Elsevier Author Workshop
Hohai University, October 22, 2008

How to Write a Good Paper for a Top International Journal

Professor Joseph Hun-wei Lee
The University of Hong Kong
Editor, Journal of Hydro-environment Research

Outline

- Current status of Chinese articles
- Why do engineers/scientists publish?
- How to write a good manuscript for an international journal
  - Preparations before starting
  - Construction of an article
  - Technical details
- Revision, and response to reviewers
- Ethical issues
- Conclusion: what gets you accepted?

Cultural reflections

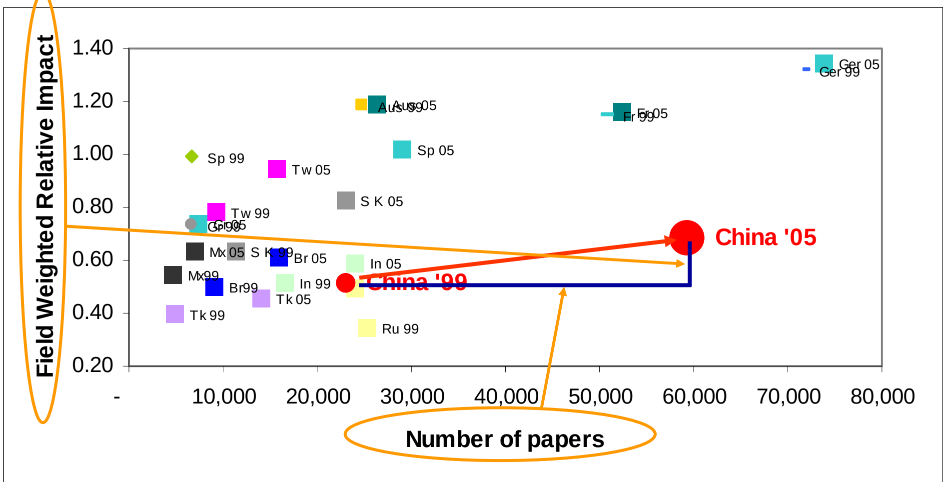
"China's economy is booming and yet its scientific output isn't. " Mu-ming Poo explains why.

"Now, given the soundness of the Chinese economy, the steady increase in the government's funding for basic and applied research, and the general appreciation of the importance of scientific development, the time has come for China to make its presence felt on the international research stage."

Commentary – *Nature*, Vol.428, March 2004

Current status of Chinese articles

- High quantity – exponential growth since 1999
- Low quality – China is at 70% of the world average



2008華人四地世界大學
科研論文質量評比分析

黃慕萱 國立臺灣大學圖書資訊學系教授

World ranking of Scientific Quality of Publications of Universities in Greater China by Higher Education Evaluation and Accrediation Centre (2008 HEEACT Ranking, Taiwan)

Ranking purely based on citations and scientific impact over the past 10 years

華人四地大學進入2008年世界大學不分領域科研論文質量評比之表現

Ranking

	地區	校名	世界總分	世界排名	參考排名
Taiwan	臺灣	國立臺灣大學	17.23	141（+44）	*114
		國立成功大學	10.49	328（+32）	204
		國立清華大學	9.46	366（+63）	260
		國立交通大學	7.82	463（+8）	327
		國立陽明大學	7.66	475	385
Mainland	大陸	北京清華大學	16.93	152（+98）	306
		北京大學	16.45	164（+77）	345
		浙江大學	13.88	220（+84）	367
		中國科技大學	13.10	244（+74）	131
		上海交通大學	11.70	289（+80）	365
		南京大學	11.66	292（+105）	309
		復旦大學	11.33	305（+31）	356
		大陸中山大學	9.69	358（+123）	
		南開大學	8.95	389	417
		吉林大學	8.67	406（+81）	-
		山東大學	8.08	443	308
		四川大學	7.66	475	-
Hong Kong		武漢大學	7.36	498	-
	香港	香港大學	15.92	173（+9）	189
		香港中文大學	12.09	275（-45）	240
		香港科技大學	10.86	320（+7）	223
		香港城市大學	8.84	397（-5）	286
Singapore		香港理工大學	7.97	455（+14）	309
	新加坡	新加坡國立大學	21.23	86（+10）	64
		南洋理工大學	11.61	294（+95）	255

Overall ranking shows that all universities in Greater China rank outside of the top 100 universities in the world in terms of scientific impact. Ranking in individual fields (like engineering and science) tend to be better

Chinese articles are accepted much less than American ones

	2005		2006		2007(Jan – Jun)	
	% of submissions *	Rate of acceptance	% of submissions	Rate of acceptance	% of submissions	Rate of acceptance
China	14%	24%	15%	26%	15%	24%
US	20%	58%	16%	55%	17%	51%
Total		42%		40%		38%

Selection of Elsevier Editorial Outflow Statistics

* Number of submissions from the country / Total number of submissions Elsevier received.

So what is the problem?

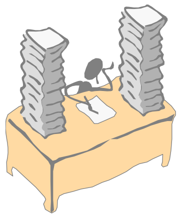
"A great deal of excellent research is submitted from China."

But,

- "I have encountered the following serious issues…"
  - Multiple submissions
  - Submission of a paper already published in Chinese
  - Plagiarism (especially of small parts of a paper)"
- "The following problems appear much too frequently"
  - 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*

And who has to deal with it?



Editors and reviewers:

- the **most precious resource** of a journal!
- practicing scientists, even leaders in their fields
- busy people doing their own research, writing and teaching, and working for journals in their spare time, **to contribute to science and engineering**
- Editors may receive a small payment, but reviewers are **UNPAID**

These are scientists; just like you!
Make their life easy by preparing well
This workshop will tell you how

Bottom Line

- English is the universal language of scientific communication.
- Unless a scientific or technical paper is written properly, it cannot be assessed properly.
- Writing a scientific paper is an intense intellectual activity. The writing process sharpens your own thinking.

The Editor asks:

- What did I learn from reading this paper?
- Is it worth knowing?
- Will this paper have an impact on the field?
  - ISI journal citations
  - Citations in professional literature (e.g. benchmarking technical reports, textbooks)
  - Professional application (e.g. engineering design, software, patents)

- Current status of Chinese articles
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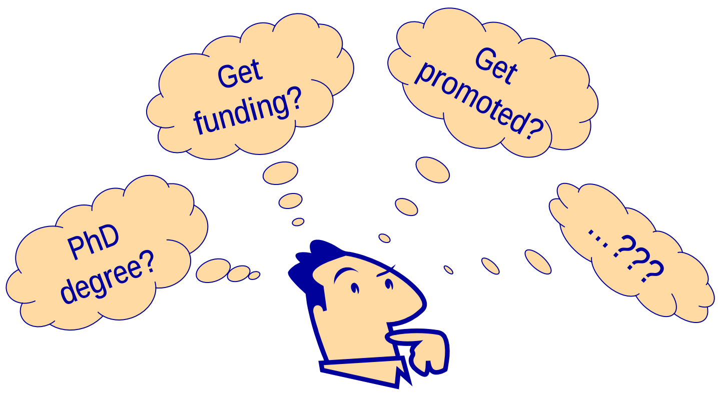
Your personal reasons for publishing



- However, editors, reviewers, and the research community will not consider these reasons when assessing your work.

Why should scientists publish?

- *Scientists publish to **share** with the scientific COMMUNITY something that **advances, not repeats, knowledge and understanding** in a certain field.*
  - To present new, original results or methods
  - To rationalize published results
  - To present a review of the field or to summarize a particular topic

Journal publishers do not want zero-cited articles

- Editors now regularly analyze citations per article.

  "The statistic that 27% of our papers were not cited in 5 years was disconcerting. It certainly indicates that it is important to maintain high standards when accepting papers... nothing would have been lost except the CV's of those authors would have been shorter…"

  – Marv Bauer, Editor, *Remote Sensing of Environment*

- Articles are increasingly checked on originality and relevance.

