

# How to Write an Effective Paper: An Editor's Perspective

Presented by: **Dr. Bo Cui**

**Executive Editor**

***Journal of Biomedical Research***

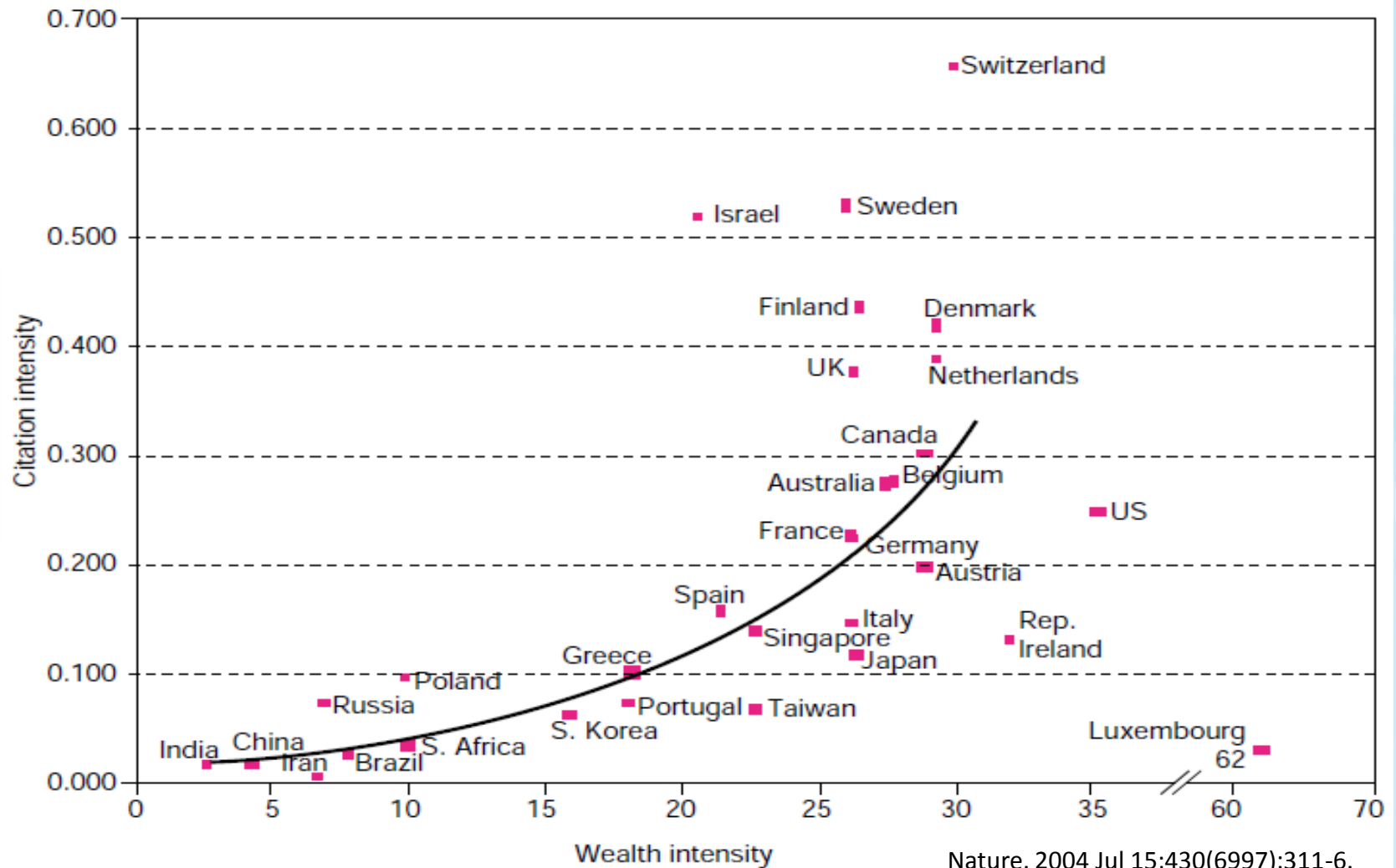
**Distinguished Professor**

***Nanjing Medical University***

Hangzhou, China

October 28, 2016

