

Publish or Perish: Strategies for Publishing in Western Geoscience Literature

Alan G. Jones

(Formerly DIAS, now CMTS)



and Publish or Perish:

Strategies for Publishing in Western

Geoscience Literature

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Why publish?

- To tell the “world” (your discipline world, your local world, geophysics world, broader geoscience world, general public world) of the results of your research
 - If you don’t tell anyone what you did and what you found, there was no point doing the work!
- If you are funded by public money, you have a responsibility and moral and ethical obligations to publish!
- Publishing advances your career
- Publishing differentiates between those with technical skills and research scientists
- You must publish, so learn to care about it and to enjoy it... do not think of it as a chore or a necessary evil, it must be thought of as part of what you do as a research scientist
- Make sure that writing for publication takes an important part of your life by scheduling quality time for it, should take **AT LEAST 10%** of your research time, more like 20% (1/5th of your time) – do NOT leave it to last minute as an afterthought...

Why publish?

The point of publishing is NOT to publish for the sake of it (although in some cases this is necessary...), but to publish so that there is a record of your research and primarily so that your research results in **impact** and **influence**.

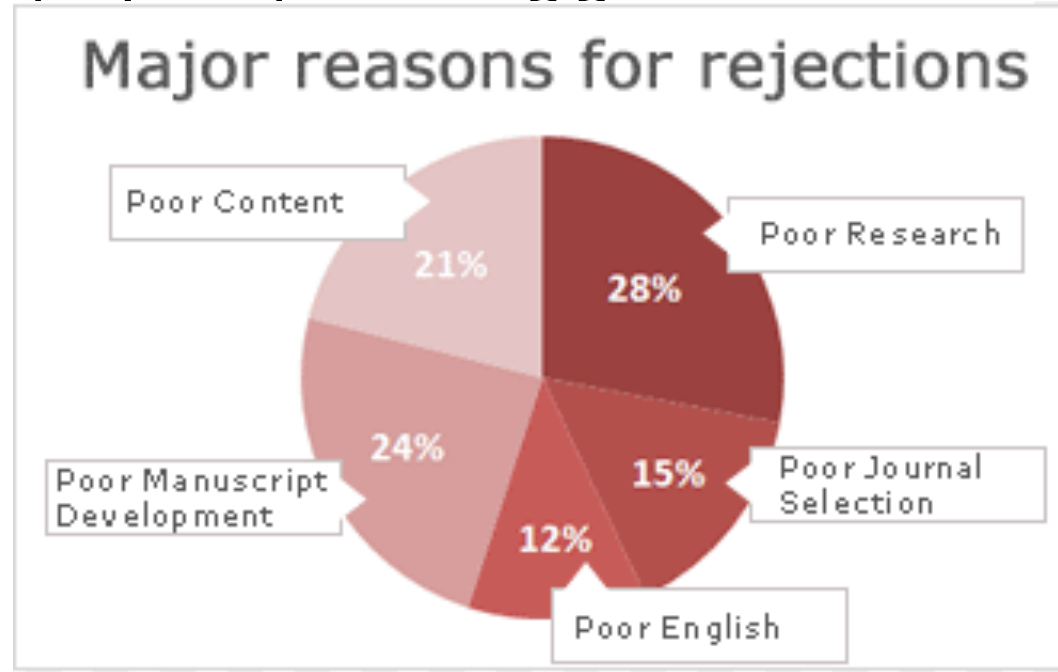
The whole point of publishing your work is that you want to modify the research behaviour of others as a consequence of your own work.

If your publication results in no impact or influence, (i.e., no citations) then it was a waste of your time!

... and your time is your most precious resource, yet we spend our time wastefully...

Why publish?

- ...and learn how to play the publishing game...

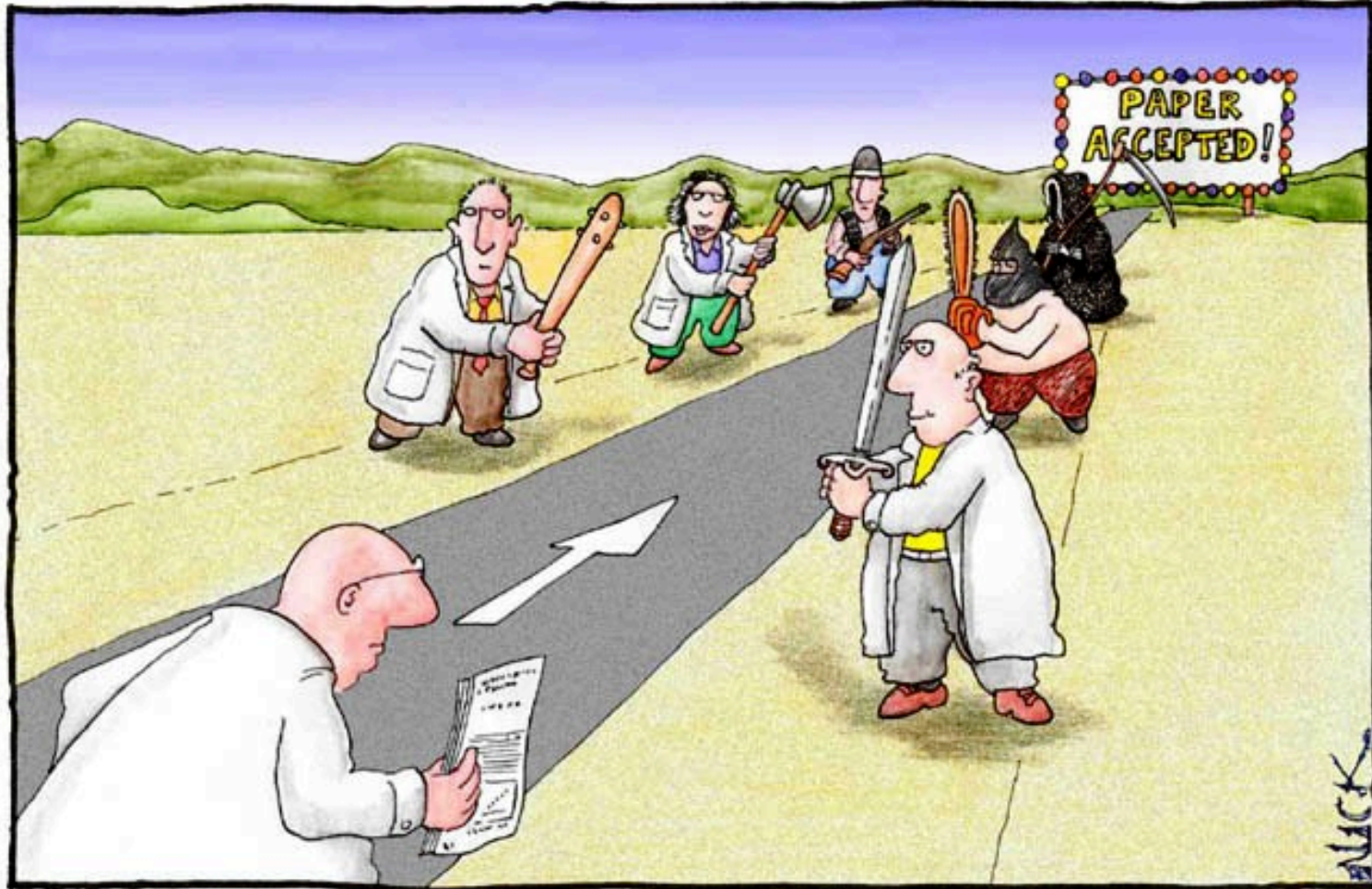


“Poor Research” only accounts for 28% of rejected papers! I will not address here the “Poor Research” but assume that the research is highest quality (which it should be!!!)...

Note that the main reasons for rejection (apart from the research) are to do with the content and with the structure of the manuscript – those are in your hands!

Why publish?

- ...and the game can be tough...



Why publish?

- ... and VERY illogical (we are all humans and prone to error)



Why publish?

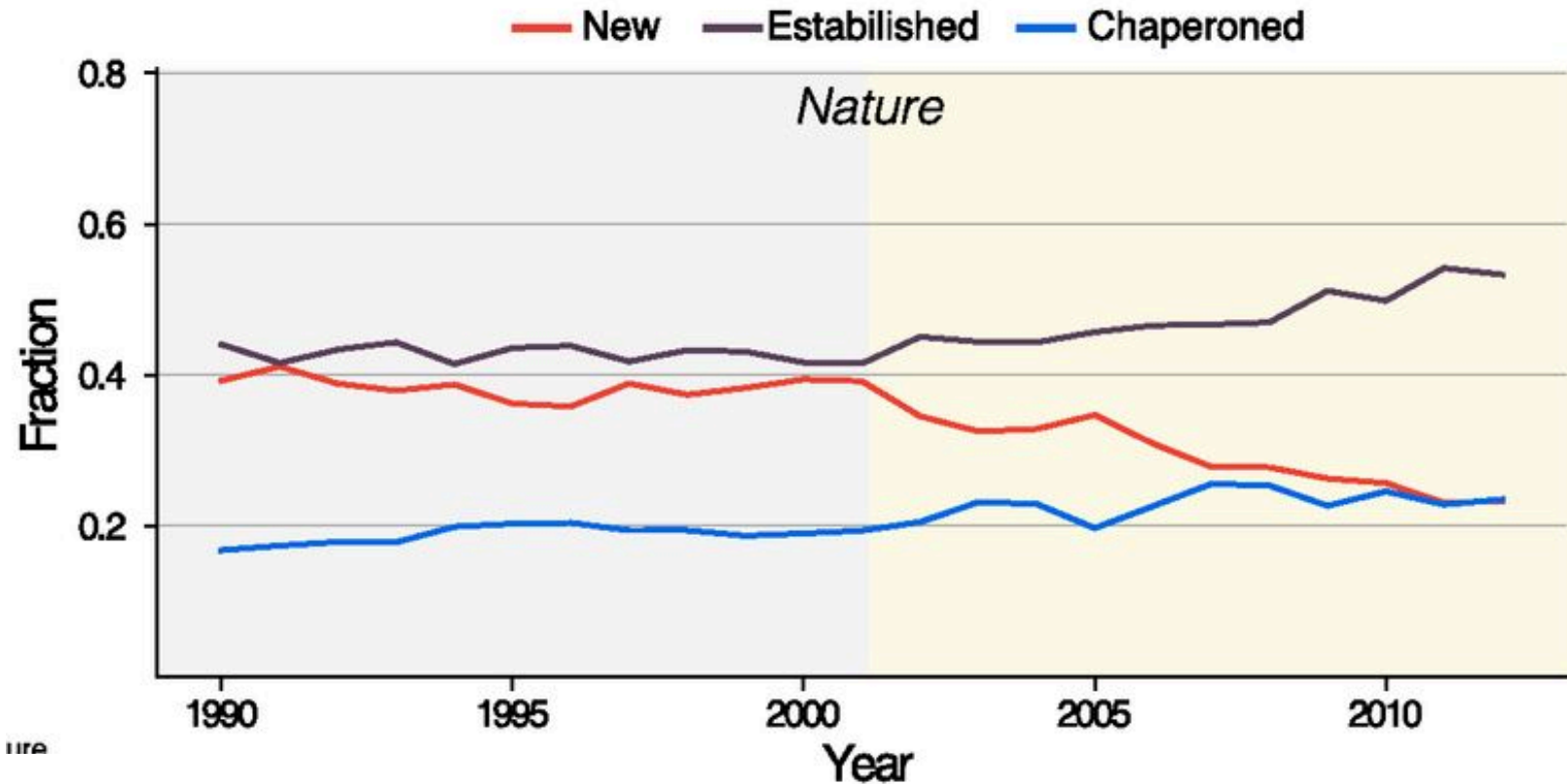
- ... and is very biased...