- Current status of Chinese articles
- Why do scientists publish?
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  - Preparations before starting
  - Construction of an article
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- How to write a good manuscript for an international journal
  - Preparations before starting
  - Construction of an article
  - Technical details

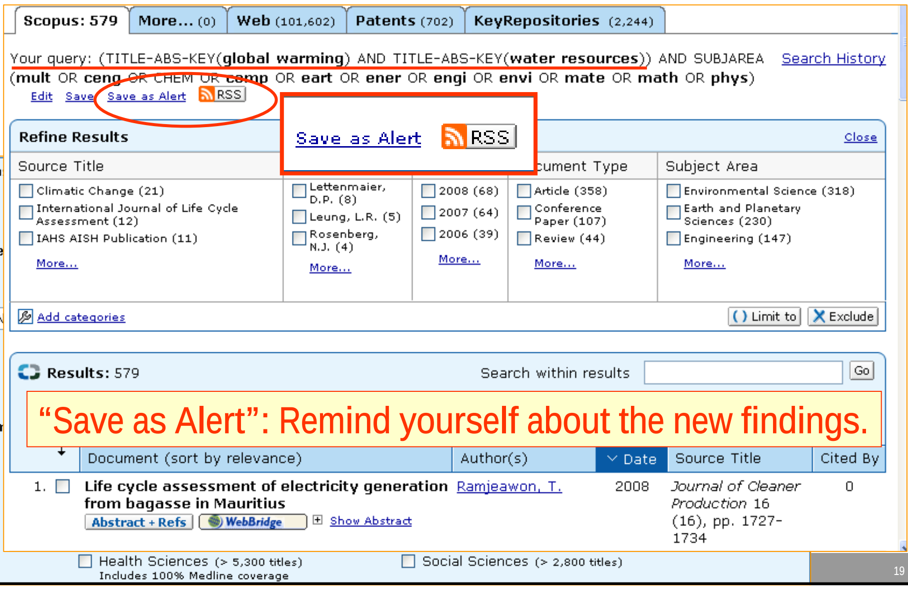
1. Check the originality of your idea

- Have you done something new and interesting?
- Is there anything challenging in your work?
- Is the work directly related to a current hot topic?
- Have you provided solutions to any difficult problems?

If all answers are “yes”, then start preparing your manuscript.

TRACK the latest results regularly in your field. New and relevant articles get published all the time.

SCOPUS



2. Decide the type of your 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.

3. Who is your audience?

- Do you want to reach specialists, multidisciplinary researchers, a general audience? You will need to adjust information and writing style accordingly
- Journals, even in similar subjects, reach readers with different background
- Each journal has its own style; read other articles to see what gets accepted
- Is readership worldwide or local?

4. Choose the right journal

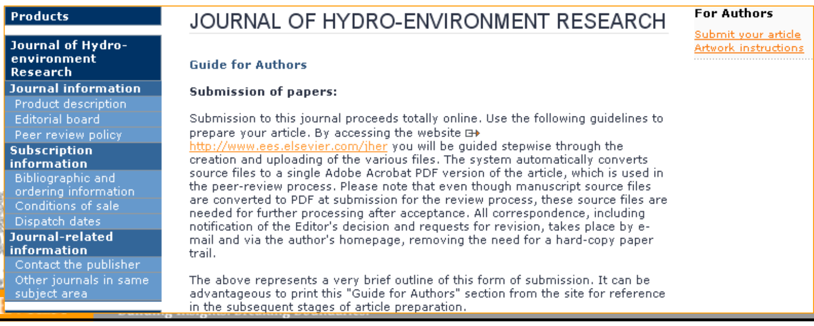
- Investigate all candidate journals to find out:
  - Aims and scope
  - Types of articles
  - Readership
  - Current hot topics (go through recent abstracts)

4. Choose the right journal

- You must get help from your supervisor or colleagues. Chase them if necessary.
- Articles in your references will likely lead you to the right journal.
- DO NOT gamble by scattering your manuscript to many journals. Only submit once! International ethics standards prohibit multiple/simultaneous submissions, and editors DO find out!

5. Read the ‘Guide for Authors’! Again and again!

- Apply the Guide for Authors to your manuscript, even to the first draft (text layout, paper citation, nomenclature, figures and table, etc.). It will save your time, and the editor’s.
- All editors hate wasting time on poorly prepared manuscripts. It is a sign of disrespect.


Products
Journal of Hydro-environment Research
Journal information
Product description
Editorial board
Peer review policy
Subscription information
Bibliographic and ordering information
Conditions of sale
Dispatch dates
Journal-related information
Contact the publisher
Other journals in same subject area

JOURNAL OF HYDRO-ENVIRONMENT RESEARCH

Guide for Authors

Submission of papers:

Submission to this journal proceeds totally online. Use the following guidelines to prepare your article. By accessing the website http://www.ees.elsevier.com/jher you will be guided stepwise through the creation and uploading of the various files. The system automatically converts source files to a single Adobe Acrobat PDF version of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to PDF at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor's decision and requests for revision, takes place by e-mail and via the author's homepage, removing the need for a hard-copy paper trail.

The above represents a very brief outline of this form of submission. It can be advantageous to print this "Guide for Authors" section from the site for reference in the subsequent stages of article preparation.

For Authors
Submit your article
Artwork instructions

- How to write a good manuscript for an international journal
  - Preparations before starting
  - Construction of an article
  - Technical details

Content vs. presentation

- Content is essential
  - Contains a clear, useful, and exciting scientific message
- Presentation is critical
  - Conveys the authors' thoughts in a logical manner such that the reader arrives at the same conclusions as the author
  - Constructed in the format that best showcases the authors' material
  - Written in a style that transmits the message clearly

A good manuscript leads readers to scientific significance immediately.

The general structure of a full article

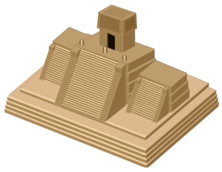
- Title
- Authors
- Abstract
- Keywords

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

- Main text (IMRAD)
  - Introduction
  - Methods
  - Results
  - And
  - Discussion (Conclusions)

Each has a distinct function.

- Acknowledgements
- References
- Supplementary material



- The progression of the thematic scope of a paper: general → particular → general
- However, we often write in the following order:
  - Figures and tables
  - Methods, Results and Discussion
  - Conclusions and Introduction
  - Abstract and title

1. Title

- A good title should contain the fewest possible words that adequately describe the contents of a paper. Keep your title short!
- Effective titles
  - Identify the main issue of the paper
  - Begin with the subject of the paper
  - Are accurate, unambiguous, specific, and complete
  - Do not contain infrequently-used abbreviations
  - Attract readers

Journal of Hydro-environment Research
Volume 2, Issue 1, September 2008, Pages 3-18

Article | Figures/Tables | References | PDF (787 K)

doi:10.1016/j.jher.2008.04.001

the main issue

Stratified flow through outlets

Specific

Jiahua Fan[a]

[a]China Institute of Water Resources and Hydropower Research, Beijing, China
Received 31 August 2007; revised 2 April 2008; accepted 2 April 2008. Available online 17 April 2008.

The title honestly reflects the subject matter of the paper.

Abstract

Experimental and theoretical studies of stratified flow through ... aspiration, withdrawal layer thickness, and outflow concentration. First, a new non-dimensional criterion for limiting height of aspiration is proposed. It is found that this non-dimensional criterion changes only slightly for different kinds of selective withdrawal, including two-layer flow and linearly stratified flow through outlets at different levels. Therefore, if the salinity of density current and the outflow discharge are known, the limiting height of aspiration or the withdrawal layer thickness can be estimated. Second, characteristics of the outflow concentration of turbid density currents through outlets are studied. Based on the field observations in Sanmenxia Reservoir and Guanting Reservoir in China, as well as a number of laboratory experimental data from outlets in vertical walls and bottom outlets, a simplified model is developed to analyze the empirical relationship between outflow concentration and several critical parameters including outflow discharge, inflow sediment concentration, interface elevation, and outlet elevation. These research findings are readily applicable for outlet design, especially in sediment-laden waters.

Keywords: Stratified flow through outlets; Turbid density current; Withdrawal layer thickness; Limiting height of aspiration; Outflow concentration

2. Authors and Affiliations: Keep your name and affiliation consistent

Ex1. 欧阳钟灿

Standard:

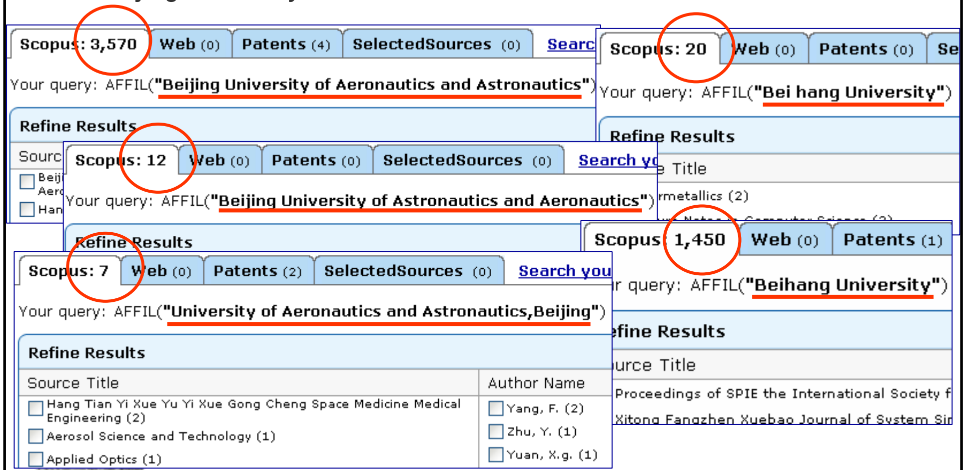
- Ouyang Zhongcan (Ouyang Z.),
  GB/T 16159-1996. 汉语拼音正词法基本规则
- OUYANG Zhong-can (Ouyang Z.C.),
  中国学术期刊(光盘版)检索与评价数据规范

Following are also found in literature: Ou-yang Zhong-can, Ouyang Zhong-can, Ou-Yang Zhongcan, Ouyang, Z.C, Zhongcan Ouyang, Zhong-can Ou-Yang, ……

Indicate your family name and given name clearly.