# The Scientific Impact of Nations

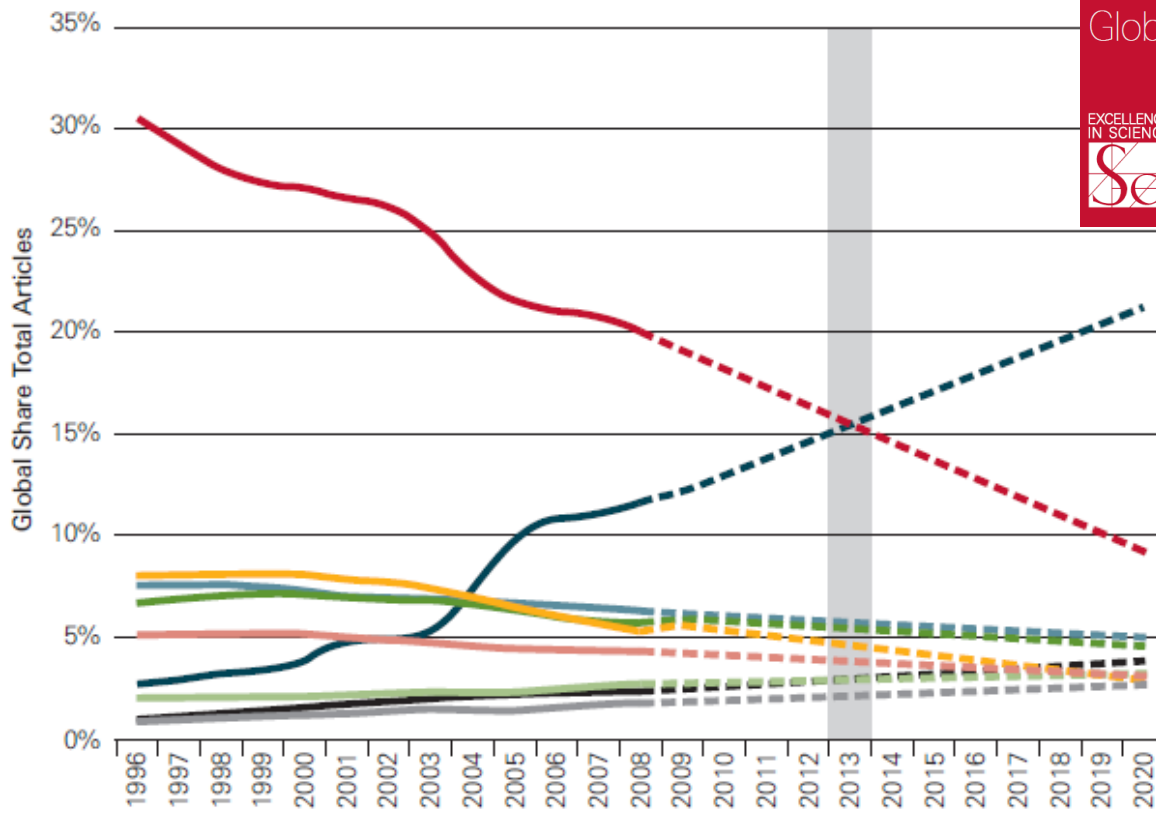




# China: The Publication Boom

Figure 1.6. **Linear extrapolation of future publication trends.**<sup>155</sup>

*The dotted lines indicate projections*

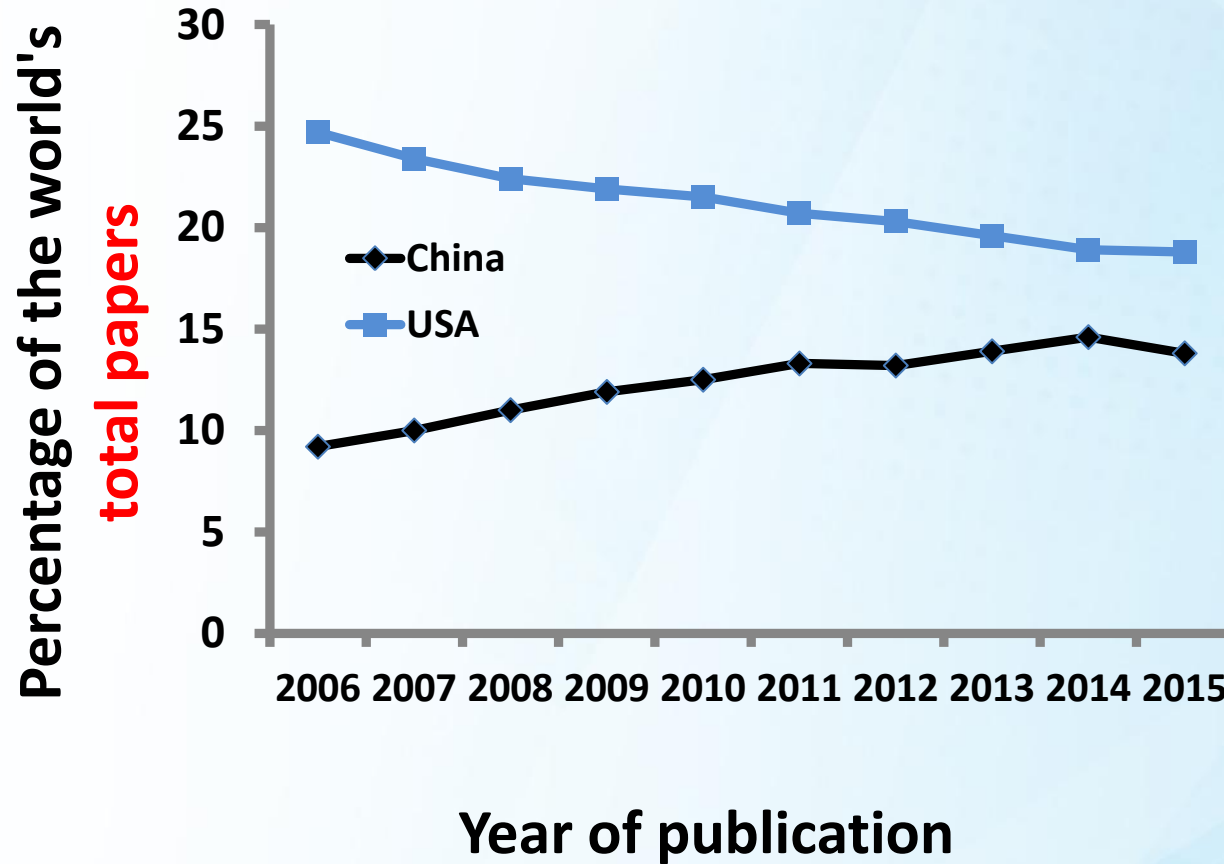


Knowledge, networks and nations  
Global scientific collaboration in the 21st century