Probability of successfully publishing in *Nature* as a function of prior publishing history in *Nature*:

Established: A prior first-author paper

Chaperoned: A prior co-author

New: Not published in *Nature* before



The chaperone effect in scientific publishing

Vedran Sekara, Pierre Deville, Sebastian E. Ahnert, Albert-László Barabási, ...

[+ See all authors and affiliations](#)

Why publish?

- ... and what you think of as your best work might not have the impact you hoped

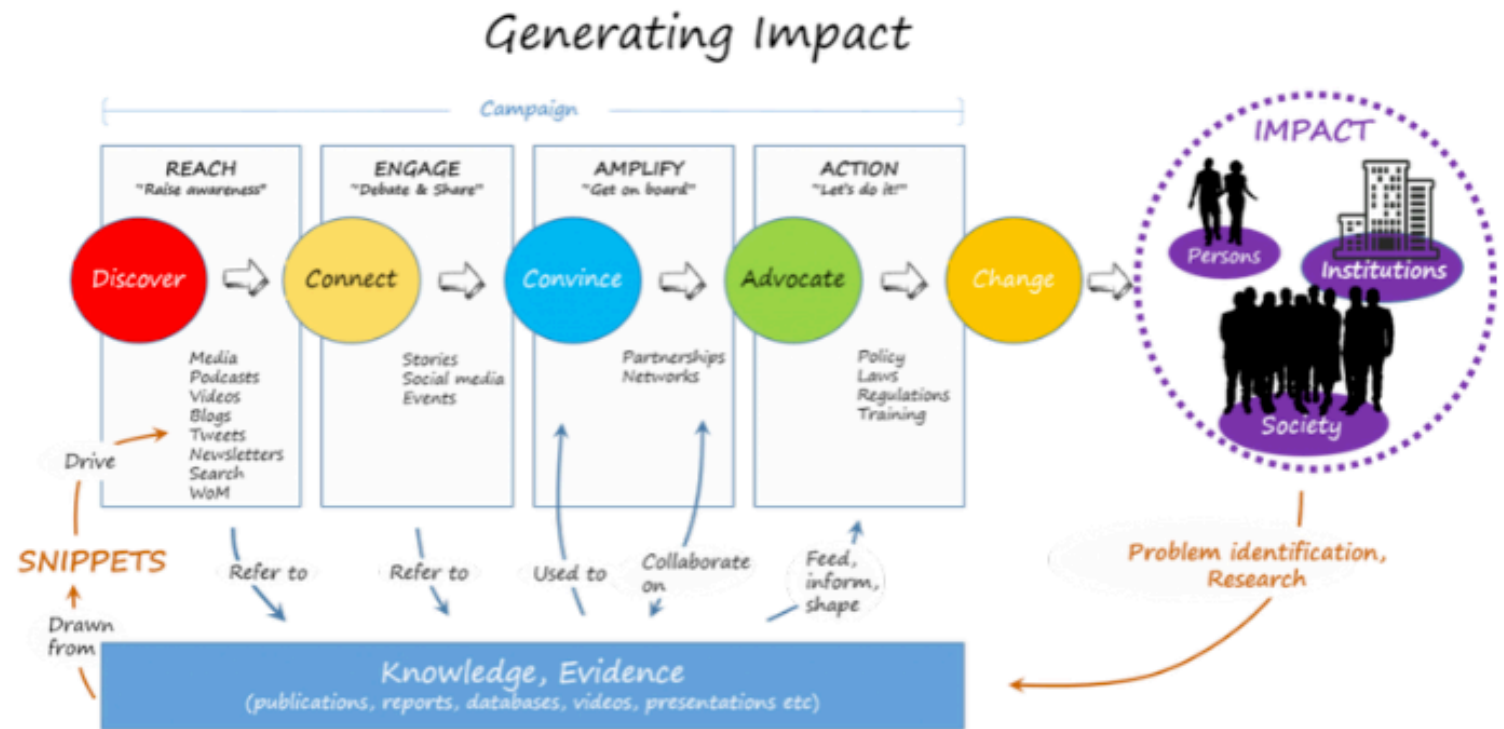


Illustration: © Toby Green, 2019

Why publish?

“In science the credit goes to the man who convinces the world, not to the man to whom the idea first occurs.”

Sir William Osler (1849-1919), FRS, FRCP (founder of Johns Hopkins)

- YOU might have a brilliant idea, but unless you set that idea in a global context then someone else will, and they will get the credit, not you!
- No tectonic process is unique to your back yard! Look for global correlatives.

An international editor says...

*“The following problems appear **much too frequently**”*

- *Submission of papers which are clearly out of scope of the journal*
- *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*

Do NOT submit a rejected manuscript to another journal!!! We are a small community!

Role of preprint servers?

For many years some science communities (astrophysicists, particle physicists, medical sciences) have got their “hot” results out first on preprint servers (ArXiv, MedRXiv).

One is being promoted for the Earth sciences (EarthArXiv - <https://eartharxiv.org/>)

Is this a good idea for your own manuscript? Maybe!

Personally, I am not sure... Lot of advantages, but there are some disadvantages...

Users of papers on the servers have to be careful...

THE NEED FOR SPEED —

The preprint problem: Unvetted science is fueling COVID-19 misinformation

Problems with Preprints: Covering Rough-Draft Manuscripts Responsibly

Papers on preprint servers may be questionable and may not have the intended impact (too much impact for poor science or too little for good science)

Also, you may make an embarrassing error... peer review is positive for many reasons

BUT... the traditional publishing model is broken and publishing needs to change

My own experience...

Who am I and what do I know about scientific publishing?

My own editorial & reviewing record...

Associate Editor JGR-SE for 12 years (3 terms)

Associate Editor Geology for 8 years (2 terms)

Former International Editor EPS for 12 years

Former EM methods Editor for Surveys of Geophysics

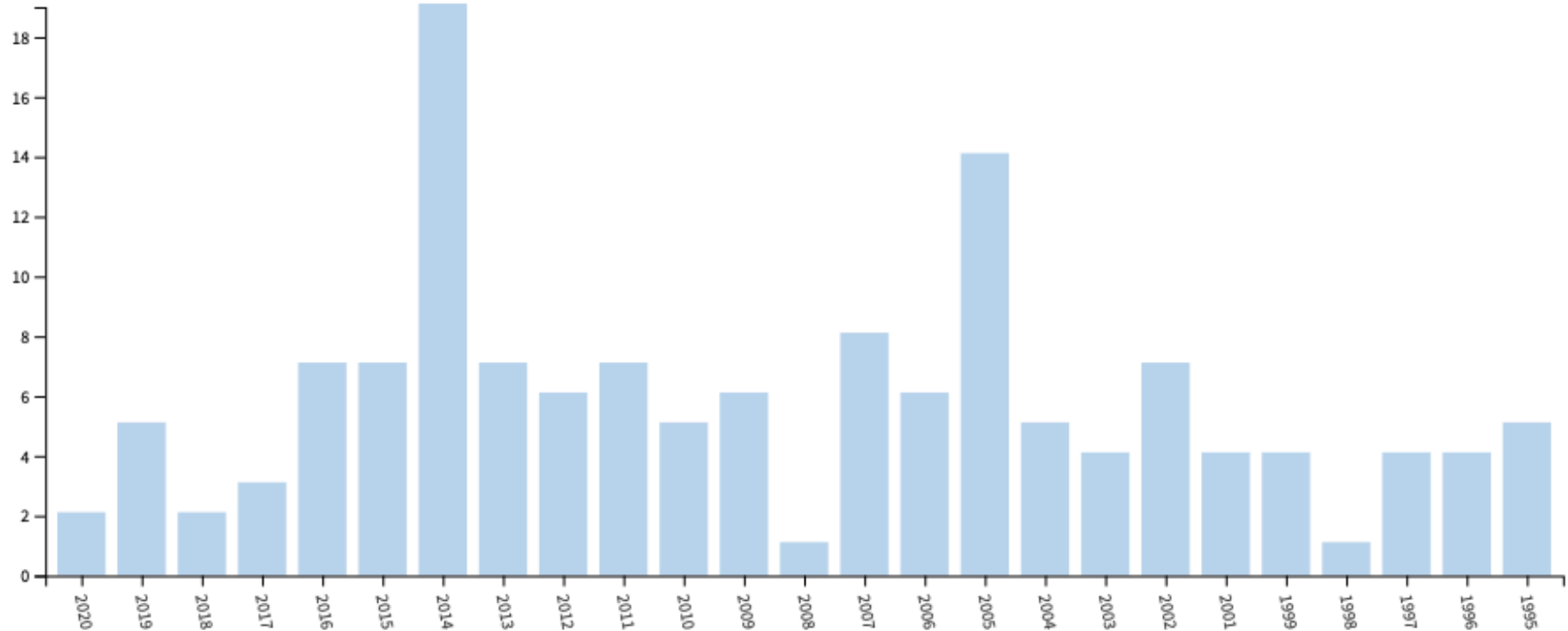
Theme (LAB) Editor G-cubed for 4 years

Special Issues editor for many special issues – PEPI, Lithos, EPS, JGG

Reviewed hundreds of papers – about 2-3/month = ~30/year for 35 years...

My own publishing record...

Publications by year: 200 in 43 years = 5/year



Some years are more “productive” than others, but that productivity relies on work done in prior years

My own publishing record...

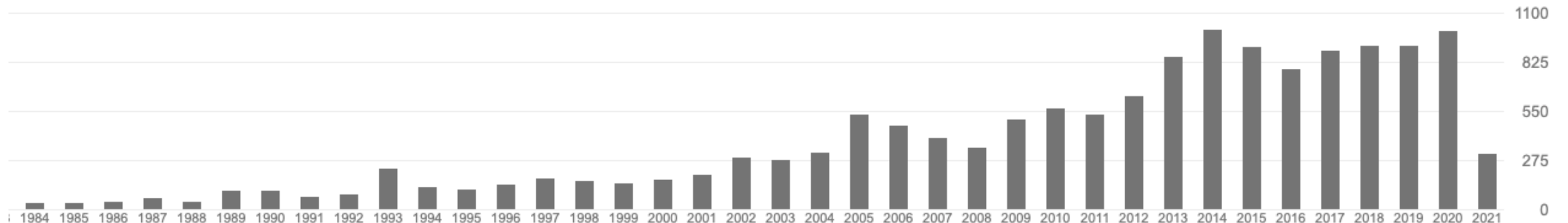
Journals:

Select	Field: Source Titles	Record Count	% of 183	Bar Chart
<input type="checkbox"/>	GEOPHYSICAL JOURNAL INTERNATIONAL	20	10.929 %	■
<input type="checkbox"/>	JOURNAL OF GEOPHYSICAL RESEARCH SOLID EARTH	19	10.383 %	■
<input type="checkbox"/>	CANADIAN JOURNAL OF EARTH SCIENCES	14	7.650 %	■
<input type="checkbox"/>	PHYSICS OF THE EARTH AND PLANETARY INTERIORS	13	7.104 %	■
<input type="checkbox"/>	GEOPHYSICS	12	6.557 %	■
<input type="checkbox"/>	LITHOS	11	6.011 %	■
<input type="checkbox"/>	GEOPHYSICAL RESEARCH LETTERS	10	5.464 %	■
<input type="checkbox"/>	GEOCHEMISTRY GEOPHYSICS GEOSYSTEMS	9	4.918 %	■
<input type="checkbox"/>	GEOLOGY	7	3.825 %	■
<input type="checkbox"/>	TECTONOPHYSICS	7	3.825 %	■
<input type="checkbox"/>	EARTH AND PLANETARY SCIENCE LETTERS	6	3.279 %	■
<input type="checkbox"/>	JOURNAL OF GEOMAGNETISM AND GEOELECTRICITY	6	3.279 %	■
<input type="checkbox"/>	GEOPHYSICAL JOURNAL OF THE ROYAL ASTRONOMICAL SOCIETY	4	2.186 %	■

My own citation record...

