.000
 150 + 150 articles



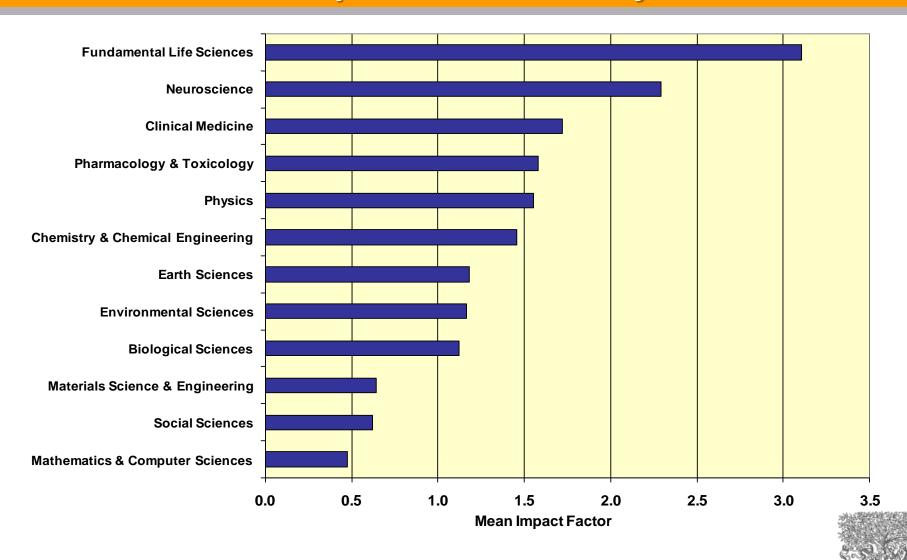


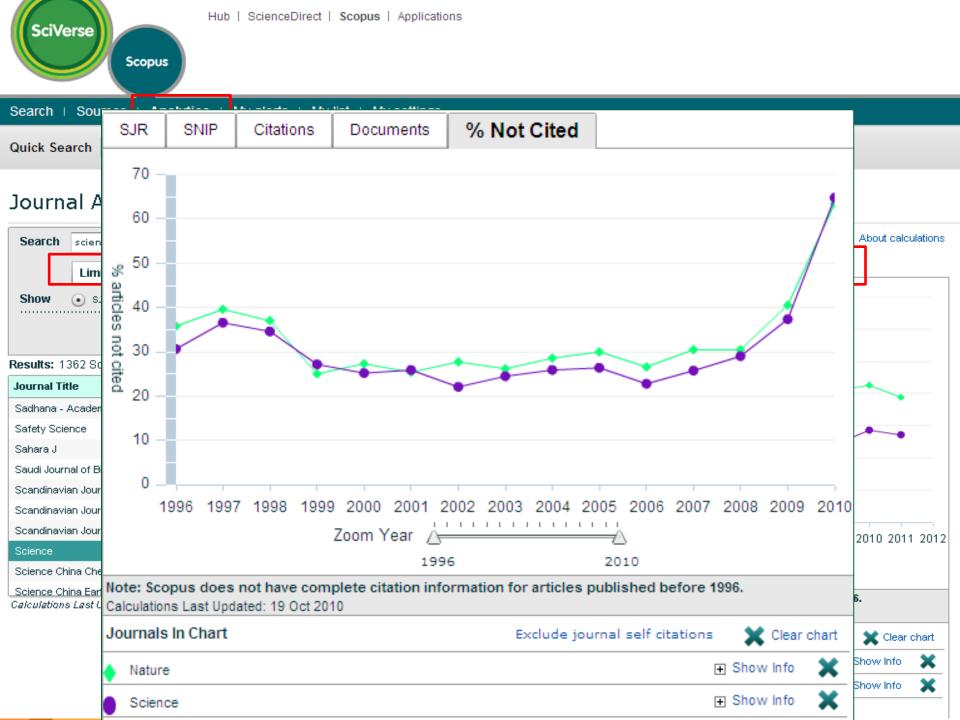
Impact Factor and other bibliometric parameters





Influences on Impact Factors: Subject Area





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



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.





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



Guide for authors

Submit your paper

Track your paper

Order journal

View articles

Abstracting and indexing

Editorial board

Browse journals > Journal of Molecular Biology > Guide for authors

Guide for Authors



Author information pack

INTRODUCTION

- · Editorial policy
- . Sharing of reagents and data
- · Sequence data
- · Structural data
- NMR assignments
- · Cell lines
- · Types of paper
- Contact details for submission.