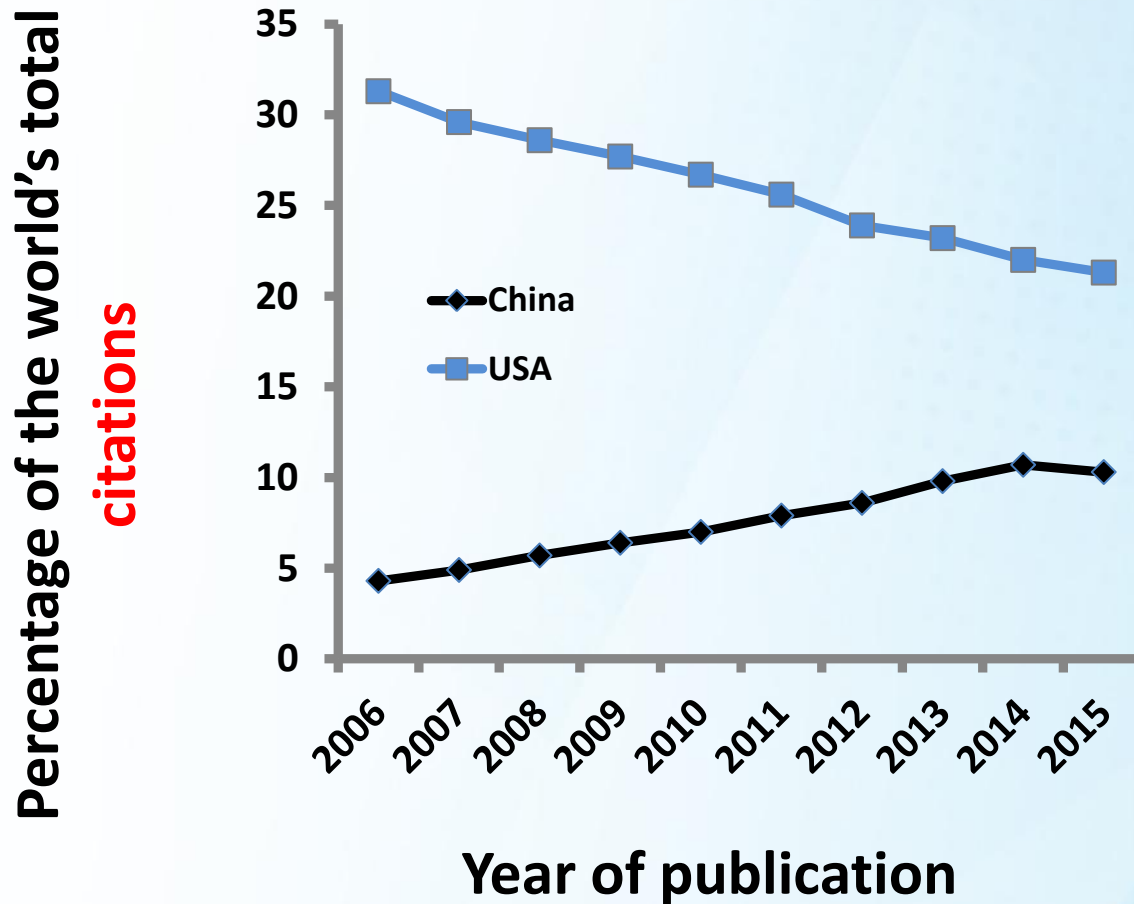


THE ROYAL SOCIETY

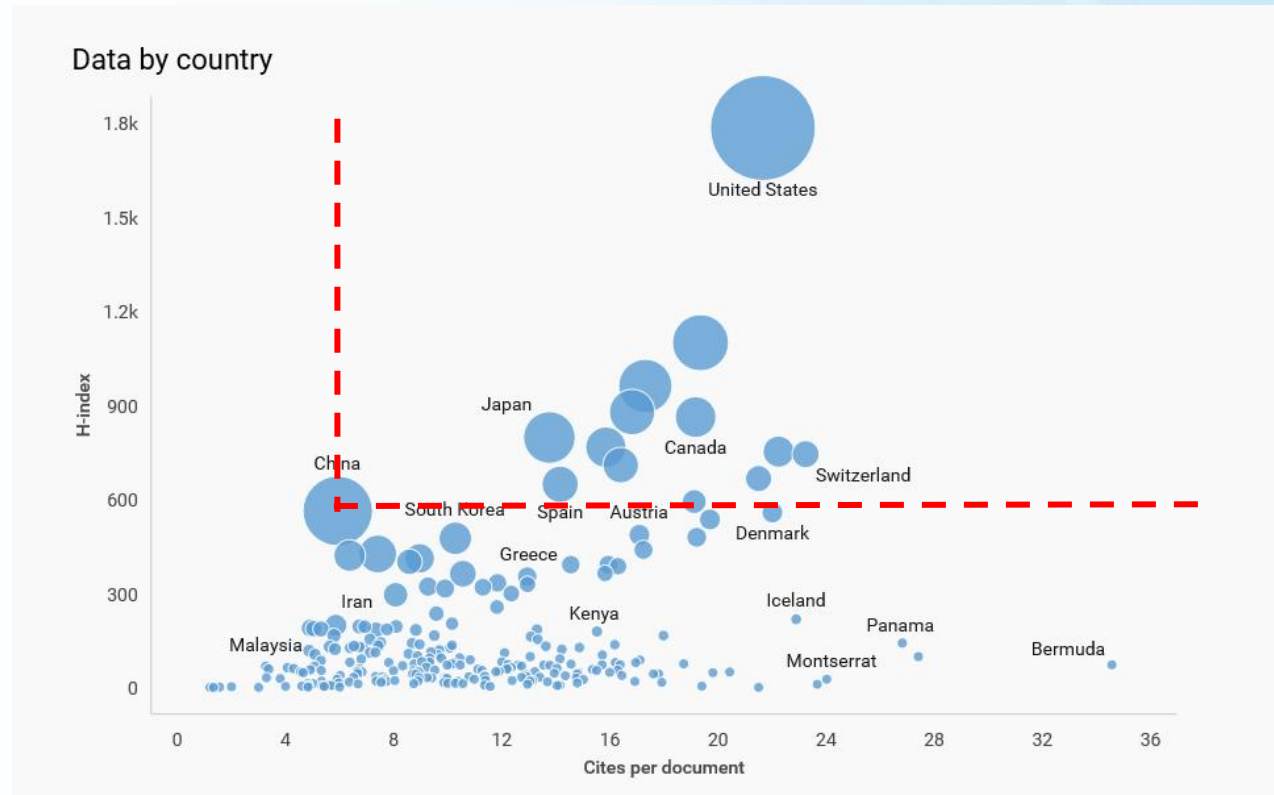
# China: The Publication Boom











# China: The Publication Boom



# China: The Impact Lag











# China Ranking in Physics and Astronomy, 2000

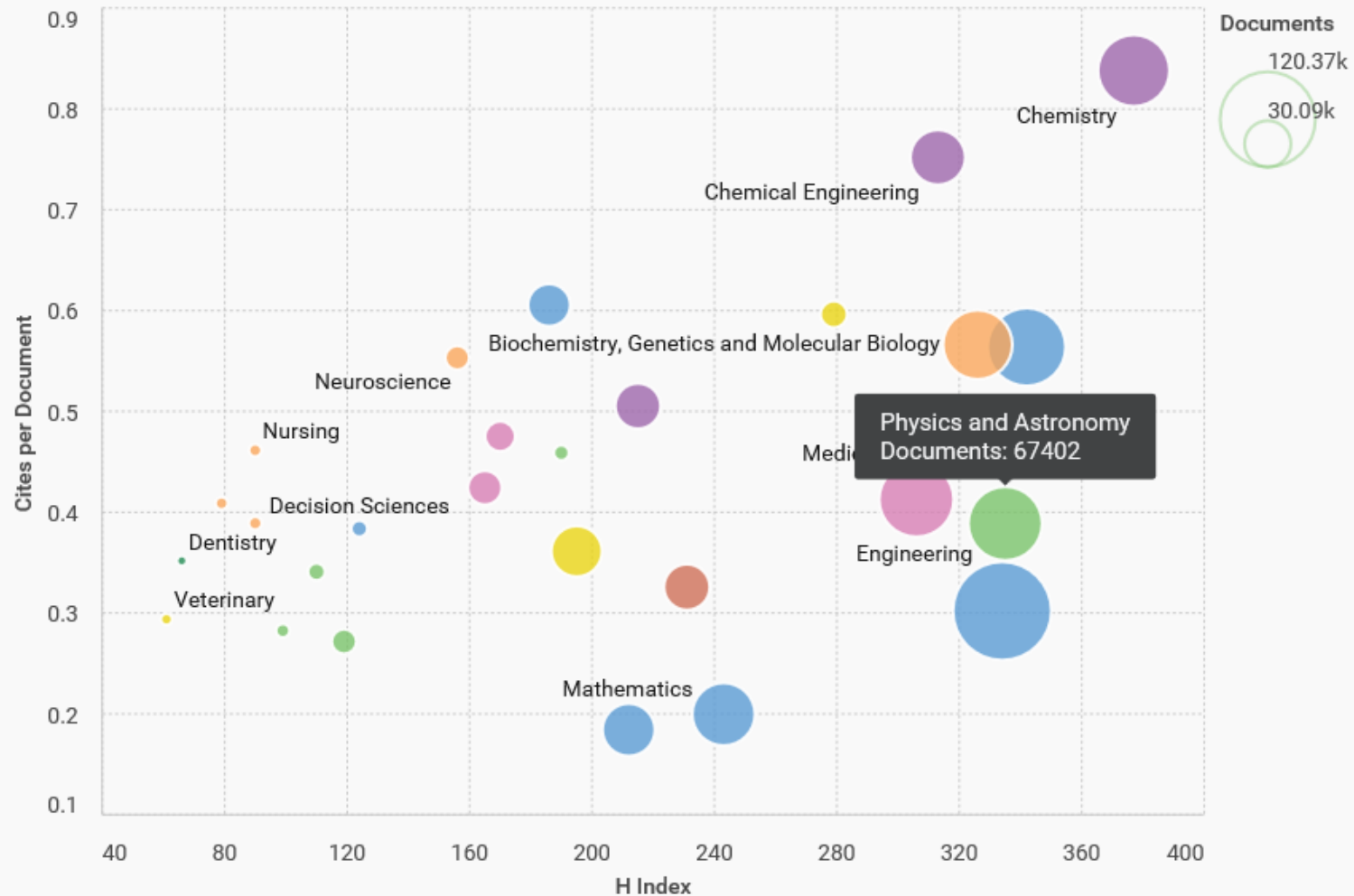
	Country	↓ Documents	Citable documents	Citations	Self-Citations	Citations per Document	H index
1	 United States	43974	43873	1292498	540130	29.39	791
2	 Japan	21482	21457	376244	126793	17.51	430
3	 Germany	18187	18153	470294	136251	25.86	502
4	 Russian Federation	13137	13121	152478	47647	11.61	314
5	 France	12752	12738	302165	77698	23.70	420
6	 United Kingdom	11819	11791	331634	75442	28.06	466
7	 China	11644	11632	132569	64181	11.39	335
8	 Italy	7815	7795	176326	46885	22.56	364