Citations (Google Scholar):

	All	Since 2016
Citations	14856	4826
h-index	63	34
i10-index	191	117



I have 14,856 citations to 200 papers = 75 citations/paper

(Av. Number citations/paper in Geosciences = 9.5)

I have a h-index of 63 (63 papers with 63 or more citations)

I have an i10-index of 191 (191 papers with 10 or more citations)

My own citation record...

Top 15 papers:

1, 3, 6, 10, 12 – Tibet

2, 5, 9 – methodology

4 – MT book

7, 13, 14, 15 – reviews

11 – EMSLAB

Partially molten middle crust beneath southern Tibet: synthesis of project INDEPTH results	1254	1996
<small>KD Nelson, W Zhao, LD Brown, J Kuo, J Che, X Liu, SL Klemperer, ... Science 274 (5293), 1684-1688</small>		
Multisite, multifrequency tensor decomposition of magnetotelluric data	507	2001
<small>GW McNeice, AG Jones Geophysics 66 (1), 158-173</small>		
Detection of widespread fluids in the Tibetan crust by magnetotelluric studies	496	2001
<small>W Wei, M Unsworth, A Jones, J Booker, H Tan, D Nelson, L Chen, S Li, ... Science 292 (5517), 716-719</small>		
The magnetotelluric method: Theory and practice	492	2012
<small>AD Chave, AG Jones Cambridge University Press</small>		
Static shift of magnetotelluric data and its removal in a sedimentary basin environment	447	1988
<small>AG Jones Geophysics 53 (7), 967-978</small>		
Crustal rheology of the Himalaya and Southern Tibet inferred from magnetotelluric data	435	2005
<small>MJ Unsworth, AG Jones, W Wei, G Marquis, SG Gokarn, JE Spratt Nature 438 (7064), 78-81</small>		
Electrical conductivity of the continental lower crust	410 *	1992
<small>AG Jones Continental lower crust, 81-143</small>		
The elusive lithosphere–asthenosphere boundary (LAB) beneath cratons	363	2009
<small>DW Eaton, F Darbyshire, RL Evans, H Grütter, AG Jones, X Yuan Lithos 109 (1-2), 1-22</small>		
A comparison of techniques for magnetotelluric response function estimation	280	1989
<small>AG Jones, AD Chave, G Egbert, D Auld, K Bahr Journal of Geophysical Research: Solid Earth 94 (B10), 14201-14213</small>		
Electrically conductive crust in southern Tibet from INDEPTH magnetotelluric surveying	264	1996
<small>L Chen, JR Booker, AG Jones, N Wu, MJ Unsworth, W Wei, H Tan Science 274 (5293), 1694-1696</small>		
Resistivity cross section through the Juan de Fuca subduction system and its tectonic implications	229	1989
<small>PE Wannamaker, JR Booker, AG Jones, AD Chave, JH Filloux, HS Waff, ... Journal of Geophysical Research: Solid Earth 94 (B10), 14127-14144</small>		
Partial melt or aqueous fluid in the mid-crust of Southern Tibet? Constraints from INDEPTH magnetotelluric data	219	2003
<small>S Li, MJ Unsworth, JR Booker, W Wei, H Tan, AG Jones Geophysical Journal International 153 (2), 289-304</small>		
Imaging the continental upper mantle using electromagnetic methods	206	1999
<small>AG Jones Developments in geotectonics 24, 57-80</small>		
MT and reflection: an essential combination	198	1987
<small>AG Jones Geophysical Journal International 89 (1), 7-18</small>		
The problem of current channelling: a critical review	162	1983
<small>AG Jones Geophysical surveys 6 (1), 79-122</small>		

Published papers in “magnetotellurics”

From Thomson-Reuters Web of Science (6th April, 2021)

Search terms: “magneto-telluric* or magnetotelluric*”

Number of papers: 4,722

Number of citations to those papers: 75,694

Number of citing articles: 26,042

Citations per paper: 16.0

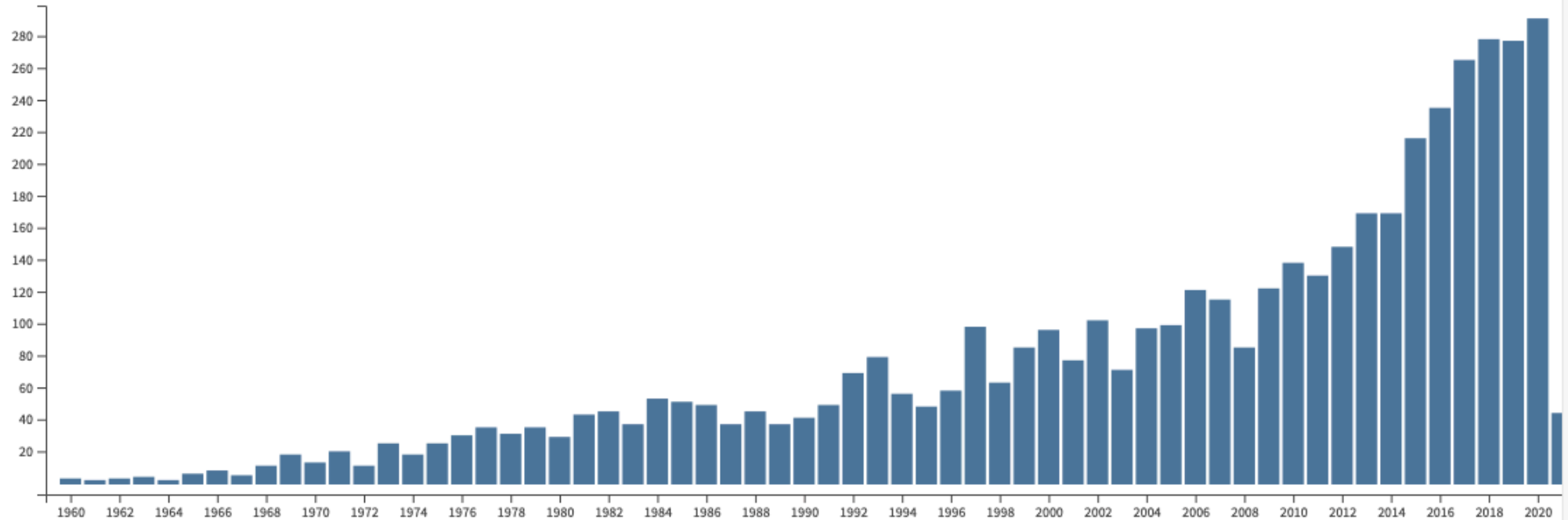
This is higher than the average of 9.5 citations/paper for the whole of the geosciences. So papers with MT are cited more than average for the geosciences

Citations per MT paper in May, 2016 was 12.8 (3,345 papers and 42,715 citations).

Publication rate for papers in “magnetotellurics”

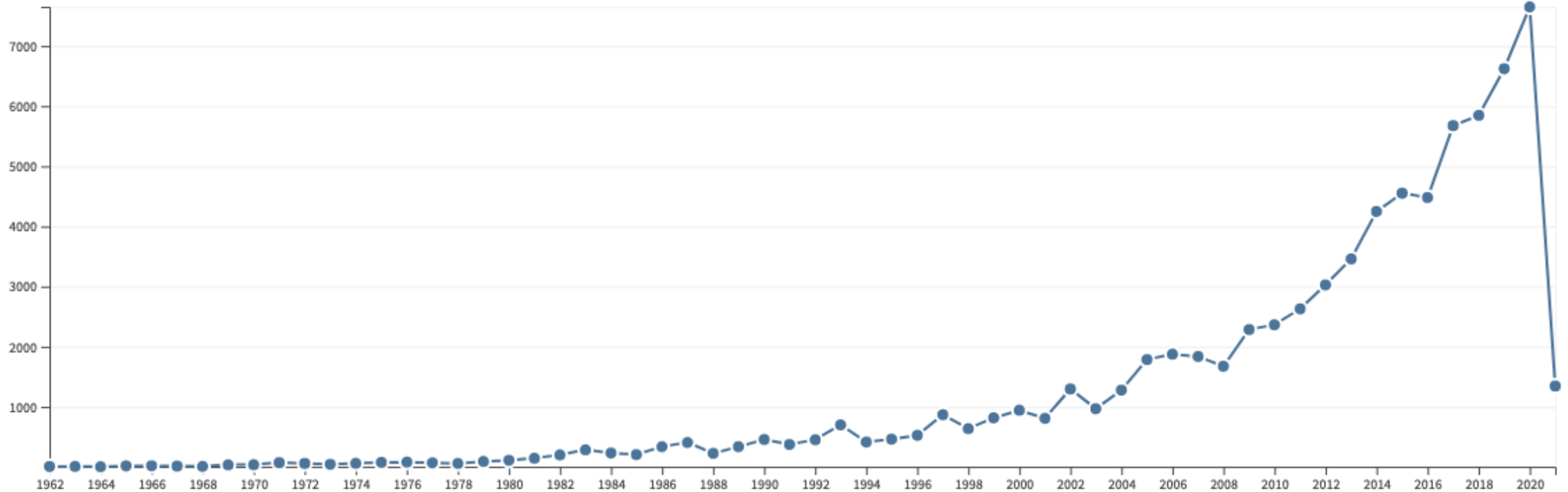
Total Publications

4,722 [Analyze](#)



Citations for papers in “magnetotellurics”