BEFORE YOU BEGIN

- · Ethics in publishing
- · Conflict of interest
- · Submission declaration
- . Changes to authorship
- · Copyright
- · Retained author rights
- · Funding body agreements and policies

- Open access
- · Language (usage and editing services)
- Submission

PREPARATION

- · Use of wordprocessing software
- · Article structure
- Subdivision
- · Essential title page information
- Abstract
- · Graphical abstract
- · Highlights
- Keywords
- Abbreviations
- Introduction
- · Results
- Discussion
- · Materials and methods

- · Database linking
- Accession numbers
- Glossarv
- Acknowledgements
- Footnotes
- Artwork
- · Color artwork
- Tables
- References
- Journal abbreviations source
- · Supplemental data
- · Additional information

AFTER ACCEPTANCE

- · Use of the Digital Object Identifier
- · Proofs
- · Offprints

AUTHOR INQUIRIES





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
 - Sometimes even to the same journal!
 - Paul Haddad, Editor, Journal of Chromatography A



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 <u>trying</u> to understand what the author is trying to say. Besides, I really want to send a message that they can't <u>submit garbage</u> 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 <u>I don't waste my time</u> 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 <u>Guide for Authors</u> of the target journal for language specifications



Scientific Language – Sentences

- Write direct and <u>short</u> 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."



Who is allowed to be an Author?

- Policies regarding authorship can vary
- One example: the International Committee of Medical Journal Editors ("Vancouver Group") declared that an author must:
 - substantially contribute to conception and design, or acquisition of data, or analysis and interpretation of data;
 - 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. <u>ALL three</u> conditions must be fulfilled to be an author!

All others would qualify as "Acknowledged Individuals"



Authorship - Order & 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



Acknowledged Individuals

Recognize those who helped in the research, but do not qualify as authors (you want them to help you again, don't you?)

Include individuals who have assisted you in your study:

Advisors

Financial supporters

Proofreaders

Typists

Suppliers who may have given materials



Author names: common problems

Different Spellings

- Järvinen / Jaervinen / Jarvinen
- Lueßen / Lueßen / Luessen
- van Harten / Vanharten / Van
- First/Last Names
 - Surname and first name, not initials
 - Double surnames can cause problems (e.g. Spanish)
 - Asian names often difficult for Europeans or Americans
- What in case of marriage/divorce?

Be consistent!

If you are not consistent, how can others be? Correct whenever you see errors in databases



ORCID: Author Profile 2.0



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

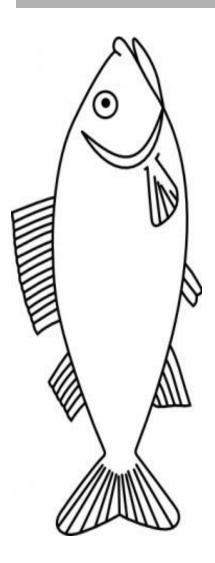
ORCID (Open Researcher and Contributor ID) is excited to announce the launch of its Registry (http://orcid.org), where researchers can distinguish themselves by creating a unique personal identifier.

"ORCID addresses a problem shared by individuals and organizations across the research community: reliably connecting Launche Garl Nitl 20 at 2 rs, "said 160 eaa Sie 10 ve Geor of...

Read more >



General Structure of a Research Article



- Title
- Abstract
- Keywords
- Main text (IMRAD)
 - Introduction
 - Methods
 - Results
 - And
 - Discussions
- Conclusion
- Acknowledgement
- References
- Supplementary Data

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

Journal space is not unlimited.

Your reader's time is scarce.

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



The process of writing – building the article





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 <u>short, catchy titles</u> are often better cited
- Do not contain rarely-used abbreviations
- Attract readers Remember: readers are the potential authors who will cite your article



Title: Examples

| Original Title | Revised | Remarks |
|--|---|--|
| Preliminary observations on the effect of Zn element on anticorrosion of zinc plating layer | Effect of Zn on anticorrosion of zinc plating layer | Long title distracts readers. Remove all redundancies such as "observations on", "the nature of", etc. |
| Action of antibiotics on bacteria | Inhibition of growth of mycobacterium tuberculosis by streptomycin | Titles should be specific. Think to yourself: "How will I search for this piece of information?" when you design the title. |
| Fabrication of carbon/CdS coaxial nanofibers displaying optical and electrical properties via electrospinning carbon | Electrospinning of carbon/CdS coaxial nanofibers with optical and electrical properties | "English needs help. The title is nonsense. All materials have properties of all varieties. You could examine my hair for its electrical and optical properties! You MUST be specific. I haven't read the paper but I suspect there is something special about these properties, otherwise why would you be reporting them?" — the Editor-in-chief |