# China Ranking in Physics and Astronomy, 2015

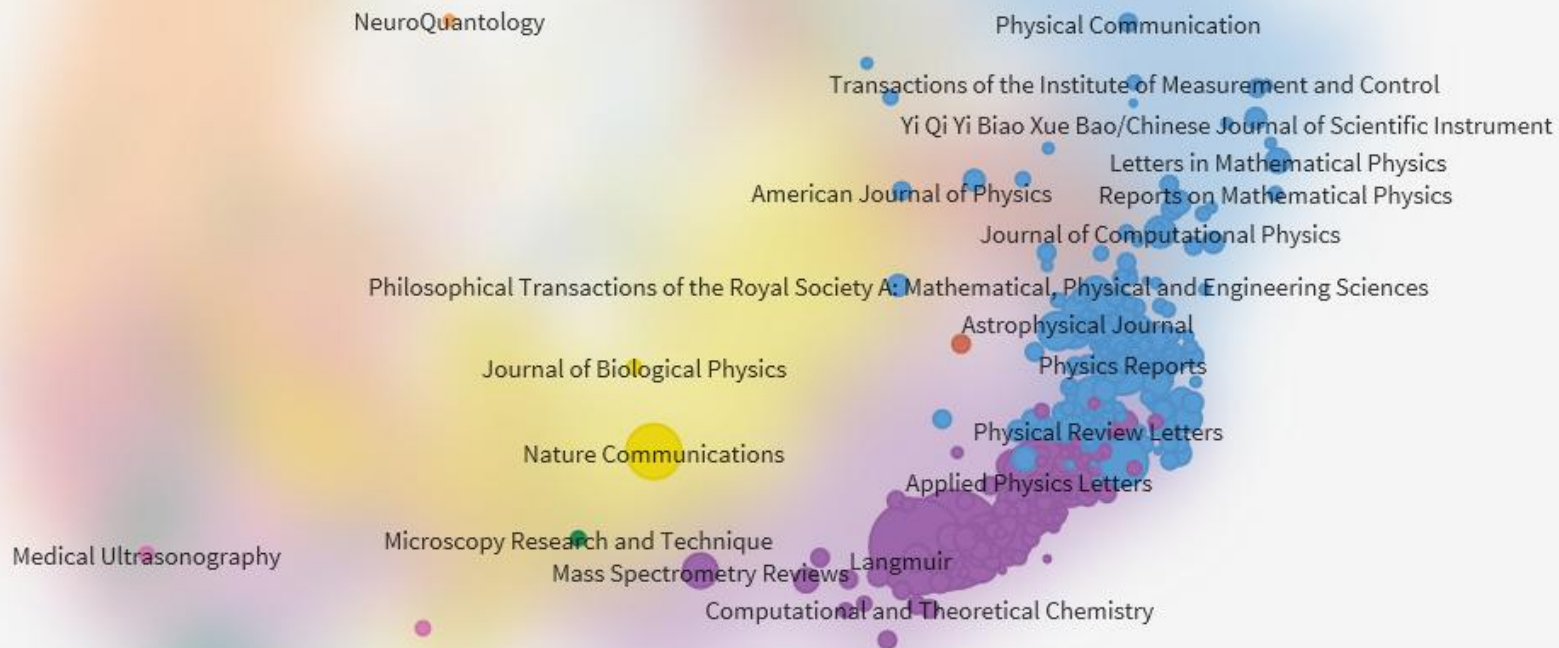
	Country	↓ Documents	Citable documents	Citations	Self-Citations	Citations per Document	H index
1	 China	67402	66348	26203	16843	0.39	335
2	 United States	52452	51159	43510	23843	0.83	791
3	 Germany	23152	22640	19784	7962	0.85	502
4	 Japan	17927	17528	9634	3504	0.54	430
5	 Russian Federation	17431	16876	6153	3052	0.35	314
6	 United Kingdom	16410	16015	15443	5535	0.94	466
7	 France	16082	15719	12549	4438	0.78	420
8	 India	14324	14013	7442	3200	0.52	246