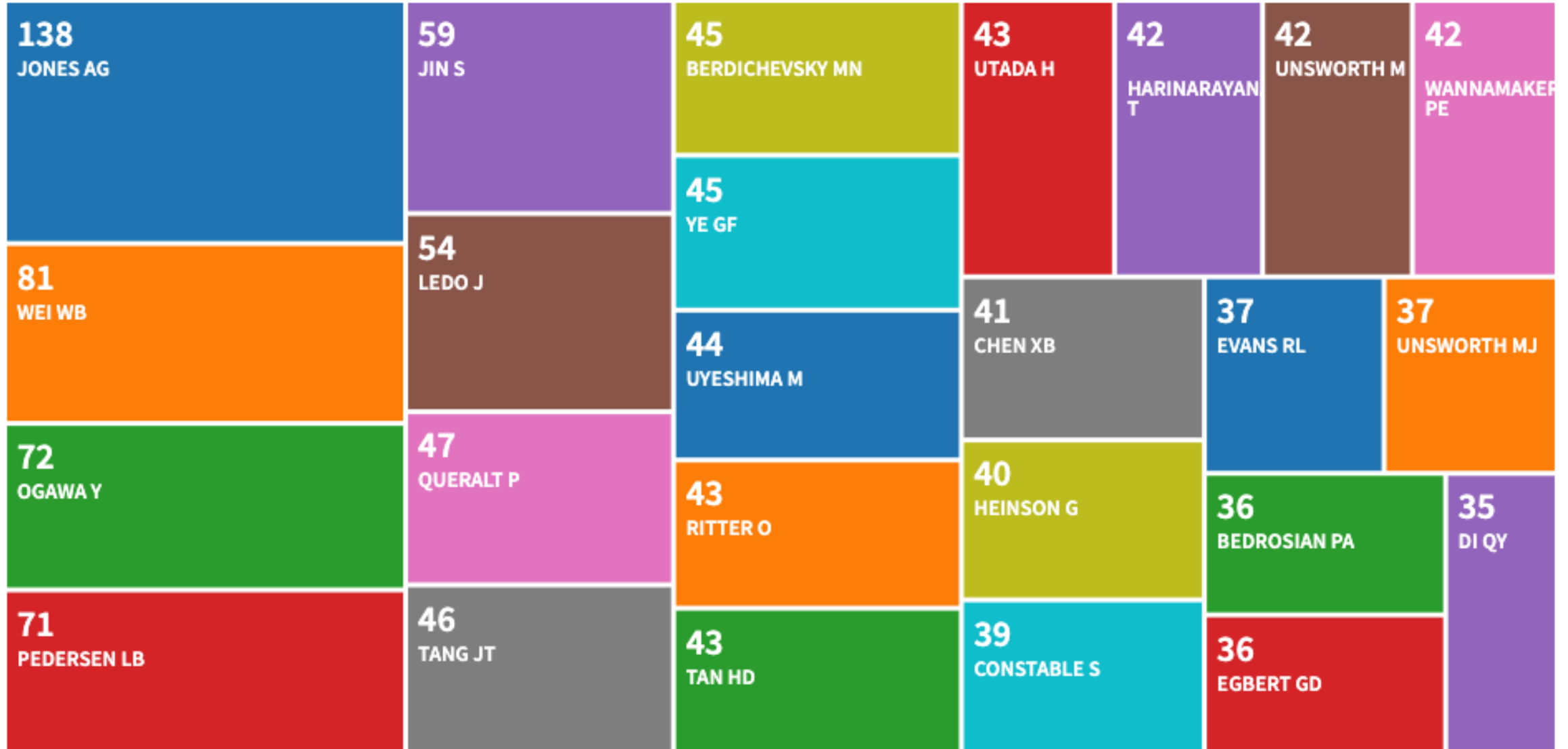
Sum of Times Cited per Year



Exponentially increasing!!! MT papers are being cited more and more often

Magnetotellurics is a field that is becoming more-and-more relevant

Top authors in “magnetotellurics”



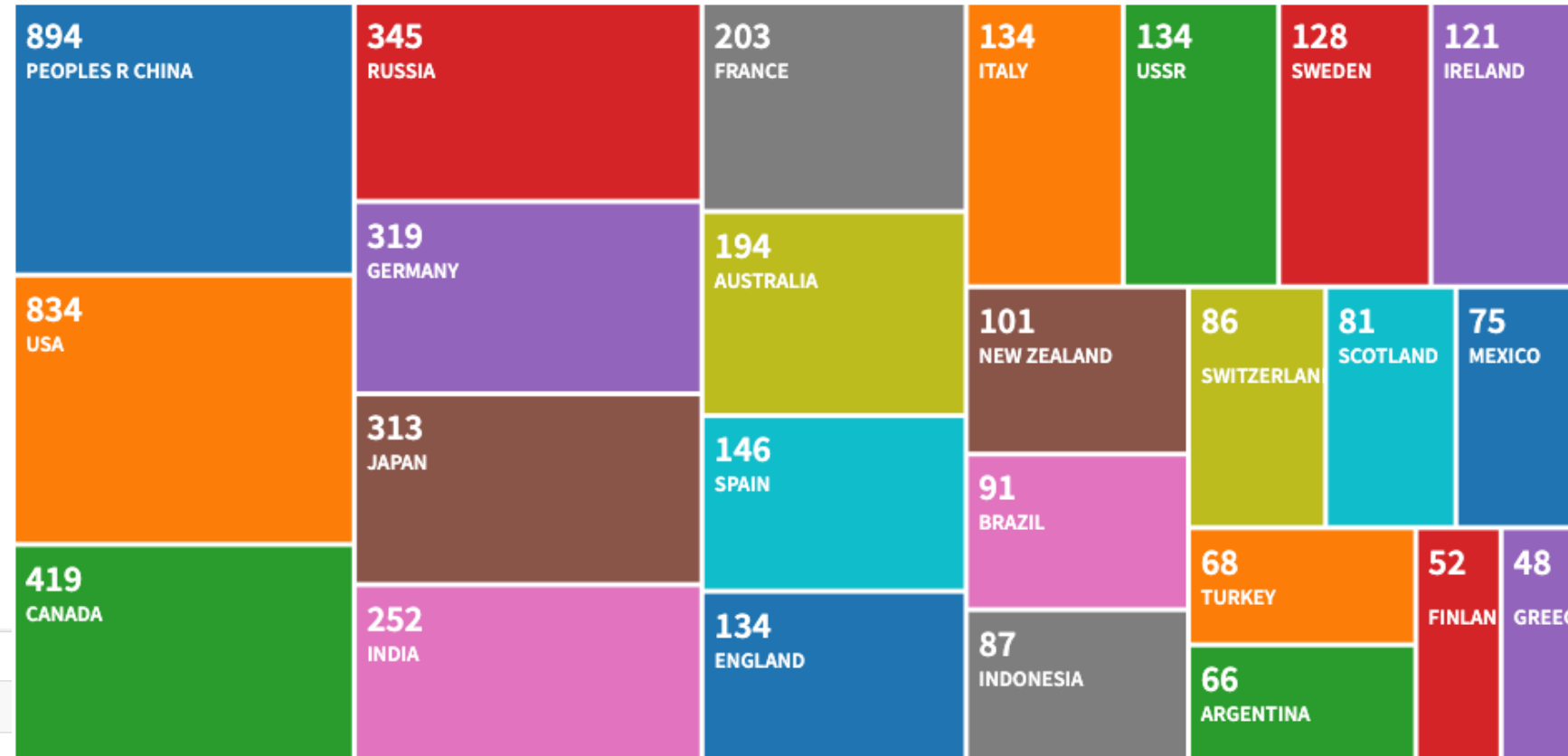
Top journals in “magnetotellurics”



Top countries in “magnetotellurics” publishing

China is now 1st in numbers of papers published in MT

Of the 894 papers written by Chinese first-author scientists, 288 (32%) are in Chinese..



ENGLISH	4,201
CHINESE	288
RUSSIAN	178
FRENCH	33
UKRAINIAN	9
SPANISH	4
GERMAN	3

Those 288 papers are not globally accessible.

Top countries in geoscience publishing

China is 1st in numbers of geoscience papers published, but 18th in citations per paper !!!

Chinese geoscience is – for the most part – at global levels, both in terms of the quality of the science and of the global nature of the problems addressed. **So what is the problem???**

The problem is the accessibility of Chinese geoscience to non-Chinese scientists...

1. Published in Chinese, or
2. Published in non-mainstream western journals, or
3. Published in mainstream western journals but paper is “less accessible” (science, language) than western papers, or
4. Published in mainstream journals but not set in a global context

Rank	Country	Papers	Citations	Cites per paper
1	USA	88,546	1,247,282	14.09
2	ENGLAND	24,738	352,499	14.25
3	GERMANY	26,276	340,818	12.97
4	FRANCE	22,991	286,625	12.47
5	CANADA	18,669	205,351	11.00
6	PEOPLES R CHINA	26,662	186,998	7.01
7	AUSTRALIA	13,451	169,840	12.63
8	JAPAN	17,200	162,560	9.45
9	ITALY	14,051	137,707	9.80
10	SWITZERLAND	7,477	118,288	15.82
11	NETHERLANDS	6,854	93,298	13.61
12	RUSSIA	19,508	77,300	3.96
13	SPAIN	8,074	71,701	8.88
14	SWEDEN	5,102	64,383	12.62
15	NORWAY	5,310	61,263	11.54
16	DENMARK	3,422	49,101	14.35
17	SCOTLAND	3,957	45,975	11.62
18	INDIA	9,108	44,908	4.93
19	NEW ZEALAND	3,388	38,428	11.34
20	BELGIUM	3,201	38,051	11.89

Top papers in “magnetotellurics”

What can we learn from list of top 10 papers?

1, 6, 9) Spectacular novel interpretation of Tibetan Plateau

2-5, 7-8, 10) Methodology development

8) Review paper (Vozoff, 1972)

Together with my own papers, to get high citations (=high measurable impact), then papers must be either:

- Methodology (a **new** idea!), or
- Spectacular result in an area of global interest (esp. one that has impact outside MT!), or,
- Review (this is for more established scientists)

7th April, 2021 - EMinar

Partially molten middle crust beneath southern Tibet: Synthesis of project INDEPTH results

By: Nelson, KD; Zhao, WJ; Brown, LD; et al.
SCIENCE Volume: 274 Issue: 5293 Pages: 1684-1688 Published: DEC 6 1996

OCCAM INVERSION TO GENERATE SMOOTH, 2-DIMENSIONAL MODELS FROM MAGNETOTELLURIC DATA

By: DEGROOTHEDLIN, C; CONSTABLE, S
GEOPHYSICS Volume: 55 Issue: 12 Pages: 1613-1624 Published: DEC 1990

Nonlinear conjugate gradients algorithm for 2-D magnetotelluric inversion

By: Rodi, W; Mackie, RL
GEOPHYSICS Volume: 66 Issue: 1 Pages: 174-187 Published: JAN-FEB 2001

DECOMPOSITION OF MAGNETOTELLURIC IMPEDANCE TENSORS IN THE PRESENCE OF LOCAL 3-DIMENSIONAL GALVANIC DISTORTION

By: GROOM, RW; BAILEY, RC
JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH AND PLANETS Volume: 94 Issue: B2 Pages: 1913-1925 Published: FEB 10 1989

The magnetotelluric phase tensor

By: Caldwell, TG; Bibby, HM; Brown, C
GEOPHYSICAL JOURNAL INTERNATIONAL Volume: 158 Issue: 2 Pages: 457-469 Published: AUG 2004

MAGNETOTELLURICS WITH A REMOTE MAGNETIC REFERENCE

By: GAMBLE, TD; CLARKE, J; GOUBAU, WM
GEOPHYSICS Volume: 44 Issue: 1 Pages: 53-68 Published: 1979

Crustal deformation of the eastern Tibetan plateau revealed by magnetotelluric imaging

By: Bai, Denghai; Unsworth, Martyn J.; Meju, Max A.; et al.
NATURE GEOSCIENCE Volume: 3 Issue: 5 Special Issue: SI Pages: 358-362 Published: MAY 2010

MAGNETOTELLURIC METHOD IN EXPLORATION OF SEDIMENTARY BASINS

By: VOZOFF, K
GEOPHYSICS Volume: 37 Issue: 1 Pages: 98 -+ Published: 1972

Detection of widespread fluids in the Tibetan crust by magnetotelluric studies

By: Wei, WB; Unsworth, M; Jones, A; et al.
SCIENCE Volume: 292 Issue: 5517 Pages: 716-718 Published: APR 27 2001

INTERPRETATION OF THE MAGNETOTELLURIC IMPEDANCE TENSOR - REGIONAL INDUCTION AND LOCAL TELLURIC DISTORTION

By: BAHR, K
JOURNAL OF GEOPHYSICS-ZEITSCHRIFT FUR GEOPHYSIK Volume: 62 Issue: 2 Pages: 119-127 Published: 1988

53	41	46	51	5	942	36.23
45	50	55	54	11	856	26.75
60	62	52	48	8	791	37.67
26	25	29	19	5	601	18.21
43	53	61	74	8	500	27.78
35	29	28	34	9	479	11.14
52	50	60	64	8	437	36.42
15	10	7	11	6	365	7.30
26	20	22	27	1	338	16.10
12	12	18	19	1	329	9.68

Strategy – Step 0

Zeroeth step – Do the work!!!