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



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. If the journal offers you a graphical abstract too – take it!
- A clear abstract will strongly influence if your work is considered further

Graphite intercalation compounds (GICs) of composition $CxN(SO2CF3)2 \cdot \delta F$ 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

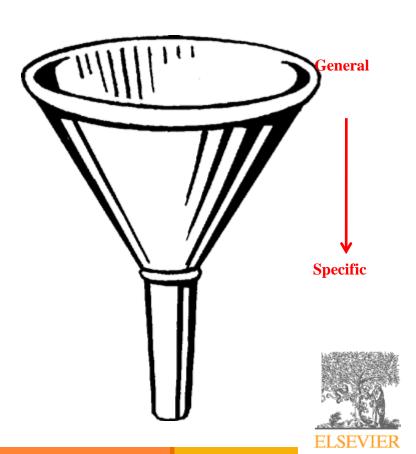
What are the main findings

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?



Pay attention to the following

- Before you present your new data, put them into perspective first
- Be brief, it is <u>not</u> 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", etc.
- Cite only <u>relevant</u> references
 - Otherwise the editor and the reviewer may think you don't have a clue where you are writing about



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
- Present proper control experiments
- Avoid adding comments and discussion
- Write in the <u>past</u> 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 descriptions, and may even recommend rejection



Results – what have you found?

- The following should be included
 - the main findings
 - Thus not all findings
 - Findings from experiments described in the Methods section
 - Report findings in the <u>past</u> tense
 - Highlight findings that differ from findings in previous publications, and unexpected findings
 - Results of the statistical analysis



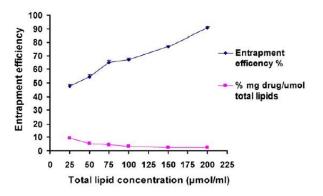
Results – Figures and tables

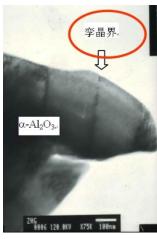
- Illustrations are critical, because
 - Figures and tables are the most efficient way to present results
 - Results are the driving force of the publication
 - Captions and legends must be detailed enough to make figures and tables self-explanatory
 - No duplication of results described in text or other illustrations

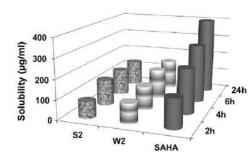
"One Picture is Worth a Thousand Words" Sue Hanauer (1968)

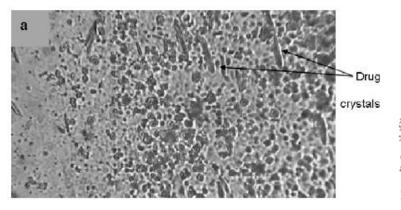
Results – Appearance counts!

- 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.
- Color must be visible and distinguishable when printed in black & white.
- Do not include long boring tables!











Discussion – what do the results mean?

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

Check for the following:

- How 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?
- Your discussion should be in the <u>present</u> tense
- 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



Conclusions

- Present global and specific conclusions
- Indicate uses and extensions if appropriate, using <u>future</u> tense
- Suggest future experiments and indicate whether they are underway (claim an area if possible)
- Do not summarize the paper as the abstract is for that purpose
- Avoid judgments about impact others can do this about your paper, you should not



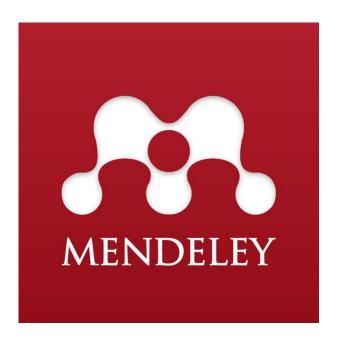
References: get them right!