# Impact of Physics and Astronomy vs. Other Disciplines in China



# Where were Physics and Astronomy Papers from China Published ?

2015



Scopus

348 journals

# Writing the Manuscript: Determine Your Article Type

- Editorial
  - **Original article**
  - Review article
  - Short paper
  - Case report
  - Letter to the editor
  - Personal views
  - Special communications
- It is a scientific report of the results of **original** basic or clinical research.

# Writing the Manuscript: Determine Your Article Type

- **Original**

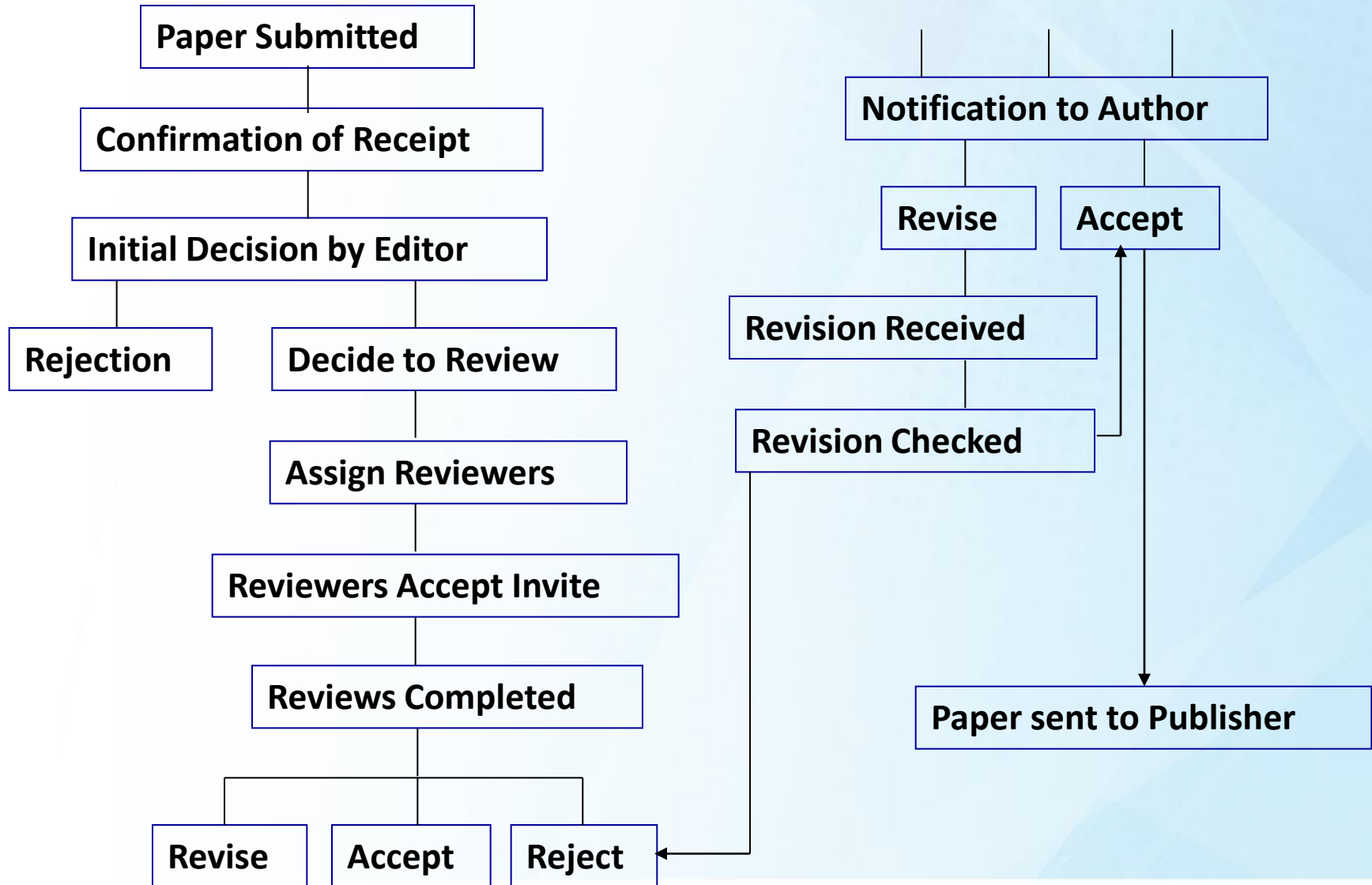
- 1) of, relating to, or constituting an origin or beginning;
- 2) not secondary, derivative, or imitative;
- 3) being the first instance or source from which a copy, reproduction, or translation is or can be made;
- 4) independent and creative in thought or action .