Alternative spellings lead to online confusion

Ex2. Beijing University of Aeronautics and Astronautics北京航空航天大学



3. The abstract: the advertisement of your article

A good abstract:

- Is precise and honest
- Can stand alone
- Uses no technical jargon
- Is brief and specific
- Cites no references

The quality of an abstract will strongly influence the editor's decision

4. Keywords: Used for indexing

- Check the Guide for Authors! (Number, label, definition, thesaurus, range, and other special requests)
- Avoid words with a broad meaning.

"…Words selected should reflect the essential topics of the article... Do not select "soil". "

– Guide for Authors, *Soil Biology & Biochemistry*

- Only abbreviations firmly established in the field are eligible.

e.g., DNA (life sciences), FFT (signal processing), SEM (material engineering), etc.

Article | Figures/Tables | References | PDF (2389 K)

doi:10.1016/j.jher.2008.01.002 Cite or Link Using DOI

Assessment of global warming impacts on water resources and ecology of a river basin in Japan

Toshiharu Kojiri[a], , Toshio Hamaguchi[a, 1] and Mariko Ode[b, 2]

[a]Water Resources Research Center, Disaster Prevention Research Institute, Kyoto University, Japan [b]The Structure Planning Institute, 4-38-13, Nakano-ku Hon-cho, Tokyo 164-0012, Japan
Received 4 September 2007; revised 18 January 2008; accepted 21 January 2008. Available online 10 February 2008.

Abstract

Global warming may cause serious problems in the world. However, the influence of water-related factors, such as water resources and basin ecology, due to global warming has not been comprehensively investigated. In this study, a distributed hydrological and environmental model is applied to assess the impacts of global warming on water resources and ecology of the Nagara River in Japan. With GCM outputs for the two periods, 1979 to 2000 and 2079 to 2100, the model simulation mainly reveals four aspects of the influences of global warming: (i) precipitation and streamflow discharge increase in summer; (ii) air temperature and water temperature rise; (iii) fish habitats are improved, except in summer; and (iv) the boundaries of the crop and vegetation move to higher elevations.

Keywords: Global warming; Water resources; Ecology; Distributed runoff model; GCM outputs

5. Introduction: convince readers that your work is important

- Answer a series of questions:
  - What is the problem?
  - Are there any existing solutions?
  - Which is the best?
  - What is its main limitation?
  - What do you hope to achieve?
- Provide sufficient background information to help readers evaluate your work.
  - General background (review articles cited)→ problems investigated particularly in this piece of research (review the main publications on which your work is based.)
- Convince readers that your work is necessary.
  - Use words or phrases like “however”, “remain unclear”, etc., to address your opinions and work

Pay attention to the following

- You want to present your new data, but you must 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”
- Citing relevant references is very important

Assessment of global warming impacts on water resources and ecology of a river basin in Japan

1. Introduction

Global warming would cause serious problems to the sustainability of our society. With the developments of General Circulation Models (GCMs) and Geographic Information System (GIS), the assessment of global warming impacts on river basin environments is possible. The GCMs can provide worldwide meteorological estimation of atmosphere pressure, air temperature, and precipitation, and the GIS can process the available remote-sensing datasets, such as land elevation and land use. Kojiri (1997) and Fijiwara et al. (2006) proposed an evaluation method of global warming, and Dawson et al. (2000) applied the neural network to study river discharge changes. In addition, regarding global warming, the IPCC (2001) issued warnings about the serious impacts of greenhouse gas emissions and suggested necessary countermeasures. However, the investigation of the global warming impacts on the water resources and river basin ecology lags the requirement of evaluating socio-economic sustainability. Therefore, this paper will explore such global warming impacts.

In this paper, with GCM outputs, a distributed hydrological and environmental model will be used to assess the impact of global warming on water resources and ecology for a basin in Japan, the Nagara River basin. Comparing two time periods, 1979 to 2000 and 2079 to 2100, over the basin, four aspects are investigated. They are (i) precipitation, snowpack and discharge, (ii) air temperature and water temperature, (iii) fish habitats, and (iv) agricultural crops and vegetation.

Try to write concisely and accurately "Less" is *better than* "More"!!

In this study, within the framework of Groundwater Modelling System (GMS 6.0), the ~~package of~~ MODFLOW model was employed ~~applied~~ to ~~construct three-dimensional groundwater model, to~~ study ~~evaluate~~ the groundwater processes of the hydrogeological system of Bou-Areg unconfined aquifer, and to evaluate the impact of different scenarios of varying recharge on the fluctuations of waters levels. MODFLOW is a finite difference groundwater flow model that ~~to~~ simulates a three dimensional ~~area in~~ steady and transient state flow in heterogeneous layered aquifer systems, ~~and to predict the response of Bou-Areg aquifer to different scenarios of futures reduction and/or increase of recharge and abstraction. Also, the purpose of this study was to estimate~~ together with predictions of flow paths using particle tracking (using MODPATH, Pollack 1994). ~~the movement and direction of particles tracking in groundwater system, using the particle tracking program MODPATH (Pollock, 1994) that is included to Groundwater Modelling System (GMS 6.0).~~

6. Methods: how did you study the problem?

- The basic principle: to provide **sufficient information** so that a knowledgeable reader can **reproduce** the experiment, or the derivation.
  - Empirical papers
    - material studied, area descriptions
    - methods, techniques, theories applied
  - Case study papers
    - application of existing methods, theory or tools
    - special settings in this piece of work
  - Methodology papers
    - materials and detailed procedure of a novel experimentation
    - scheme, flow, and performance analysis of a new algorithm
  - Theory papers
    - principles, concepts, and models
    - major framework and derivation

Journal of Hydro-environment Research
Volume 1, Issues 3-4, 20 April 2008, Pages 164-175
doi:10.1016/j.jher.2008.01.002 Cite or Link Using DOI

Assessment of global warming impacts on water resources and ecology of a river basin in Japan

Toshiharu Kojiri[a], Toshio Hamaguchi[a, 1] and Mariko Ode[b, 2]

Article Outline

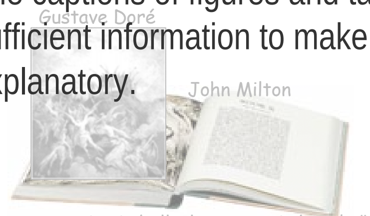
1. Introduction
2. A distributed hydrologic model
 2.1. Evapotranspiration
 2.2. Snowfall–snowmelt
 2.3. Water fluxes
 2.4. Water temperature
3. Study area
4. Methodology for evaluating global warming impacts
 4.1. Aquatic ecology
 4.2. Vegetation
 4.3. Agriculture
5. Results
 5.1. Effects on water
 5.2. Effects on aquatic ecology
 5.3. Effects on vegetation
 5.4. Effects on agriculture
6. Conclusions
References

7. Results
– what have you found?

- The following should be included in this part:
  - Main findings listed in association with the methods
  - Highlighted differences between your results and the previous publications (especially in case study papers)
  - Results of statistical analysis
  - Results of performance analysis (especially in the methodology, or algorithm papers)
  - A set of principal equations or theorems supporting the assumptions after a long chain of inferences (especially in the theory papers)

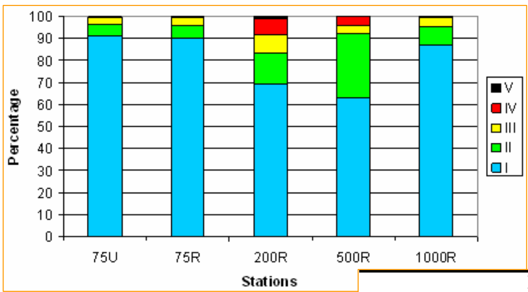
A figure is worth a thousand words…

- Figures and tables are **the most efficient way to present results**.
- Your data are the driving force of the paper. Therefore, your illustrations are critical!
- The captions of figures and tables should contain sufficient information to make the figures self-explanatory.



"Better to reign in hell, than serve in heav'n."
(*Paradise Lost*, 1. 263).

No illustrations should duplicate the information described elsewhere in the manuscript.