- Please adhere to the Guide for Authors of the journal
- It is <u>your</u> 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



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!









en.wikipedia.org/wiki/Comparison_of_reference_management_software



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,
- Not part of the printed article
 - Will be available online with the published paper
- Must relate to, and support, the article



Cover Le

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

Your d

January 1, 2008

Final approval from all authors

Submitt

Dear Professor Schmidt,

Mention to the jo Enclosed with this letter you will find en electronic submission of a manual entitled "Mechano-sorptive creep under compressive loading - a microme 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 network level that is able to capture the experimentally observed behaviour. In particular, th difference between mechano-sorptive creep in tension and compression is analysed John Smith is a PhD-student who within a year will present his doctoral thesis. The present paper will be a part of that thesis.

Note sp conflicts

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

Explanation of importance of research

- 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.

Suggested reviewers

ely yours,



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.



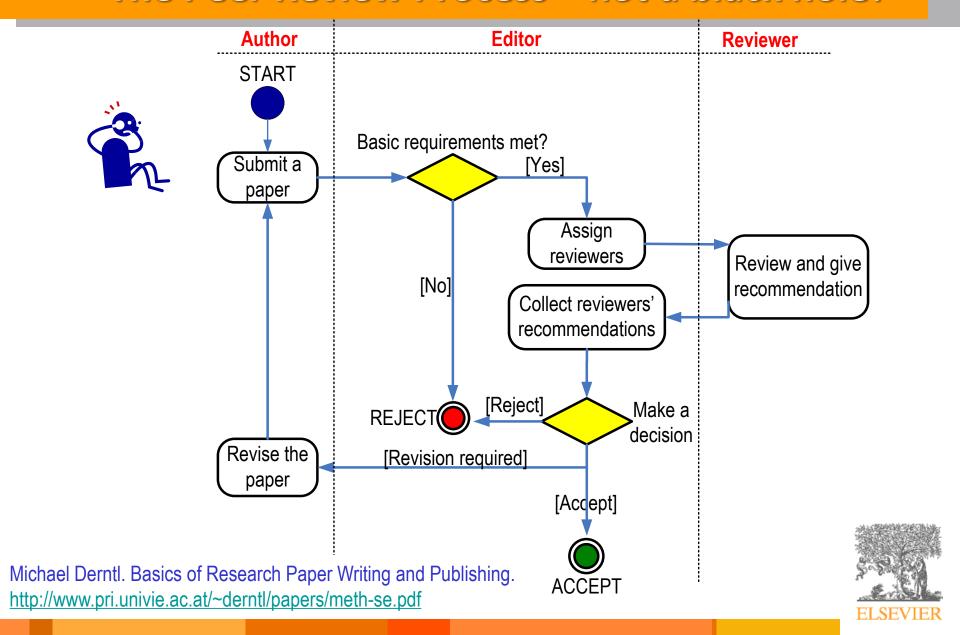
Do everything to make your submission a success

- 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. Edit your manuscript again. Most papers need several evolutions.
 - 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. Ensure all co-authors approve version to be submitted.

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



The Peer Review Process – not a black hole!

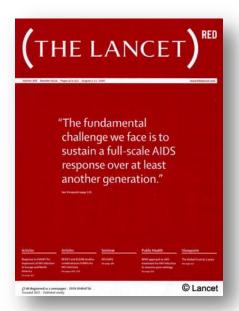


Initial Editorial Review or Desk Reject

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

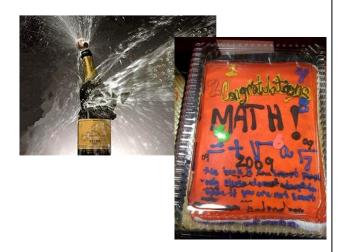




First Decision: "Accepted" or "Rejected"