- Make sure you have the bulk of the work done, at least 90% of it, before you start writing – there will be some iteration as you write...
- Do everything – survey design, acquisition, processing, analysis, modelling/inversion, interpretation, to the very, very best quality you can, and that your work is at the cutting edge of global effort. Any failings in any of them will seriously hamper your publication process (you are “selling” a complete package when you try to publish)

Strategy – Step 1

First step – make sure you have a “story”

- Have you done anything of likely interest to anyone else?
- Will anyone care?
- Are you adding to the body of knowledge?

Strategy – Step 2

Second step – what is your “story” and who is your intended audience

- Is it a new method?
- Is it a new (novel?) result/interpretation?
- Is it multi-disciplinary?
- Is it a report on an experiment (lab, field)?

The answer dictates the likely journal you should aim for...

Strategy – Step 3.1

Third step – choose your journal

Personal view:

Top ranked: Nature, Nature Geoscience, Science

Next ranked: JGR-SE, GJI, GRL, EPSL, G-cubed, Tectonics, Precambrian Research, Lithos, Geology, Geophysics

Third ranked: PEPI, Tectonophysics, Terra Nova, Solid Earth

Fourth ranked: “Local” national journals – Can J Earth Sci, J Asian Earth Sciences, J African Earth Sciences

Quality of manuscript has to match quality of the journal

Pick the journal depending on your intended audience!!!

You are in competition for other people’s time – you want them to spend their precious “free” time to read YOUR paper rather than someone else’s

Strategy – Step 3.1

Third step – choose your journal

Remember journal “Impact Factors” and “Eigenfactor scores*”

Aim for the most appropriate journal for your intended audience with the highest Impact Factor/Eigenfactor

Median IF in geoscience journals = 1.6 (Q3=4.5) Cited half-life = 8.5 years

Is speed important? If so, go with a speedy journal (G-cubed, EPSL, GRL, Geology)

Is Open Access important? Can you afford it with a for-profit journal? If not, aim for a not-for-profit journal (Solid Earth, EPS, *AGU**)

*The Eigenfactor score is intended to measure the importance of a journal to the scientific community, by considering the origin of the incoming citations, and is thought to reflect how frequently an average researcher would access content from that journal – see www.eigenfactor.org

Strategy – Step 3.1

Main “MT” journals ranked by Impact Factor:

Nature: 29.6

Science: 24.2

Reviews of Geophysics: 22.1

Nature Geoscience: 13.2

Earth Science Reviews: 11.6

Surveys in Geophysics: 5.7

EPSL: 5.5

Geology: 5.3

GRL: 5.1

Precambrian Research: 5.0

Tectonics: 4.6

JGR-SE: 4.5

Geothermics: 4.3

G-cubed: 3.8

J Asian Earth Sciences: 3.8

Geophysics: 3.2

Solid Earth: 3.2

Terra Nova: 3.0

GJI: 2.9

Physics & Chemistry of the Earth: 2.8

PEPI: 2.4

Canadian J Earth Sciences: 1.5

Get IF from: <https://www.scijournal.org/categories/earth-and-planetary-sciences>

Strategy – Step 3.1

Main “MT” journals ranked by EigenFactor score:

Nature: 1.44

Science: 1.32

JGR-SE: 0.31

GRL: 0.19

EPSL: 0.10

Nature Geoscience: 0.087

Geology: 0.053

GJI: 0.045

Tectonophysics: 0.033

G-cubed: 0.032

Lithos: 0.029

Earth Science Reviews: 0.022

J Asian Earth Sciences: 0.018

Geophysics: 0.017

PEPI: 0.014

Reviews of Geophysics: 0.012

Pure & Applied Geophysics: 0.007

J Applied Geophysics: 0.006

Surveys in Geophysics: 0.006

Canadian J Earth Sciences: 0.004

Solid Earth: 0.002

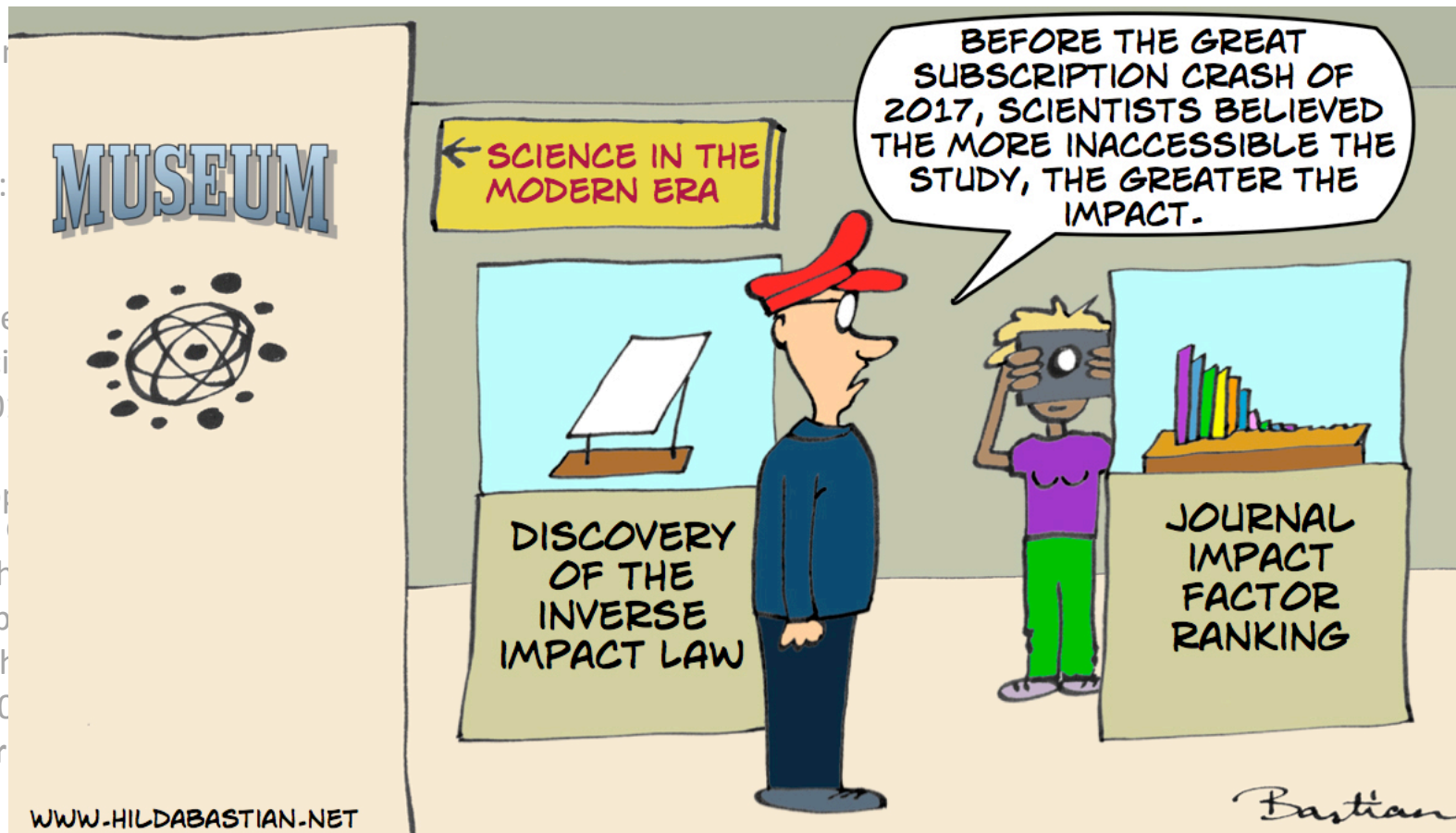
Get eigenfactor score from <http://www.eigenfactor.org>

*The Eigenfactor score is intended to measure the importance of a journal to the scientific community, by considering the origin of the incoming citations, and is thought to reflect how frequently an average researcher would access content from that journal – see www.eigenfactor.org

Strategy – Step 3.1

Main “
Nature:
Science:
JGR-SE:
GRL: 0.1
EPSL: 0.10
Nature Geosci
Geology: 0.053
GJI: 0.045
Tectonophysics:
G-cubed: 0.032
Lithos: 0.029
Earth Science Re
J Asian Earth Sci
Geophysics: 0.0
PEPI: 0.014
Reviews of Geop
Pure & Applied
J Applied Geoph
Surveys in Geop
Canadian J Earth
Solid Earth: 0.00
Get eigenfactor

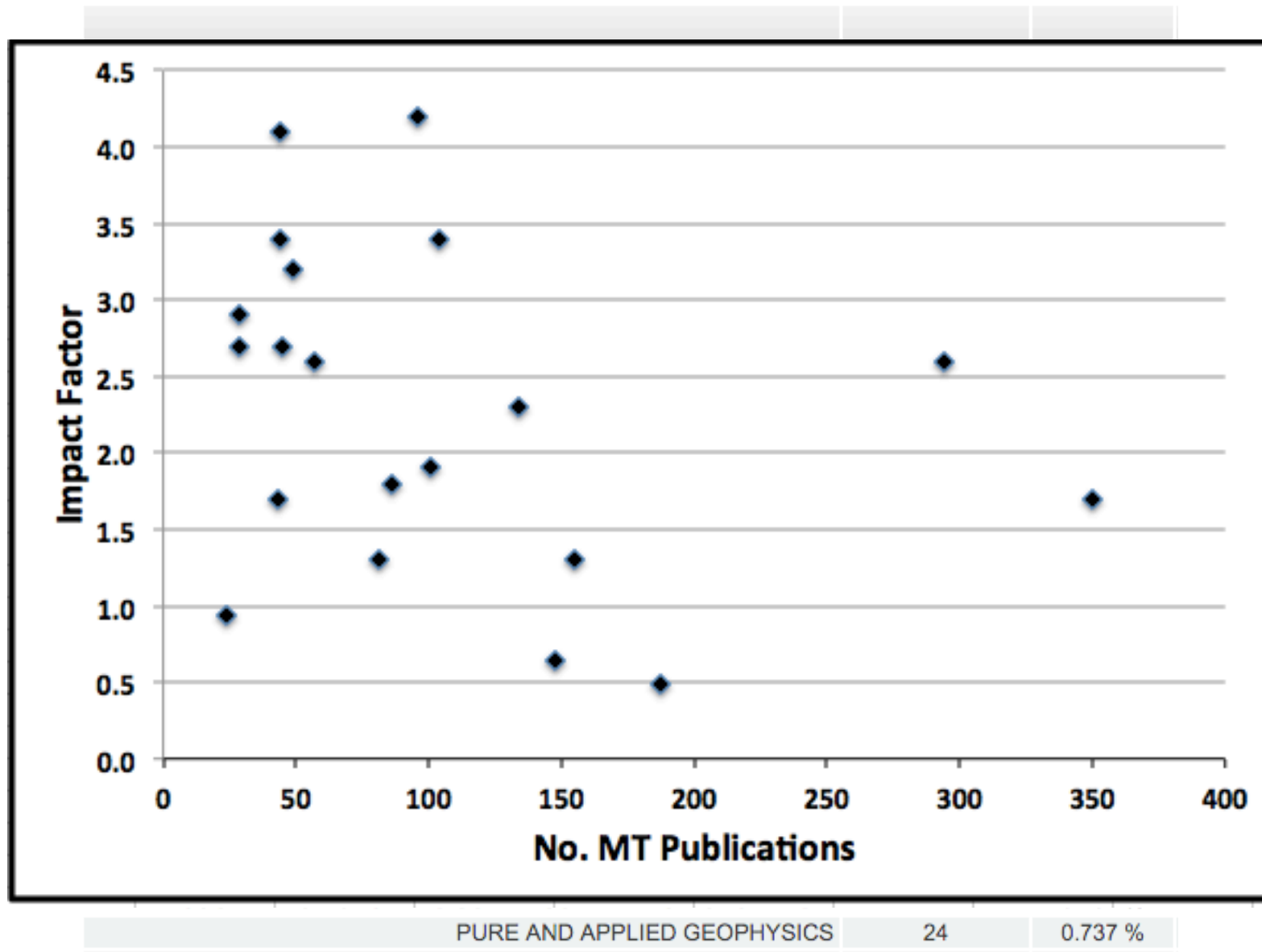
But don't be totally focussed on IF and EF! In this “new world” things are changing rapidly, and Open Access in not-for-profit journals is seen as far more important than publishing in for-profit journals