Generally, tables give the actual experimental results. In this case, the table is more direct and clear.

The graph repeats what the table describes.

	ECOLOGICAL GROUP				
Station	**I**	**II**	**III**	**IV**	**V**
75U	91.3	5.3	3.2	0.2	0.0
75R	89.8	6.1	3.6	0.5	0.0
200R	69.3	14.2	8.6	6.8	1.1
500R	63.0	29.5	3.4	4.2	0.0
1000R	86.7	8.5	4.5	0.2	0.0

Illustrations should be used only for essential data.

Table 2. Colour codes and notations of the soil layers

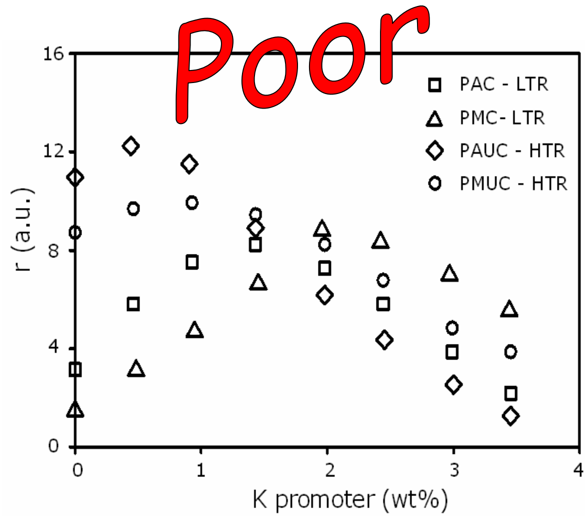
Habitat	Depth (cm)	Colour codes	Colour notation
Woodland	0-5	10YR4/2	Dark grayish brown
	5-10	2.5Y5/3	Light olive brown
	10-15	2.5Y6/3	Light yellowish brown
	15-20	2.5Y6/4	Light yellowish brown
	20-30	2.5Y6.5/3	Light yellowish brown -Light olive brown
	30-40	2.5Y5/3	Light olive brown
	40-50	2.5Y5/3	Light olive brown
	50-60	2.5Y6/3	Light yellowish brown
	60-70	2.5Y5/4	Light olive brown
	70-80	2.5Y6.5/3	Light yellowish brown -Light olive brown
	80-90	2.5Y6.5/3	Light yellowish brown -Light olive brown
	90-100	2.5Y5/3	Light olive brown
Wetland	0-5	2.5Y4/2	Dark grayish brown
	5-10	2.5Y5.5/2	Grayish brown -Dark grayish brown
	10-15	2.5Y5/2	Grayish brown
	15-20	2.5Y4/1.5	Dark gray -Dark grayish brown
	20-30	2.5Y4/2.5	Dark grayish brown -Olive brown
	30-40	2.5Y4/2.5	Dark grayish brown -Olive brown
	40-50	2.5Y4/2	Dark grayish brown
	50-60	2.5Y4/2	Dark grayish brown
	60-70	2.5Y4/2	Dark grayish brown
	70-80	2.5Y4/2	Dark grayish brown
	80-90	2.5Y4/2	Dark grayish brown
	90-100	2.5Y4/2	Dark grayish brown
Grassland	0-5	2.5Y4/2	Dark grayish brown
	5-10	5Y5/2	Olive gray
	10-15	5Y6/2	Light olive gray
	15-20	5Y6/2	Light olive gray
	20-30	5Y6/2	Light olive gray
	30-40	5Y6.5/2	Light olive gray -Olive gray
	40-50	5Y6/2	Pale olive
	50-60	5Y6/2	Pale olive
	60-70	5Y6/2	Light olive gray -Pale olive
	70-80	5Y6/2	Light olive gray -Pale olive
	80-90	5Y6/2	Pale olive
	90-100	5Y6/2	Pale olive

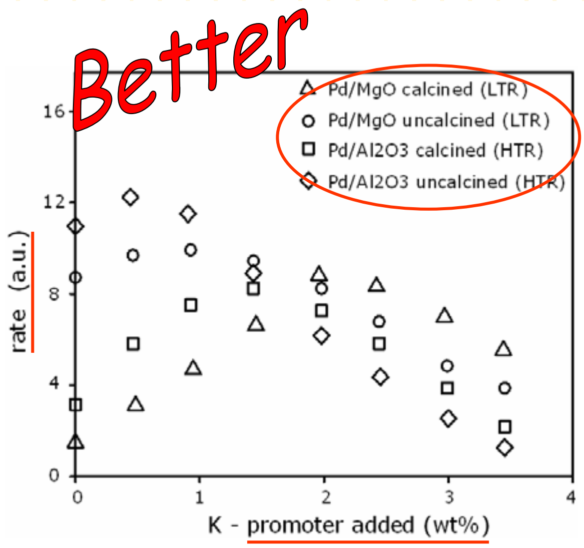
This table can all be said in the text:
'The surface soils were dark grayish brown, grading to light olive brown (woodland), light olive brown (wetland), and pale olive (grassland) at 100 cm.'

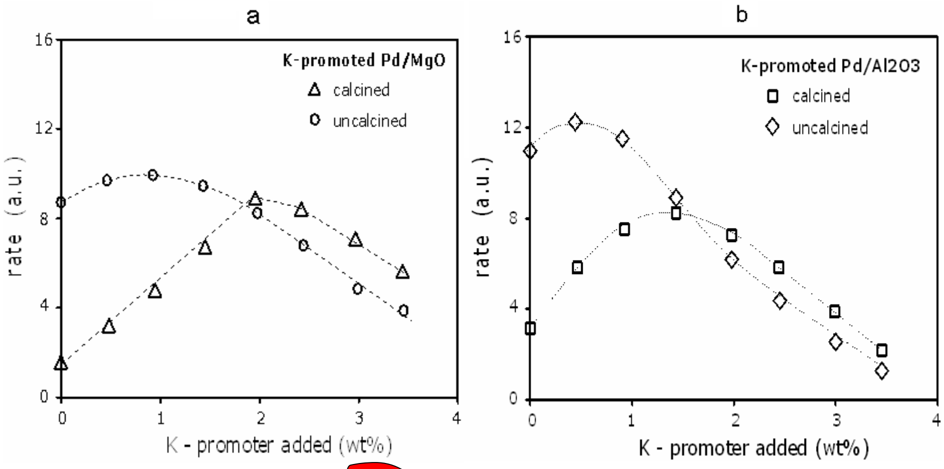
Appearances count!

- Plot 3 or 4 data sets per figure;
- Use subplot panels to assemble figures which illustrate the same type of problem
- Well-selected scales; appropriate axis label size; symbols clear to see and data sets easy to discriminate

Revision of a figure







Best

Revision of a table

Depth	Gravel	Sand	Mud
5 m	3,42%	81.41%	15,17%
50 m	2,5%	58.42%	39.08%
100 m	0,0%	32.5%	67.5%

Water depth (m)	Gravel (%)	Sand (%)	Mud (%)
5	3.4	81.4	15.2
50	2.5	58.4	39.1
100	0	32.5	67.5

Use color ONLY when necessary

an unreadable figure with the unnecessary usage of color

Fig.1 TEM image of purified MWNTs

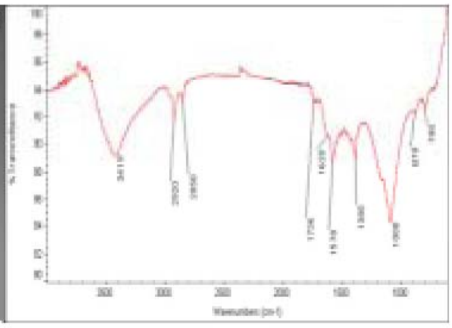


Fig.2 FTIR spectra of purified MWNTs

Avoid long and boring tables

What a crowded
And uninformative
table!