Accepted

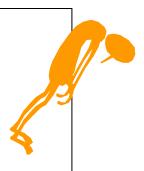
Very rare, but it happens



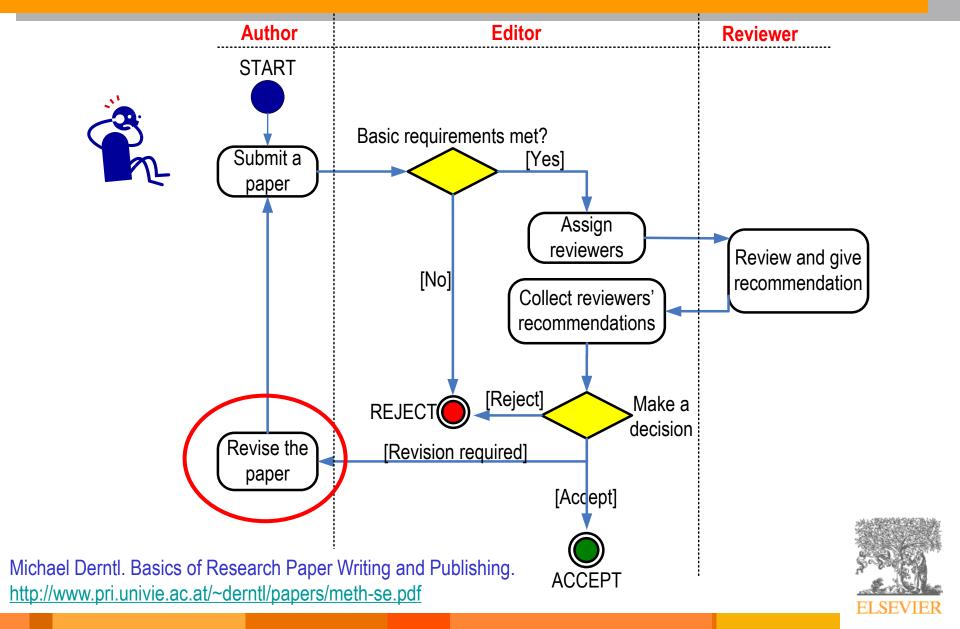
- Congratulations!
 - Cake for the department
 - Now wait for page proofs and then for your article to be online and in print

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
 - They may review your manuscript for the other journal too!
 - Read the Guide for Authors of the new journal, again and again.



The Peer Review Process – revisions



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!



Manuscript Revision

Prepare a detailed Response Letter

- Copy-paste <u>each</u> reviewer comment, and type your response below it
- State specifically which changes you have made to the manuscript
 - Include page/line numbers if required.
 - No general statements like "Comment accepted, and Discussion changed accordingly."
- Provide a scientific response to comments to accept,
- or a convincing, solid and <u>polite</u> 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 doing the research

It took you weeks to write the manuscript......



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

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?

- Attention to details
- Check and double check your work
- Consider the reviewers' comments
- English must be as good as possible
- Presentation is important
- Take your time with revision
- Acknowledge those who have helped you
- New, original and previously unpublished
- **C**ritically evaluate your own manuscript
- Ethical rules must be obeyed

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



Responsibilities

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



Ethics Issues in Publishing

Scientific misconduct

Falsification of results

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



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



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

"Is to 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

As scientists we all have to always be on guard against accidental research bias around the area of which experimental results we report and discuss – especially if they do not fit with what we would have wished to find!



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.
- Plagiarism may result in academic charges, but will certainly cause rejection of your paper.
- Plagiarism will hurt your reputation in the scientific community.



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 in another journal a previously published paper.
 - Published studies <u>do not need to be repeated</u> 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 <u>full and prominent disclosure of its original source</u> 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



Plagiarism Detection Tools

Elsevier is participating in 2 plagiarism detection schemes:

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



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

In addition, the more traditional approach is also working:

- Editors and reviewers
- Your colleagues
- Other whistleblowers





Publication ethics – Self-plagiarism

2003

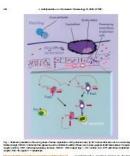




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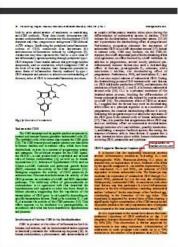
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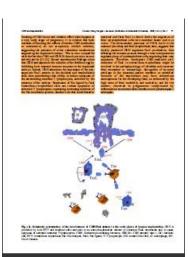
2004

















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RETRACTED: Matching pursuit-based approach t



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 article algorithm for SNR improvement in ultrasonic NDT", *Independent Nonde International*, volume 38 (2005) 453 – 458 authored by N. T. L. T. J.

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 sigmal-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 secent technique for decomposing a signal into an optimal superposition of elements in an overcomplete waveform dictionary. This technique and some other related techniques have been successfully applied to denoising ultrasonic signals og taminated with grain noise in highly scatteri materials [11,12], as an alternative to the W technique, the computational cost of algorithm being the main drawback

In this paper, we propose a cold morning pursuit-based signal processing methods for improving SNR in ultrascol. NDT of highly scattering materials, such a set and coen seites. Matching pussuit is used instead of BP to reduce the complexity. Descript its item to mature, the method is fast earligh to be real-time implemented. The performance of the proposed method has been evaluated us to doth out puter simulation and exposure all rocks, i.e. when the input SNR (NRin) is lower can 0dB (the level of echoel catter increases).