Top journals in “magnetotellurics”

Field: Source Titles	Record Count	% of 3255
GEOPHYSICS	350	10.753 %
GEOPHYSICAL JOURNAL INTERNATIONAL	294	9.032 %
CHINESE JOURNAL OF GEOPHYSICS CHINESE EDITION	148	4.547 %
PHYSICS OF THE EARTH AND PLANETARY INTERIORS	134	4.117 %
JOURNAL OF GEOPHYSICAL RESEARCH SOLID EARTH	104	3.195 %
IZVESTIYA PHYSICS OF THE SOLID EARTH	101	3.103 %
TECTONOPHYSICS	101	3.103 %
GEOPHYSICAL RESEARCH LETTERS	96	2.949 %
IZVESTIYA AKADEMII NAUK SSSR FIZIKA ZEMLI	87	2.673 %
GEOPHYSICAL PROSPECTING	86	2.642 %
EARTH PLANETS AND SPACE	84	2.581 %
JOURNAL OF APPLIED GEOPHYSICS	81	2.488 %
JOURNAL OF GEOMAGNETISM AND GEOELECTRICITY	71	2.181 %
GEOPHYSICAL JOURNAL OF THE ROYAL ASTRONOMICAL SOCIETY	57	1.751 %
SURVEYS IN GEOPHYSICS	49	1.505 %
TRANSACTIONS AMERICAN GEOPHYSICAL UNION	48	1.475 %
JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH	45	1.382 %
EARTH AND PLANETARY SCIENCE LETTERS	44	1.352 %
JOURNAL OF GEOPHYSICAL RESEARCH	44	1.352 %
CANADIAN JOURNAL OF EARTH SCIENCES	43	1.321 %
GEOCHEMISTRY GEOPHYSICS GEOSYSTEMS	29	0.891 %
GEOTHERMICS	29	0.891 %
FIZIKA ZEMLI	27	0.829 %
JOURNAL OF GEOPHYSICS ZEITSCHRIFT FUR GEOPHYSIK	24	0.737 %
PURE AND APPLIED GEOPHYSICS	24	0.737 %

Top journals in “magnetotellurics”



Strategy – Step 3.2

Third step – choose the most appropriate journal for your paper

Very personal view!!!

- Methodology – Geophys. J. Internat. (academic), Geophysics (applied), Computers & Geosciences (code)
- Spectacular novel result/interpretation – Nature, Nature Geoscience, Science
- High quality result/interpretation – JGR-SE, GRL, G-cubed
- Multi-disciplinary – G-cubed, Lithos, Geology, EPSL, Tectonics, Precambrian Research
- Experiment report, global interest – PEPI, Tectonophysics
- Experimental report, local interest – Can. J Earth Sci, Chin J Earth Sci
- Thematic – Geothermics, J Vol Geotherm Res., Applied – Geophysics, Geophysical Prospecting, PAGEOPH

Strategy – Step 3.3

Third – choose the most appropriate journal for the size of your paper:

- Short format – Nature, Nature Geoscience, Science, GRL, Geology
- Medium size – EPSL
- Full paper – JGR-SE, G-cubed

Short stories are often much harder to tell than long stories... MT in particular has trouble getting into Short Format journals as the reviewers demand so much justification of e.g. 3D inversion models

Strategy – Step 3.3

Third step – Do not go “cheap” when choosing the journal you will submit to!!!

i.e., choose a lower quality journal because you think it will be easier to get it published. Those journals have less readers → less chance of your paper having impact

You have spent a lot of your time and effort on planning fieldwork, acquiring data, processing, analysing, modelling and inverting data, so you owe it to yourself to aim as high as possible for your publication

Avoid conference publications – they are slow (depends on the slowest author), not read by the general geoscience community and tend to be lower overall quality as papers are accepted by the Invited Editors that would not be accepted in the usual way

Thematic issues (e.g. LAB theme in G-cubed) often have higher profile than normal, so can result in greater exposure. And can have a defined deadline for submission and revision.

AVOID predatory journals!!! No impact of papers published in them!

Strategy – Step 3.3

Third step – Do not go “cheap” when

i.e., choose a lower quality journal because journals have less readers → less chance

You have spent a lot of your time and effort analysing, modelling and inverting data, so your publication

<https://predatoryjournals.com/journals/>

the general geoscience community and to be invited by the Invited Editors that would not be a

Thematic issues (e.g. LAB theme in G-cub result in greater exposure. And can have :

LIMITED READERSHIP

Papers published in predatory journals five years ago have attracted few or no citations.

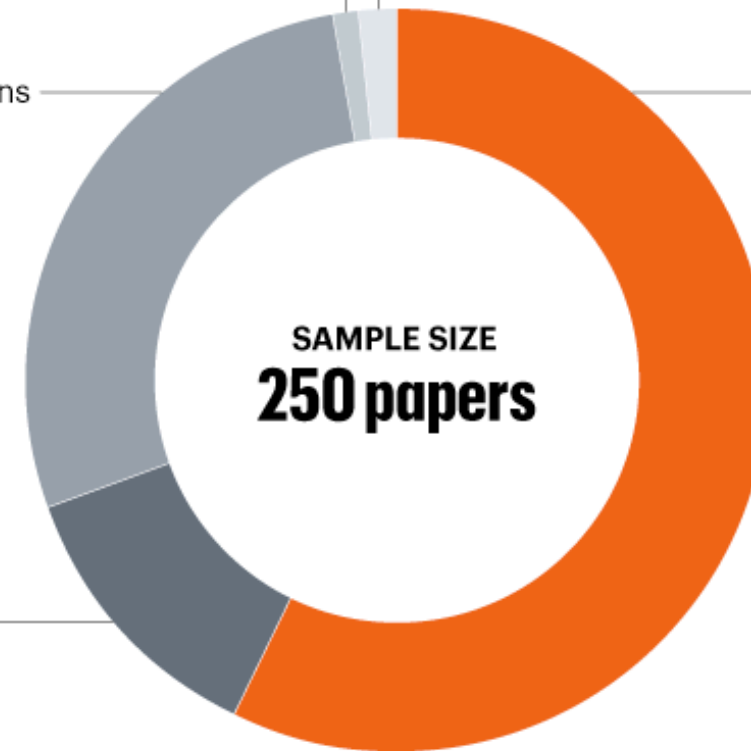
22–32 citations **1.6%**

11–21 citations **1.2%**

2–10 citations **24.8%**

1 citation **12.8%**

No citations **59.6%**



©nature

AVOID predatory journals!!! No impact of papers published in them!

Strategy – Step 3.4

Third step – once you have chosen the most appropriate journal for your paper, go on the journal's web site and download the “Instructions to Authors”

You must follow these instructions precisely!!! Do not give an Editor an opportunity to reject your paper based on anything other than the science.

Strategy – Step 4

Fourth step – Write a text outline in bullet form:

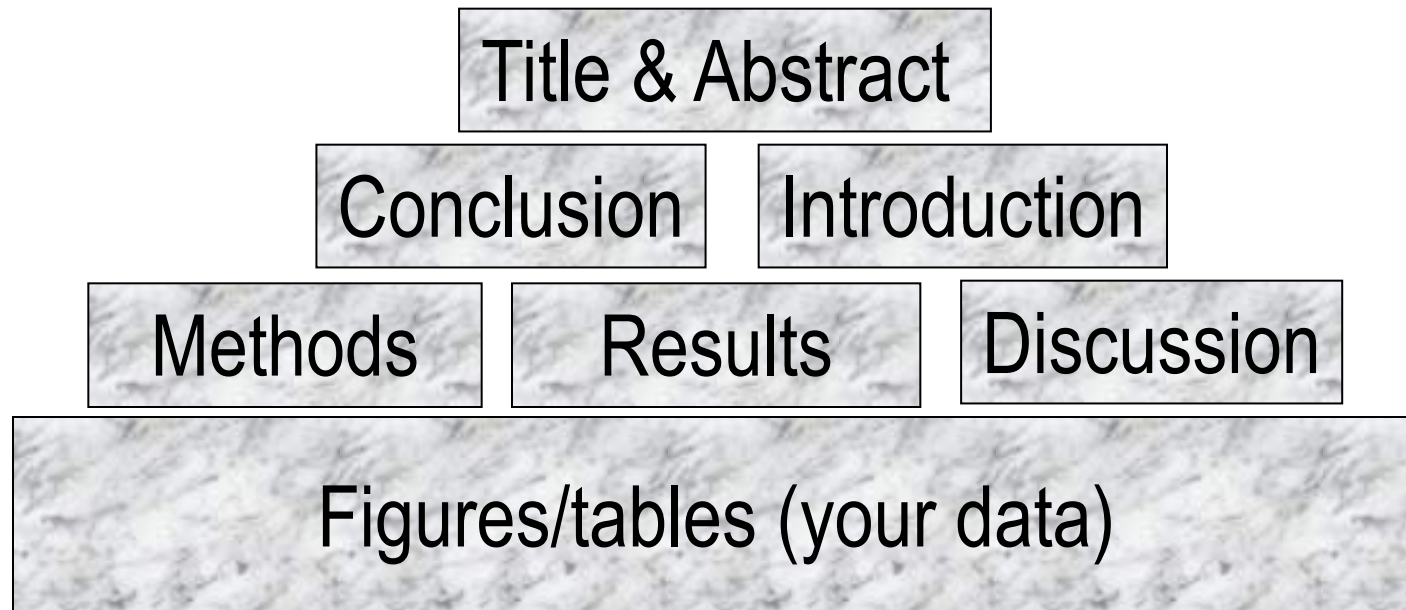
- Based on the outline, construct your figures and tables
 - Figures are far more important than the body of the text in attracting readers!!!
- DO NOT start at the beginning and write linearly to the end. Leave introduction, conclusions and especially abstract to last – they are the most important of all (and are first read by anyone thinking of investing their time on your paper) so demand the most focussed time and attention. And what you say in them will come out from what you write in the body of the paper
- Think of a creative/attractive title!
 - e.g. Parkinson's pointers' potential perfidy!