The same field conditions are repeated 4 times

Table 2: Gas separation status and plume terminating criterion for each Set of simulations

Set Number	Field Condition	Variation of Salinity (psu)	Variation of Temperature (°C)	Ambient Velocity Variation (m/s)	Status of Gas Separation	Plume Dynamic Terminating Criterion
1	(1). 07/09/2000 at I1 (Summer)	Figure A2 (a)	Figure A2 (b)	Figure A1 (a)	Not Allowed	Neutral Buoyancy Level
	(2). 12/09/2000 at I1 (Winter)	Figure A3 (a)	Figure A3 (b)	Figure A1 (b)		
	(3). 03/15/2001 at I1 (Extreme Weather)	Figure A4 (a)	Figure A4 (b)	Figure A1 (c)		
	(4). 07/09/2000 at P (Summer)	Figure A5 (a)	Figure A5 (b)	Figure A1 (d)		
	(5). 07/09/2000 at I1 (No Ambient Velocity)	Figure A2 (a)	Figure A2 (b)	NA		
2	(1). 07/09/2000 at I1 (Summer)	Figure A2 (a)	Figure A2 (b)	Figure A1 (a)	Allowed	
	(2). 12/09/2000 at I1 (Winter)	Figure A3 (a)	Figure A3 (b)	Figure A1 (b)		
	(3). 03/15/2001 at I1 (Extreme Weather)	Figure A4 (a)	Figure A4 (b)	Figure A1 (c)		
	(4). 07/09/2000 at P (Summer)	Figure A5 (a)	Figure A5 (b)	Figure A1 (d)		
	(5). 07/09/2000 at I1 (No Ambient Velocity)	Figure A2 (a)	Figure A2 (b)	NA		
3	(1). 07/09/2000 at I1 (Summer)	Figure A2 (a)	Figure A2 (b)	Figure A1 (a)	Not Allowed	Velocity Criterion
	(2). 12/09/2000 at I1 (Winter)	Figure A3 (a)	Figure A3 (b)	Figure A1 (b)		
	(3). 03/15/2001 at I1 (Extreme Weather)	Figure A4 (a)	Figure A4 (b)	Figure A1 (c)		
	(4). 07/09/2000 at P (Summer)	Figure A5 (a)	Figure A5 (b)	Figure A1 (d)		
	(5). 07/09/2000 at I1 (No Ambient Velocity)	Figure A2 (a)	Figure A2 (b)	NA		
4	(1). 07/09/2000 at I1 (Summer)	Figure A2 (a)	Figure A2 (b)	Figure A1 (a)	Allowed	
	(2). 12/09/2000 at I1 (Winter)	Figure A3 (a)	Figure A3 (b)	Figure A1 (b)		
	(3). 03/15/2001 at I1 (Extreme Weather)	Figure A4 (a)	Figure A4 (b)	Figure A1 (c)		
	(4). 07/09/2000 at P (Summer)	Figure A5 (a)	Figure A5 (b)	Figure A1 (d)		
	(5). 07/09/2000 at I1 (No Ambient Velocity)	Figure A2 (a)	Figure A2 (b)	NA		

A few statistical rules for the Results section

- Indicate the statistical tests used with all relevant parameters

  E.g., Mean and standard deviation (SD) 44% (3)

  Median and interpercentile range 7 years (4.5 to 9.5 years)

- Mean and standard deviation: to report normally distributed data. Median and interpercentile range: to report skewed data.

- Numbers: usually reported in the form of two significant digits unless more precision is necessary.

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8. Discussion – what the results mean

- Check for the following:
  - How do your results relate to the original question or objectives outlined in the Introduction section?
  - Can you reach your conclusion smoothly after your discussion?
  - 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?
- Do not
  - Make statements that go beyond what the results can support
  - Suddenly introduce new terms or ideas

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Watch out with non-quantitative words!

E.g., Low/high; Extremely; Enormous; Rapidly; Dramatic; Massive; Considerably; Exceedingly; Major, minor; …

They are often qualified by very, quite, slightly, etc. Quantitative description is always preferred.

- But note subtleties

  'the effect of adding N was minor' – not quantitative;

  'the effect of adding P was to increase dry weight by 60% whereas the effect of adding N was minor' – 'minor' is given a sense of quantitative definition.

- Ask your colleagues to read Results and Discussion before you go further!
- Check the organization, number and quality of illustrations, the logic and the justifications.
- Revision of Results and Discussion is not just paper work. You may do further experiments, derivations, or simulations.

9. Conclusion: *How your work advances the field from the present state of knowledge*

A clear conclusion section helps reviewers to judge your work easily.

- Do
  - Present global and specific conclusions, in relation to the objectives.
  - Indicate uses, extensions, and limitations if appropriate
  - Suggest future experiments and point out those that are underway.
- Do not
  - Summarize the paper (the abstract is for that purpose)
  - Make a list of trivial statements of your results
  - Make judgments about impact
  - Use uncertain words such as “might”, “probably”

Assessment of global warming impacts on water resources and ecology of a river basin in Japan

Toshiharu Kojiri[a], Toshio Hamaguchi[a, 1] and Mariko Ode[b, 2]

6. Conclusions

In this study, the impacts of global warming on water resources and ecology of the Nagara Basin in Japan were investigated according to the simulation of water quantity and temperature over the periods of 1979 to 2000 and of 2079 to 2100. The total impact assessment is summarized in Table 2. The results showed that the global warming will decrease the snowpack over the basin significantly, and the river water temperature and evapotranspiration will increase accordingly. Using the index of suitability, the warming effects on aquatic ecology, vegetation and agriculture were studied, and the results showed that the influences are substantial. From the study, it reveals that greater understanding of the warming effects may be obtained using more reliable models for representing the global warming and terrestrial features. Then, comprehensive analyses of global warming effects can result in proper countermeasures to their related influences for a sustainable human society under conditions of climate change.

10. Acknowledgments

- Your chance to thank:
  - People who have helped you, e.g., technical help, English revision
  - Funding organizations
  - Affiliation to projects and programs
  - Reviewers and editors (especially in the revised manuscript)
- Do
  - Ask permission from those who will be acknowledged with their names mentioned.
  - State clearly why they are acknowledged.
  - Include the grant number or reference.

Journal of Hydro-environment Research
Volume 1, Issues 3-4, 20 April 2008, Pages 187-194
doi:10.1016/j.jher.2007.12.003 Cite or Link Using DOI

Effects of porous barriers such as coral reefs on coastal wave propagation

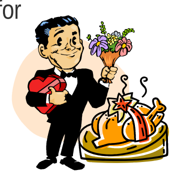
H.J.S. Fernando[a], S.P. Samarawickrama[b], S. Balasubramanian[a], S.S.L. Hettiarachchi[b] and S. Voropayev[a]

Acknowledgements

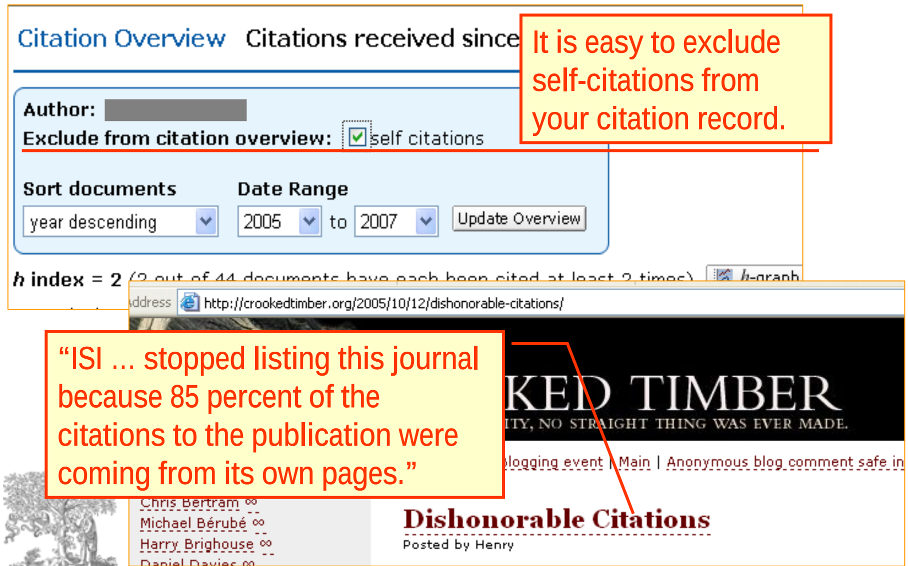
This work was conducted when Dr. Samarawickrama was visiting ASU during the summers of 2005 and November 2006. He was supported by the Sri Lanka Science Foundation and ASU Environmental Fluid Dynamics Program. The original field work of the first author was supported by the US National Science Foundation and Earthquake Research Institute.

11. References: get them right!

- Please conform everything to the Guide for Authors of the journal
- It is your responsibility, not of the Editor, to format references correctly!
- Check
  - The spelling of author names, the year of publication
  - Punctuation use
  - Use of “et al.”: “et al.” = “and others”,
- Avoid citing the following if possible:
  - Personal communications, unpublished observations, manuscripts submitted but not yet accepted for publication
  - Articles published only in the local language, which are difficult for international readers to find



Avoid excessive self-citation and journal self-citation



It is easy to exclude self-citations from your citation record.

“ISI ... stopped listing this journal because 85 percent of the citations to the publication were coming from its own pages.”

12. Supplementary Materials

Supplementary Materials: of secondary importance to the main scientific thrust of an article

- Not a part of the main article
- Will be available online to readers if the paper is eventually published.
- All the information should be related and supportive to your article.