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 $g_x[n]$ chosen from an over-complete dictionary. Let H be a Hilbert space. We define the over-complete dictionary as a family $D = \{g; i = 0, 1, ..., L\}$ 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 persuit is an iterative algorithm that offers sub-optimal solutions for decomposing states betterms of expansion functions chosen from a discountry, where l' norm is used as the approximation metric because of its mathematical confinience. When a well-designed dictionery is used in contain pursuit, the non-linear enture of the algorithm leads to compact advisive that model?

In each set of the interior procedure, vector $g_i[n]$ which give the largest over product with the analysed signal is cosen. The contribution of this vector when subtracted from the signal and the process is repeated on the residual. At the with iteration the biddue is

$$r^{m}[n]$$

$$\begin{cases}
x[a] + \alpha_{\text{div}(\hat{\mathbf{x}}) \mapsto \hat{\mathbf{x}}}[n], & m \neq 0, \\
\end{array}$$
(1)

where $\alpha_{(m)}$ is the weight associated to optimum atom $q_{(m)}[n]$ at the with iteration.

The weight q^{μ} associated to each atom $g_{\nu}[n] \in D$ at the with iteration is introduced to compute all the inner products with the residual $r^{\mu}[n]$:

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

= $p^m[n], g[n]).$ (6)

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

$$g_{Am}[n] = \arg\min_{\mathbf{q} \in \mathcal{D}} \|\mathbf{r}^{m+1}[\mathbf{q}]\|^2$$

 $= \arg\max_{\mathbf{q}} \|\mathbf{a}_i^m\|^2 = \arg\max_{\mathbf{q}} \|\mathbf{a}_i^m\|.$ (3)

The computation of correlations $(r^{\mu}[n], g, [n])$ for all vectors g[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:

$$(r^{m+1}[n], g_i[n]) = (r^m[n], g_i[n])$$

 $-\alpha_{(m)}(g_{imi}[n], g_i[n]).$ (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...

Publication ethics – How it can end



BBC NEWS EUROPE Home UK Africa Asia-Pac Europe Latin America Mid-East South Asia US & Canada Business Hea

24 February 2011 Last updated at 11:38 GMT

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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.

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.



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

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



Figure Manipulation – <u>some</u> things <u>are</u> allowed

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



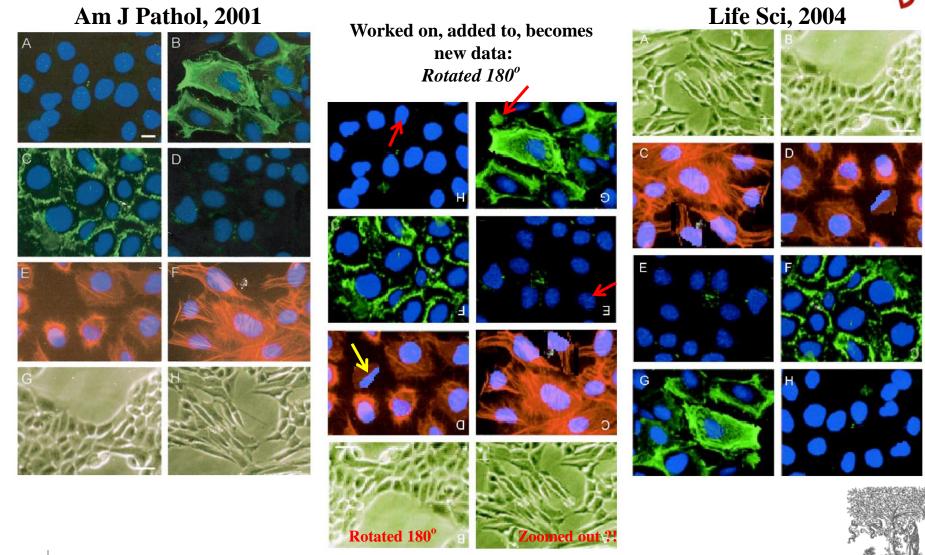
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Figure Manipulation

Example - Different authors and reported experiments



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Further reading for you

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Questions? Slide set & certificate of attendance



Or for questions later, please

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