Strategy – Step 5

Fifth step – Write:

- Write the body of the paper
 - **DO NOT PLAGIARIZE!!!** (I know it is hard not to... especially if English is not first language) – Many journals use iThenticate and/or TurnItIn to check for plagiarism...
- Write the Introduction, Conclusions, and finally Abstract
- Especially very carefully write the Figure Captions – many people only read the abstract and look at the figures
- Check the spelling, grammar, sentence structure, citations, references, etc.
 - Do NOT write in poor English!
- Check it all again...
- Check it a third time...
- Check it until you are sick of checking it, then check it once more...
- Do NOT give Reviewers any cause to become frustrated or annoyed at the language usage or other non-science issues – Reviewers should focus on the science and only on the science, and not be distracted by poor language usage or other non-science issues

The process of writing – building the article



IMRaD Format

- **I** = Introduction, what question (problem) was studied
- **M** = Methods, how was the problem studied
- **R** = Results, what are the findings
- **a** = and
- **D** = Discussion, what do these findings mean

Abstract

Tell readers what you did and the important findings

- One paragraph (between 50-300 words) often plus Highlight bullet points
- Advertisement for your article
- **A clear abstract will strongly influence if your work is considered further – for review or if published for reading...**

Graphite intercalation compounds (GICs) of composition $C_xN(SO_2CF_3)_2 \cdot \delta F$ are prepared under ambient conditions in 48% hydrofluoric acid, using K_2MnF_6 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 to 500 h.

What has been done

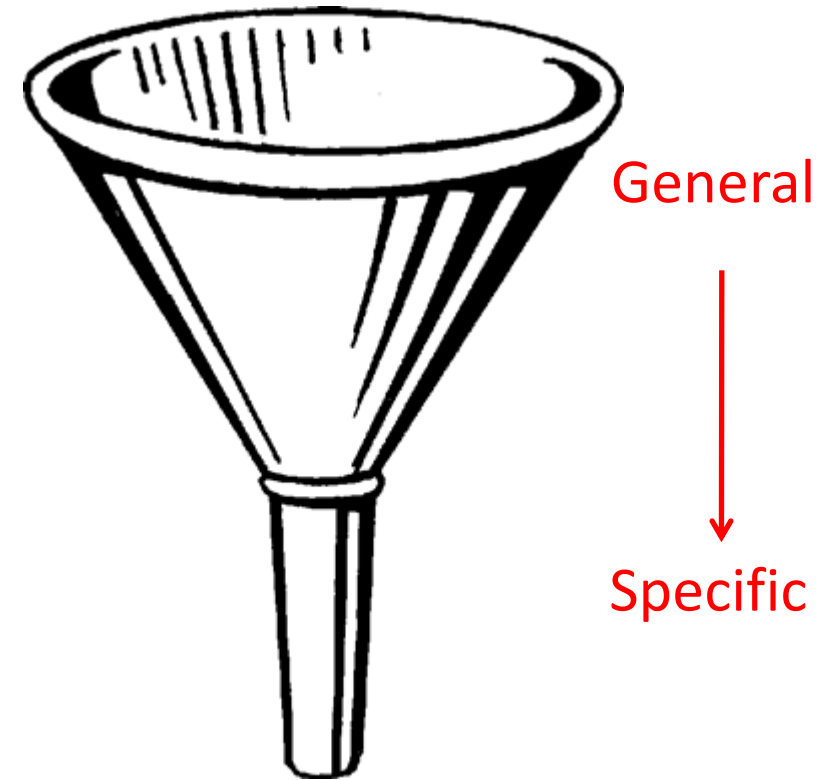
What are the main findings

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/most current?
- What is its main limitation?
- What do you hope to achieve?
- What do you want to convince the readers about



Eastern cf. Western rhetorical styles

You must recognise that there are differences between Eastern and Western rhetorical styles of writing (and thinking!) than are reflected in scientific writing.

To maximise that chances of being successful in publishing in Western Literature, you have to adopt the English Western style of writing (which is somewhat different from the Romance languages, French, Italian, Spanish)

Eastern cf. Western rhetorical styles

Main difference:

Western rhetoric: Instructional in style – writer’s responsibility to impart meaning

Writers take on primary responsibility for creating meaning; they have to spell everything out for the reader: main ideas, details and how the details connect to one another as well as to the main idea.

Eastern rhetoric: Didactic in style – reader’s responsibility to deduce meaning

The task of the writer is to stimulate the reader into contemplating the issue or issues that might not have been previously considered. Inductive “pattern of idea development in which there is a delayed introduction of purpose”. Main ideas are not strongly stated at the onset and while details are presented, direct connections between them and a main idea are not. This is to get “readers to think for themselves, to consider the observations made, and to draw their own conclusions.”

“Comparing Eastern and Western Rhetorical Thought” by Aggie Pinzon (2009) – free to download

Strategy – Step 6

Sixth – Internal review:

- Ask a colleague/co-author to review your draft paper in the harshest way possible (“Devil’s Advocate”)
 - Try to find an English-language Westerner who is willing to be a Devil’s Advocate
- Better to get really tough words from your colleagues/co-authors prior to review than tough words back from the Reviewers – that will kill the paper dead for that journal, and make it more difficult for other journals
- Note that it is far easier to exchange versions if you use the Track Changes and Comment features of Word – harder in LaTeX, but web tools exist now.
 - If my students/co-authors write in LaTeX, I get them to send me a Word version using LaTeX2Word (<http://www.grindeq.com/>) and I mark that Word version up (often the maths is lost, but that’s fine I can read the PDF of the LaTeX version)

Strategy – Step 7

Seventh step – Revise after internal review:

- Go through very very carefully and address all of your colleagues/co-authors criticisms
- Prepare final text
- Prepare final versions of your figures
 - Does the figure emphasize what you want it to? (perhaps a change of colour scale may bring out your points better)
 - make sure all localities appear on a map!
 - make sure text is legible
- Compile final PDF for submission

Strategy – Step 8

Eighth – Choose potential reviewers:

- Think about who would be good reviewers for your work, and also who may not be good reviewers...
- Suggest strong names (solid institutions) as potential reviewers
 - Note: Statistically reviewers from China are harder on papers of others from China than are non-Chinese reviewers!
 - (<https://www.elsevier.com/connect/is-peer-review-just-a-crapshoot>)
- Suggest especially names of those who appear in your reference list and of whose work you speak of highly...
- If multidisciplinary, give names from different areas of expertise
- Should be no conflicts-of-interest, i.e. Not from same institution (institutional conflict) and no collaboration within last say 5 years
- Avoid “poor” reviewers – these are ones who are slow, do a poor job, sloppy, or are very negative about anyone else’s work (examples are...)
 - Your “friends” may not be your friends when reviewing your manuscript!!!
- Choose the Editor of the journal of choice – again, pick carefully!

Strategy – Step 9

Ninth step – Write Letter to Editor explaining:

- Why this paper is worthy of publication – explain importance
- That it is all totally new and unpublished elsewhere before – or that XX% of it was published previously in journal YY
- That all co-authors approve submission of this version
- Why you chose his/her journal
- Why you are giving the names of the reviewers you think appropriate
- Why you are listing names of those you do not wish to review your paper for reasons of “conflict”

Strategy – Step 10

Tenth step – Submission:

- Submit via the journal's web portal
- **DO NOT SUBMIT A POOR PAPER!!!** Poor in terms of the science and/or of the English language usage and/or other issues (poor figures, poor referencing).
- DO NOT expect the reviewers to do your job for you!
 - As in expecting them to interpret your data or giving appropriate correlative examples
- If you submit a poor paper, you will not only have it rejected, but find that Editors and Reviewers have memory... you will find it harder to get other papers published with them
- A paper represents YOU. It makes a statement about YOU. About who YOU are as a scientist and as a person. You surely want it to be of high quality and of high integrity

Strategy – Step 11

Eleventh step – Wait:

- Wait for the reviews – or wait for the decision by the Editor that it will go out for review (this is true of Nature, Science, and Nature Geoscience)
- Whilst waiting, start your next paper...

Strategy – Step 11.5

Eleventh and a half step – Rejection by Editor:

- Far more often than not, your submission to Nature, Science, or Nature Geoscience will be rejected by the Editor without going out for Review
 - This can be really deflating to your morale – but 60% of Nature papers (2006 statistics) are rejected without review, Nature Geoscience 82% rejected without review (2012 statistics)
- Is there anything you can do about this? Can you challenge the Editor's decision?
- The answer is YES, but the process can be long and frustrating... and dubious whether it is worthwhile...

Story of A Paper...

Paper submitted to Nature Geoscience in May 2011

- Le Pape et al. – Kunlun Fault melt penetration

Rejected without going out for review by Amy Whitchurch
(Associate Editor)

Le Pape et al. paper

Whitcurch commented:

“In the present case, we have no doubt that your findings regarding penetrative intrusion of melt northwards from the Tibetan crust will be of inherent interest to fellow specialists. But I regret that we are unable to conclude that the paper provides the sort of firm conceptual advance in scientific understanding of the Tibetan-Himalayan orogen that would be likely to excite the immediate interest of researchers in a broad range of the geosciences.”

Le Pape et al. paper

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Le Pape et al. paper

I wrote to Whitchurch the same day quoting the very high citation rates for INDEPTH MT papers published in Nature and Science (as evidence of broad interest of results of MT in Tibet) and asked for reconsideration of her decision.

- 1) Nelson et al., 1996, Science, 274, 1684-1688. 444 citations
- 2) Chen et al., 1996, Science, 274, 1694-1696. 101 citations
- 3) Wei et al., 2001, Science, 292, 716-718. 113 citations
- 4) Unsworth et al., 2005, Nature, 438, 78-81. 72 citations

A response two months later that “in response to your letter, we have decided to send the paper out for review”

Tough reviews came back, that required a lot more work to be done that appears in the Supplementary Material. Finally accepted in March, 2012. Currently has 90 citations, which is NINE TIMES the IF of Nature Geoscience!

Story of another paper - Zhao et al.

Zhao et al. manuscript submitted to Nature Geoscience described MT measurements conducted immediately after the devastating Longmenshan earthquake of 2008.

Whitchurch comments: “Unfortunately, **we do not believe that the manuscript provides the sort of conceptual advance in scientific understanding that would be likely to excite the immediate interest of researchers in a broad range of other areas of the geosciences.**”

I composed a similar email as the Le Pape one that Prof. Zhao Guoze sent to Whitchurch asking for reconsideration.

Story of another paper - Zhao et al.

A response over two months later (72 days!) that “our view remains that your manuscript does not significantly advance our understanding of the processes responsible for the Wenchuan earthquake, or the evolution of the Longmen Shan topography more generally, beyond that shown in existing studies (**for example, Zhao et al., *Geologica Acta*, 8, 99-110, 2010**). We therefore cannot justify its publication in *Nature Geoscience*.”

(The important lesson here is that you cannot publish your results in short form then expect to get them out in long form later on... DO NOT waste your time publishing in low quality journals!!! It can harm you.)

Submitted to *Geology*, and eventually accepted (also taking 8 months...)