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- How to write a good manuscript for an international journal
  - Preparations before starting
  - Construction of an article
  - Technical details

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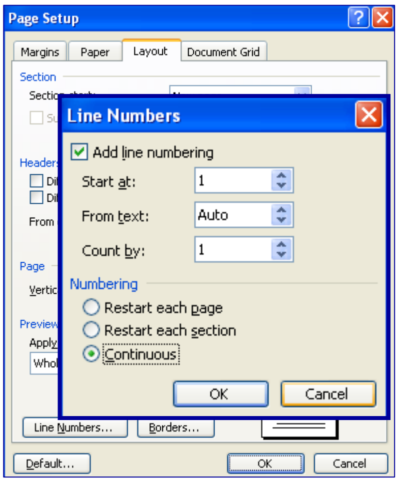
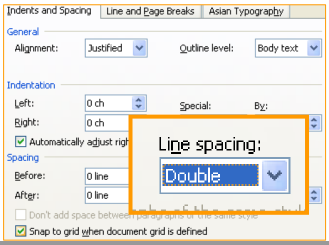
1. Suggested text layout

- Keep it consistent throughout the manuscript.
- Double line spacing and 12 font is preferred: make it convenient for reviewers to make annotations.
- Number the pages.
- Number the lines if the journal requires to do so.





2. Suggested length of a full article

- "…25- 30 pages is the ideal length for a submitted manuscript, including ESSENTIAL data only."
  - – Julian Eastoe, Co-editor, *Journal of Colloid and Interface Science*

➢ Title page	
➢ Abstract	1 paragraph
➢ Introduction	1.5-2 manuscript pages (double-spaced, 12pt)
➢ Methods	2-4 manuscript pages
➢ Results and Discussion	10-12 manuscript pages
➢ Conclusions	1-2 manuscript pages
➢ Figures	6-8
➢ Tables	1-3
➢ References	20-50 items

- Letters or short communications have a stricter limitation of the length. For example, 3000 words with no more than 5 illustrations.

3. Abbreviations

- Abbreviations should be defined **on the first use** in **both** abstract and the main text.
- Some journals even forbid the usage of abbreviations in the abstract.
- Abbreviations that are **firmly established** in the field do not need to be defined, e.g. GIS, CFD.
- Never define an abbreviation which is never **used later** in the text.
- Acronyms: abbreviations that consist of the initial letters of a series of words; don't over use them!

4. Cover letter

- Basic information should be included as follows:
  - Editor name(s)
  - Originality of submission
  - No competing financial interests
  - Suggest reviewers
  - Mention significance or special points

Example

April XX, 2007

JOURNAL EDITOR NAME

Editor-in-Chief

NAME OF JOURNAL

Dear Dr. JOURNAL EDITOR NAME:

I am submitting the manuscript "Manuscript Title" by RESEARCHER NAME for consideration for publication in NAME OF JOURNAL. I confirm that the manuscript has not been published or under consideration for publication elsewhere. Further, this submission has been approved by the institution where the study was conducted. Correspondence concerning the manuscript should be to the author, RESEARCHER NAME. I look forward to learning your response to our submission.

Sincerely,

RESEARCHER NAME, Ph.D.

Email: xxxxx@xxx.edu.cn

UNIVERSITY NAME, DEPARTMENT, AND ADDRESS

- Current status of Chinese articles
- Why do scientists publish?
- How to write a good manuscript for an international journal
  - Preparations before starting
  - Construction of an article
  - Technical details
- **Revision, and response to reviewers**
- Ethical issues
- Conclusion: what gets you accepted?

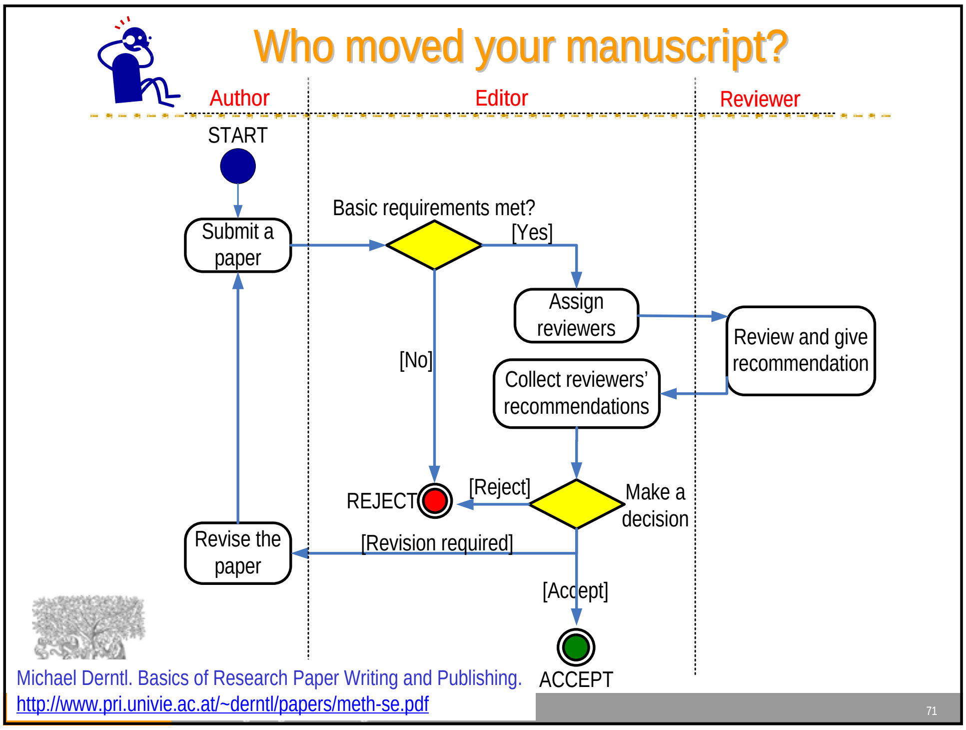
Why is revision important and necessary?

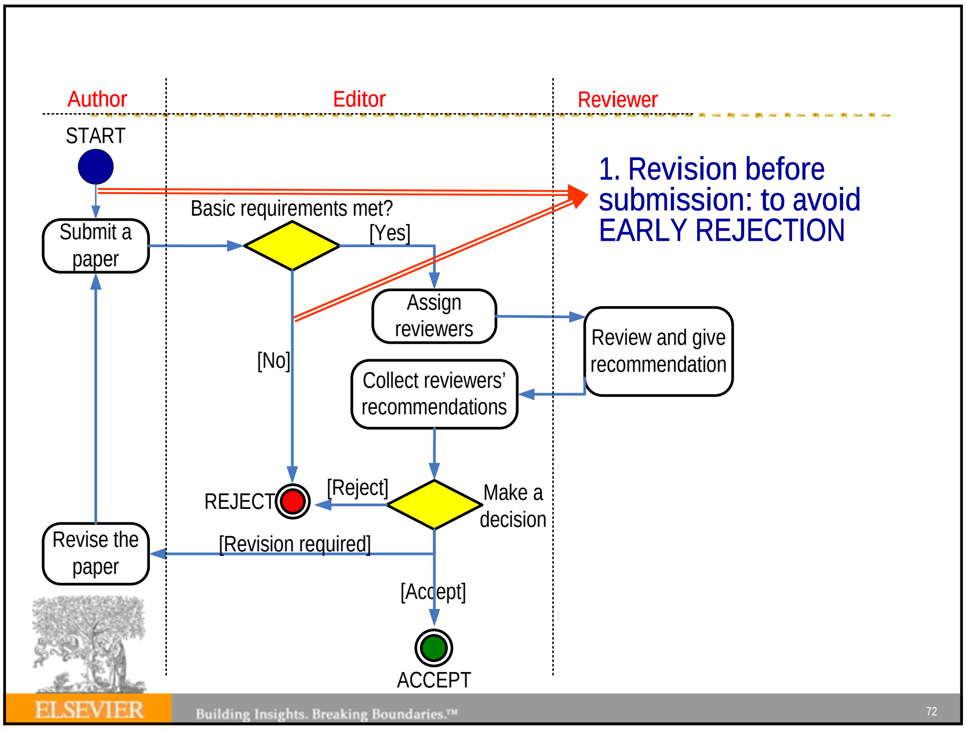
- Which procedure do you prefer?
  - Send out a sloppily prepared manuscript → get rejected after 4-6 months → send out again only a few days later → get rejected again… → sink into despair
  - Take 3-4 months to prepare the manuscript → get the first decision after 4 months → revise carefully within time limitation…accepted

WRITE and RE-WRITE

-- until you are satisfied

Please cherish your own achievements!


Who moved your manuscript?
Author
Editor
Reviewer
START
Submit a paper
Basic requirements met?
[Yes]
[No]
Assign reviewers
Review and give recommendation
Collect reviewers' recommendations
REJECT
[Reject]
Make a decision
Revise the paper
[Revision required]
[Accept]
ACCEPT
Michael Derntl. Basics of Research Paper Writing and Publishing.
http://www.pri.univie.ac.at/~derntl/papers/meth-se.pdf
71


Author
Editor
Reviewer
START
1. Revision before submission: to avoid EARLY REJECTION
Submit a paper
Basic requirements met?
[Yes]
[No]
Assign reviewers
Review and give recommendation
Collect reviewers' recommendations
REJECT
[Reject]
Make a decision
Revise the paper
[Revision required]
[Accept]
ACCEPT
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72

Make the manuscript as good as possible *before submission*

- No one gets it right the first time!
- Write, and re-write.
- Suggestions:
  - After writing a first version, take several days of rest. Refresh your brain with different things. Come back with critical eyes.
  - Ask your colleagues and supervisor to review your manuscript first. Ask them to be highly critical, and be open to their suggestions.

Revision before submission – *checklist*

Reasons for early rejection: Content (aims and scope)

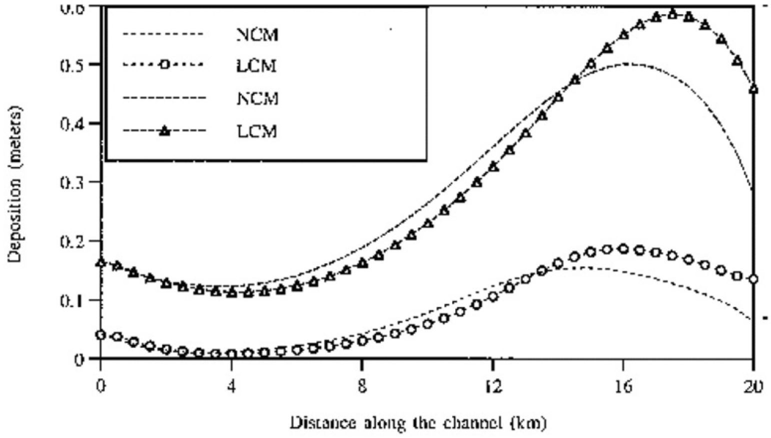
- Paper is of limited interest or covers local issues only (sample type, geography, specific product, etc.).
- Paper is a routine application of well-known methods
- Paper presents an incremental advance or is limited in scope
- Novelty and significance are not immediately evident or sufficiently well-justified

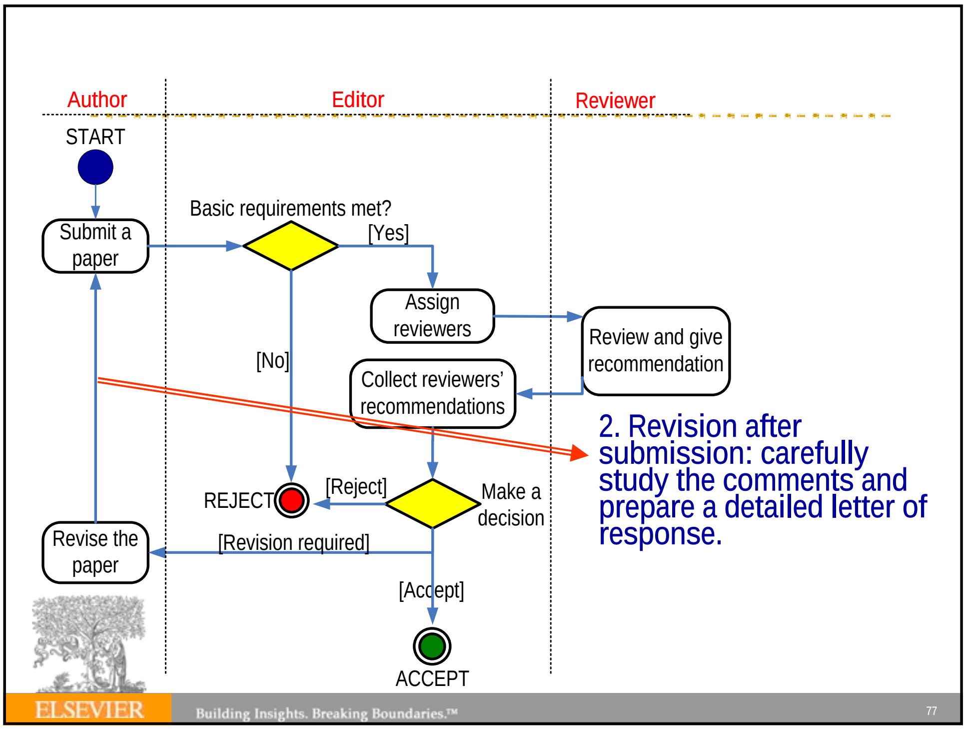
Reasons for early rejection: Preparation

- Failure to meet submission requirements
- Incomplete coverage of literature
- Unacceptably poor English

Editor's Comments to Editor:	It is a poor quality paper. On the basis of my review, I recommend rejection.
Editor's Comments to Author:	Associate Editor: Flooding flow-sediment problem is solved by two implicit finite difference methods, e.g. linear and nonlinear coupled methods. Also non-linear coupled and uncoupled models were developed incorporating grain sorting and bed armouring. The Redhill River watershed was selected as a case study and the results of application of developed models to flow and sediment variations were examined. Having read the paper, I find this is a mere traditional exercise using a FORTRAN program NAG developed by the University of London in 1985. There is nothing original that warrants an international publication. Although authors have stated that they considered a case study, little is found to validate the results obtained from the models by the field data. Only in Fig. 8, a lone set of field data was used for the validation of model results that too have little agreement with the filed data. Additionally, the English presentation is also poor. I therefore recommend the paper be declined.

Sub-standard figure





Take revision very seriously.

- Nearly every article requires revision.
- Bear in mind that editors and reviewers mean to help you improve your article. Do not take offence.
- Minor revision does NOT guarantee acceptance after revision. Do not count on acceptance before you carefully study the comments.
- Revise the whole manuscript – not just the parts the reviewers point out.

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Revision: a great learning opportunity!

- Cherish the chance of discussing your work directly with other scientists in your community. Please prepare a detailed letter of response.
- Cut and paste each comment by the reviewer. Answer it directly below. Do not miss any point. State specifically what changes (if any) you have made to the manuscript. Identify the page and line number. *A typical problem – Discussion is provided but it is not clear what changes have been made*.
- Provide a scientific response to the comment you accept; or a convincing, solid and polite rebuttal to the point you think the reviewer is wrong.
- Write in a way that your responses can be given to the reviewer.

A sample response

Response to the Comments from Associate Editor

"it is not clear how the jet edge is defined for the wall jet spread rate in Fig.6 (for the line jet, the jet edge is defined when u = 0?)."

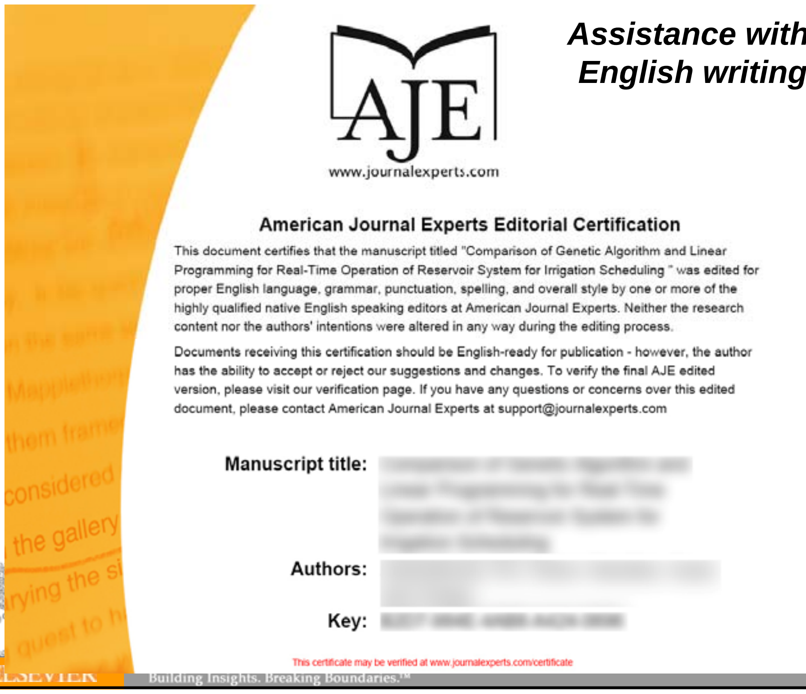
We defined the jet edge where u = 0. This is clarified in the revised text (the second paragraph from the bottom on p.6), and we have added some comments (in the same paragraph) about this definition.

"The 3D potential flow model prediction seems to work only for the centerplane maximum velocity very close to the outlet; the agreement with data is mainly qualitative."