Currently has 151 citations, which is FIFTEEN TIMES the IF of *Nature Geoscience*! And 30x that of *Geology*

Story: *Nature Geoscience* (and *Nature and Science*) is looking for any reason to reject without review

Strategy – Step 12

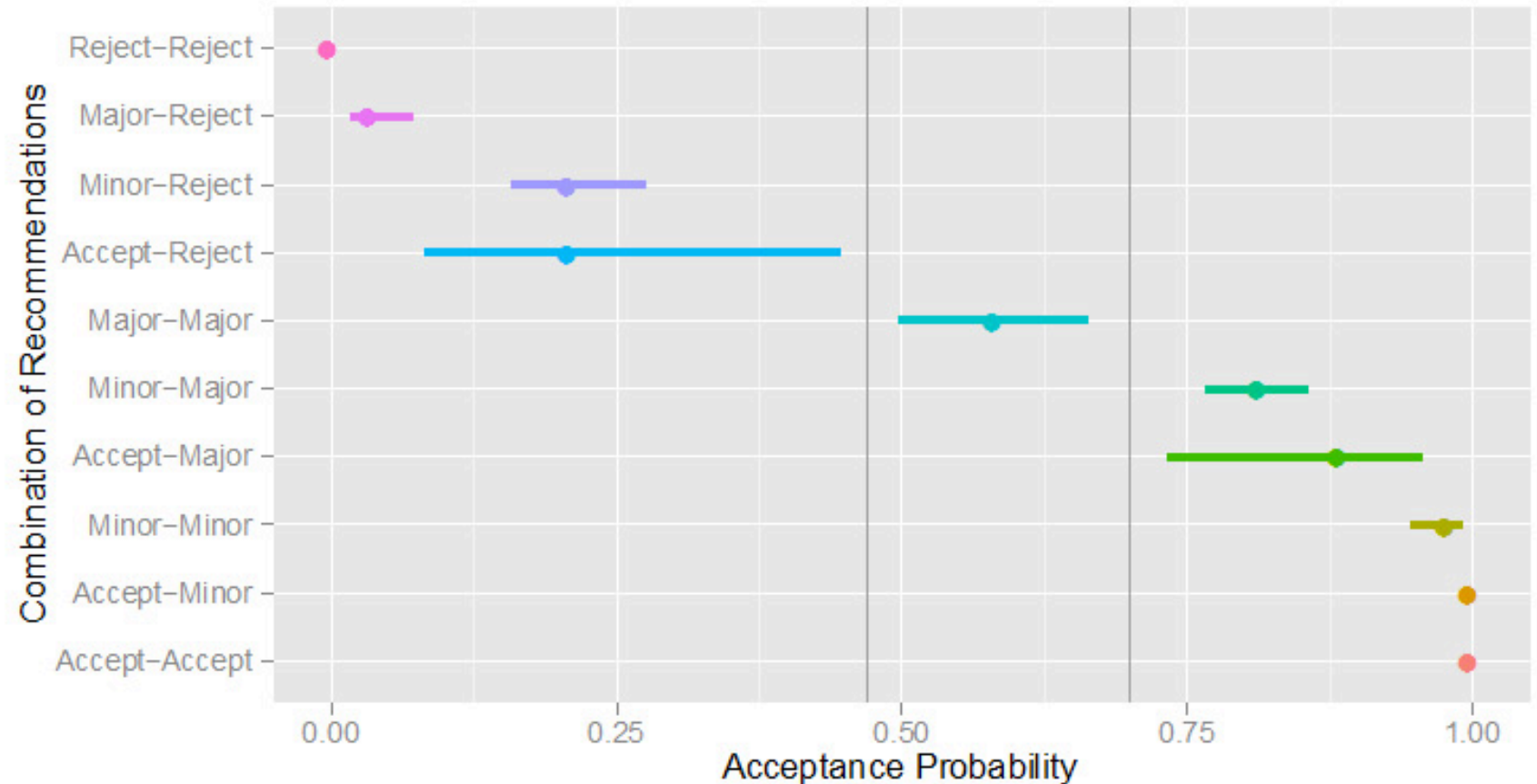
Twelfth step – Reviews:

- You will get back reviews of your paper, and hopefully it is not rejected, but is accepted subject to revision... Minor, (Moderate) or Major
- Note: Rare these days to get “Accepted but with Major Revision”. Journals want to have good statistics from submission to publication, so if a paper has Major Revision from the reviewers, it is often rejected with the comment that the journal would look favourably upon “a heavily revised version taking the comments of the reviewers into account...”

Strategy – Step 12

Twelfth step – Reviews:

Difficult to get beyond a “Reject” from one of the reviewers, so make sure your manuscript is too strong to get a Reject



Strategy – Step 13

Thirteenth step – Revision:

- Go through each and every comment made by the reviewers/Editor and provide a response to each one in a detailed manner – make it easy for the Editor to see that you have modified the manuscript in response to the reviews
- You do not have to agree with every comment/suggestion made by the reviewers, but remember that the system weighs the views of the Reviewers more heavily than yours (otherwise the system would fail...), so if you are going to oppose a reviewer, then you need very strong, unassailable arguments
- The reviewer is your friend (even if he/she isn't!), or at least think that way! The reviewer represents your intended audience
- DO NOT become annoyed and antagonistic towards reviewers comments and blame the reviewers – **if a reviewer misunderstood what you said, YOU didn't say it right!**

Strategy – Step 13

Thirteenth step – Revision:

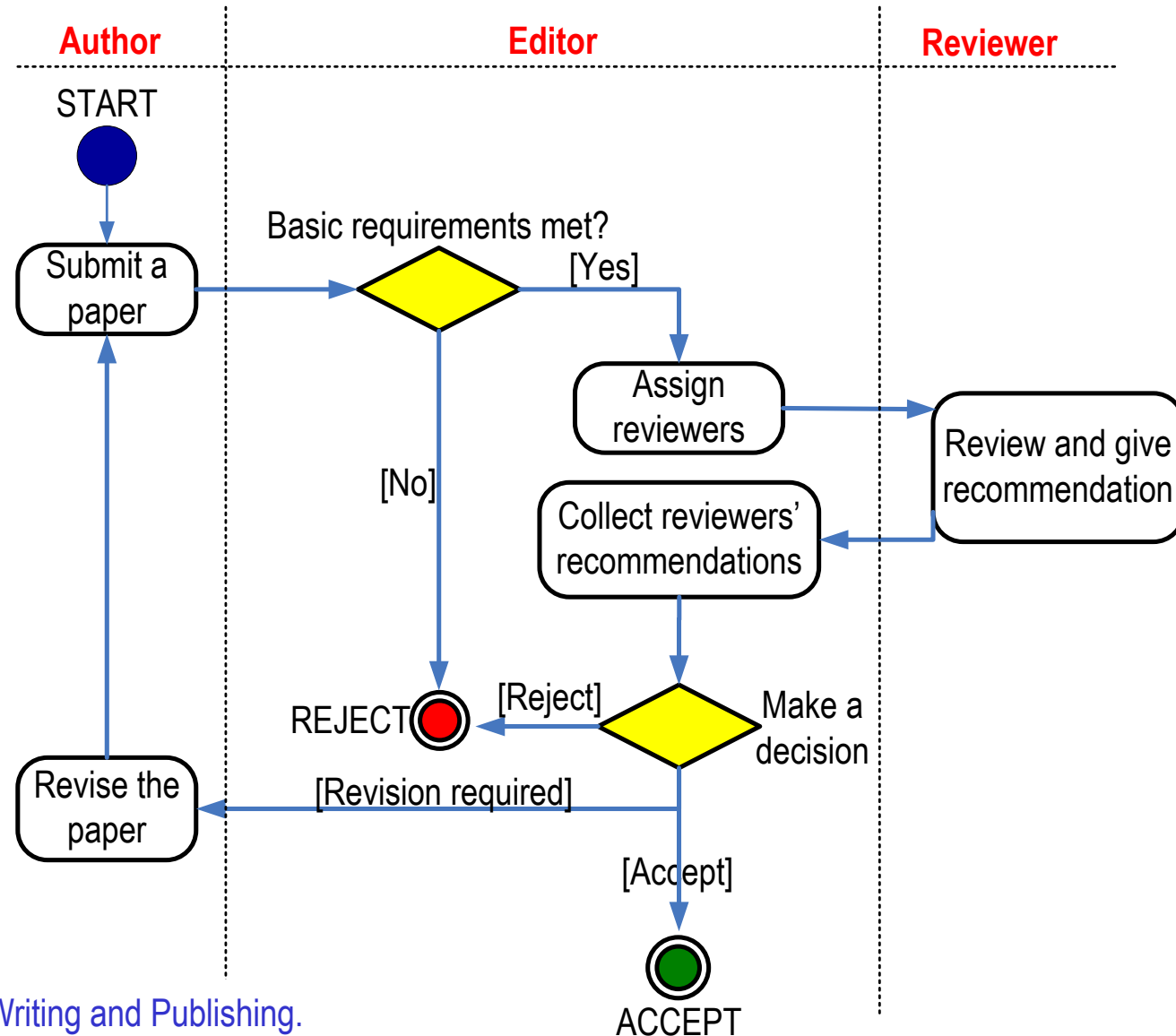
- What do you do with competing reviews?
- Take the views of the reviewer who YOU think is right for objective reasons.
 - Do not take the views of one reviewer over another for any other reason! Such as Seniority, Nationality, Collegiality
- Explain very carefully in your response to the Editor that there are these competing views, and you have chosen Reviewer A over Reviewer B because....

Strategy – Step 14

Fourteenth step – Submit Revised version:

- Submit your revised version together with
 - List of all comments made by reviewers and Editors and your responses to them
 - A PDF of the differences between the revised version and the original version (easy with Word, harder with LaTeX)
 - Letter to Editor stating you have heavily revised the manuscript to address the comments made by the reviewers and Editor
- Go back now to Step 11 (Wait) and iterate steps 11-14 until done...

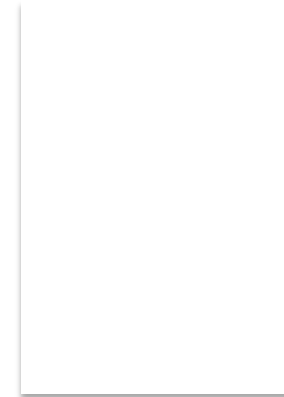
The Peer Review Process – not a black hole!



Strategy – Step 15

Fifteenth step – Acceptance:

Your Manuscript Has Been Accepted!



Other reading...

Campos-Arceiz et al. (2015):



Reviewer recommendations and editors' decisions for a conservation journal: Is it just a crapshoot? And do Chinese authors get a fair shot?

Ahimsa Campos-Arceiz^a, Richard B. Primack^{b,*}, Lian Pin Koh^c

^a School of Geography, University of Nottingham Malaysia Campus, Jalan Broga, Semenyih 43500, Selangor, Malaysia

^b Biology Department, Boston University, 5 Cummington Street, Boston, MA 02215, USA

^c Environment Institute, School of Biological Sciences, University of Adelaide, Adelaide, South Australia 5005, Australia

Discussed in: <https://www.elsevier.com/connect/is-peer-review-just-a-crapshoot>

Other material...

Springer e-learning modules on writing a journal paper:

<https://www.springer.com/us/authors-editors/authorandreviewertutorials>

Other reading...

Downloadable from: <http://slideplayer.com/slide/4864285/>

How to write a Great Paper and Get it Accepted by a Good Journal

From title to references
From submission to revision

Presented by: Anthony Newman
Elsevier, Amsterdam



Write quality publications!!!

*Poor experimentation cannot be
masked by brilliant writing; however,
poor writing can mask brilliant
experimentation*

GOOD LUCK!!!

幸運

But you make your own luck!!!