We have added discussion on the extent of the orifice influence (last paragraph on p.8). The 3D potential flow model work close to the orifice (within about 3d, where d is the diameter). The comparisons are shown in both Fig. 9 and 10. We are actually quite pleased with the agreement.

"Also the flow of a 2D jet in confined depth in previous studies (e.g. Jirka and Harleman 1979) has quite different downstream controls even for weakly buoyant cases; the relation to the present study needs to be better discussed."

Assistance with English writing



AJE

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American Journal Experts Editorial Certification

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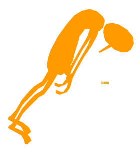
Rejection: not the end of the world



- Everyone has papers rejected – do not take it personally.
- Try to understand why the paper was rejected.
- Note that you have received the benefit of the editors and reviewers' time; take their advice serious!
- Re-evaluate your work and decide whether it is appropriate to submit the paper elsewhere.
- If so, begin as if you are going to write a new article. Read the Guide for Authors of the new journal, again and again.

Don’t resubmit a rejected manuscript to another journal without significant revision! It won’t work.

- The original reviewers (even editors) often find out, leading to animosity towards the author.
- A suggested strategy
  - In your cover letter, declare that the paper was rejected and name the journal.
  - Include the referees’ reports and a detailed letter of response, showing how each comment has been addressed.
  - Explain why you are resubmitting the paper to this journal, e.g., this journal is a more appropriate journal; the manuscript has been improved as a result of its previous review; etc.

- Current status of Chinese articles
- Why do scientists publish?
- What is a good manuscript?
- How to write a good manuscript for an international journal
  - Preparations before starting
  - Construction of an article
  - Technical details
- Revision, and response to reviewers
- **Ethical issues**
- Conclusion: what gets you accepted?

Deadly sins – Unethical behavior "can earn rejection and even a ban from publishing in the journal"

– Terry M. Phillips, Editor, *Journal of Chromatography B*

- Multiple submissions
- Redundant publications
- Plagiarism
- Data fabrication and falsification
- Improper use of human subjects and animals in research
- Improper author contribution

1. Multiple submissions (一稿多投)

- Multiple submissions save your time but waste editors'.
- The editorial process of your manuscripts will be completely stopped if the duplicated submissions are discovered.

"It is considered to be unethical…We have thrown out a paper when an author was caught doing this. I believe that the other journal did the same thing. "

– James C. Hower, Editor, *the International Journal of Coal Geology*

- Competing journals constantly exchange information on suspicious papers (even between competitors).
- You should not send your manuscripts to a second journal UNTIL you receive the final decision of the first journal.

2. Redundant Publication (重复发表)

- An author should not submit for consideration in 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.

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Acceptable secondary publication

- "Certain types of articles, such as guidelines produced by governmental agencies and professional organizations, may need to reach the widest possible audience. In such instances, editors sometimes choose deliberately to publish material that is also being published in other journals, with the agreement of the authors and the editors of those other journals."

– Writing and Editing for Biomedical Publication, International Committee of Medical Journal Editors, *Uniform Requirements for Manuscripts submitted to Biomedical Journals*.

http://www.icmje.org/index.html#ethic

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3. Plagiarism (剽窃)

"Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit, including those obtained through confidential review of others' research proposals and manuscripts." (the Federal Office of Science and Technology Policy, 1999).

- "Presenting the data or interpretations of others without crediting them, and thereby gaining for yourself the rewards earned by others, is theft, and it eliminates the motivation of working scientists to generate new data and interpretations."

  – Bruce Railsback, Professor, Department of Geology, University of Georgia
- For more information on plagiarism and self-plagiarism, please see http://facpub.stjohns.edu/~roigm/plagiarism/

Plagiarism: a tempting short-cut with 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 including dismissal, and will certainly cause rejection of your paper.
- Plagiarism will damage your reputation in the scientific community and may even ruin your career.

Source: China Daily, 15 March 2006

- • Chinese authorities take strong measures against scientific dishonesty
- • Plagiarism and stealing work from colleagues can lead to serious consequences

Plagiarism, fake research plague academia

y Zhu Zhe

s China marks the World Con- umer Rights Day today, the spot- ght would inevitably be on poor oducts and shoddy service.

But attention is also being focused n the rights of a special group of onsumers: subscribers or readers academic journals.

Plagiarism and fake research have come rampant in China, and are eroding people's trust in academia, Ren Yuing, a member of the Councillors' Office of the State Council, told the recent meeting of the Chinese People's Political Consultative Conference, the top advisory body.

He cited a recent survey of 180 PhD degree holders, of whom 60 per cent paid to be published in academic journals; and about the same percentage copied others' work.

"The situation exists in almost every well-known Chinese university," He Weifang, a professor at Peking University's law school, told China Daily. He is also an activist in fighting what he called academic corruption.

Some 100 Chinese professors plan to publish an open letter calling for the establishment of a national supervision mechanism to root out academic plagiarism. The move follows a series of academic scandals:

■ Qiu Xiaoqing, a biomedicine professor at Sichuan University, was [redacted]used of publishing fraudulent research in the November 2003 issue of Nature Biotechnology.

■ Zhou Yezhong, a professor at Wuhan University's law school, was last December accused of copying others' work "word for word."

■ Shen Luwei, an associate professor at Tianjin Foreign Studies University, was removed from his post in January for plagiarizing 10 articles in his book.

>>Page 2, Corruption

Repairing research integrity:

A survey suggests that many research misconduct incidents in the United States go unreported to the Office of Research Integrity. - *Nature*, Vol.453, June 19, 2008

"The 2,212 researchers we surveyed observed 201 instances of likely misconduct over a three year period. That's 3 incidents per 100 researchers per year. A conservative extrapolation from our findings to all DHHS-funded (health and human services) researchers predicts that more than 2,300 observations of potential misconduct are made every year."

Examples of ethical mis-conduct

“A post doc changed the numbers in assays in order to ‘improve’ the data.”

“A colleague duplicated results between three different papers but differently labelled data in each paper.”

“A co-investigator on a large, interdisciplinary grant application reported that a postdoctoral fellow in his laboratory falsified data submitted as preliminary data in the grant.”

ScienceDirect

Example

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

RETRACTED: Matching pursuit-based approach

[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 Nond International*, volume 38 (2005) 453 – 458 authored by [redacted]

The article of which the authors committed self-plagiarism: it won’t be removed from ScienceDirect. Everybody who downloads it will see the reason of retraction…

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

Inappropriate paraphrasing

- Paraphrasing is restating someone else's ideas while not copying verbatim.
- Unacceptable paraphrasing includes any of the following:
  - using phrases from the original source without enclosing them in quotation marks;
  - emulating sentence structure even when using different wording;
  - emulating paragraph organization even when using different wording or sentence structure.
- Unacceptable paraphrasing--even with correct citation--is considered plagiarism.

– *Statement on Plagiarism*. Department of Biology, Davidson College.
http://www.bio.davidson.edu/dept/plagiarism.html

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Word-for-word copying

Example1

- Original (Gratz, 1982):

  Bilateral vagotomy resulted in an increase in tidal volume but a depression in respiratory frequency such that total ventilation did not change.

- Restatement 1:

  Gratz (1982) showed that bilateral vagotomy resulted in an increase in tidal volume but a depression in respiratory frequency such that total ventilation did not change.

– Ronald K. Gratz. *Using Other's Words and Ideas*.
Department of Biological Sciences, Michigan Technological University
https://www.geo.mtu.edu/~asmayer/un1001/UN1001%20Fac%20Handbk%202_%20Using%20Other's%20Words%20&%20Ideas.pdf

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4. Data fabrication and falsification (数据造假)

- Fabrication is making up data or results, and recording or reporting them.
- Falsification is manipulating research materials, equipment, processes; or changing / omitting data or results such that the research is not accurately represented in the research record.

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

– G.C.Lichtenberg (1742 - 1799)

5. Improper author contribution

- Authorship credit should be based on
  1. substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data;
  2. drafting the article or revising it critically for important intellectual content;
  3. final approval of the version to be published.

  Authors should meet conditions 1, 2, and 3. Those who have participated in certain substantive aspects of the research project should be acknowledged or listed as contributors.

Acquisition of funding, collection of data, or general supervision of the research group, alone, does not justify authorship.

- Each author should have sufficiently participated in the work to take public responsibilities for appropriate portions of the content.
- The corresponding author should ensure that all appropriate co-authors and no inappropriate co-authors are included on the paper. If there is plagiarism or other ethical problems, the corresponding author cannot hide behind or remain innocent.

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  - Preparations before starting
  - Construction of an article
  - Technical details
- Revision, and response to reviewers
- Ethical issues
- **Conclusion: what gets you accepted?**

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Questions?

Thanks!