Merriam Webster Dictionary

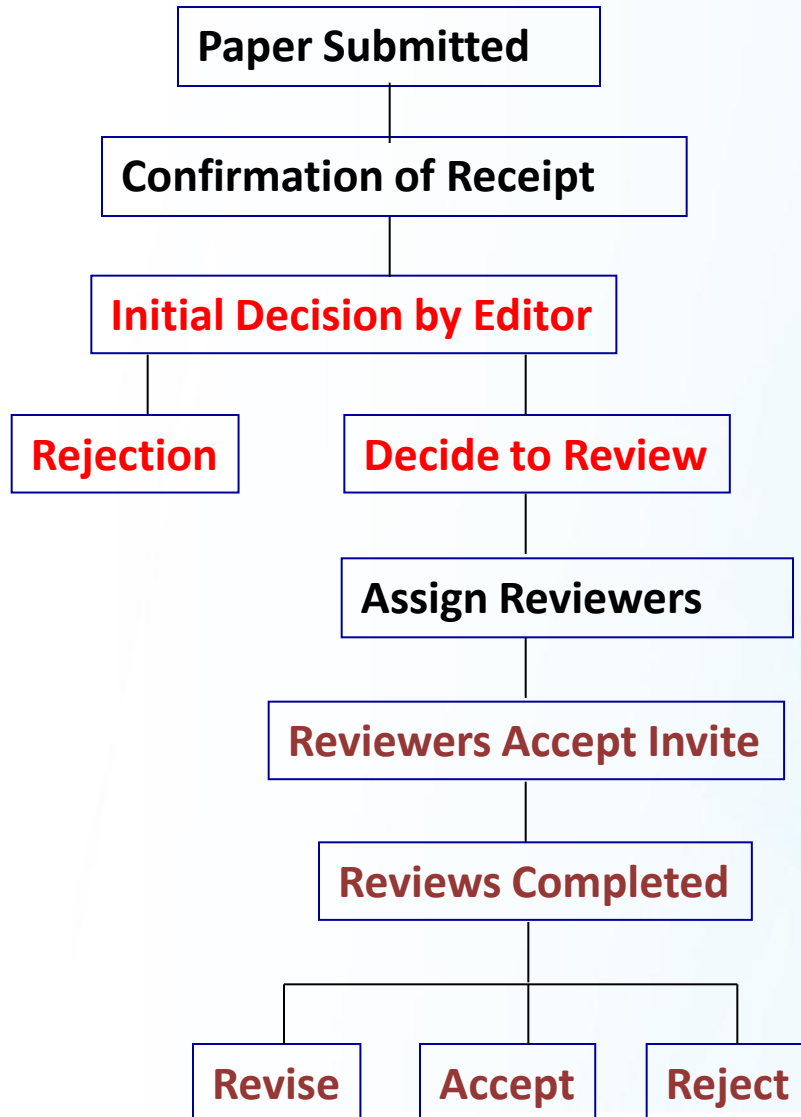
# What Do Editors/Reviewers Look for in a Manuscript?

- **Originality**
- **Significance**
- **Relevance**
- **Quality and novelty of the experimental design**
- **Data interpretation**
- **Style and presentation of the data.**
- Have you really done anything new or interesting?
- Is there anything challenging in your work?
- Is the work related to a currently hot topic?
- Have you provided solutions to any difficult problems?

# The Editorial Process and Your Paper



# The Editorial Process and Your Paper

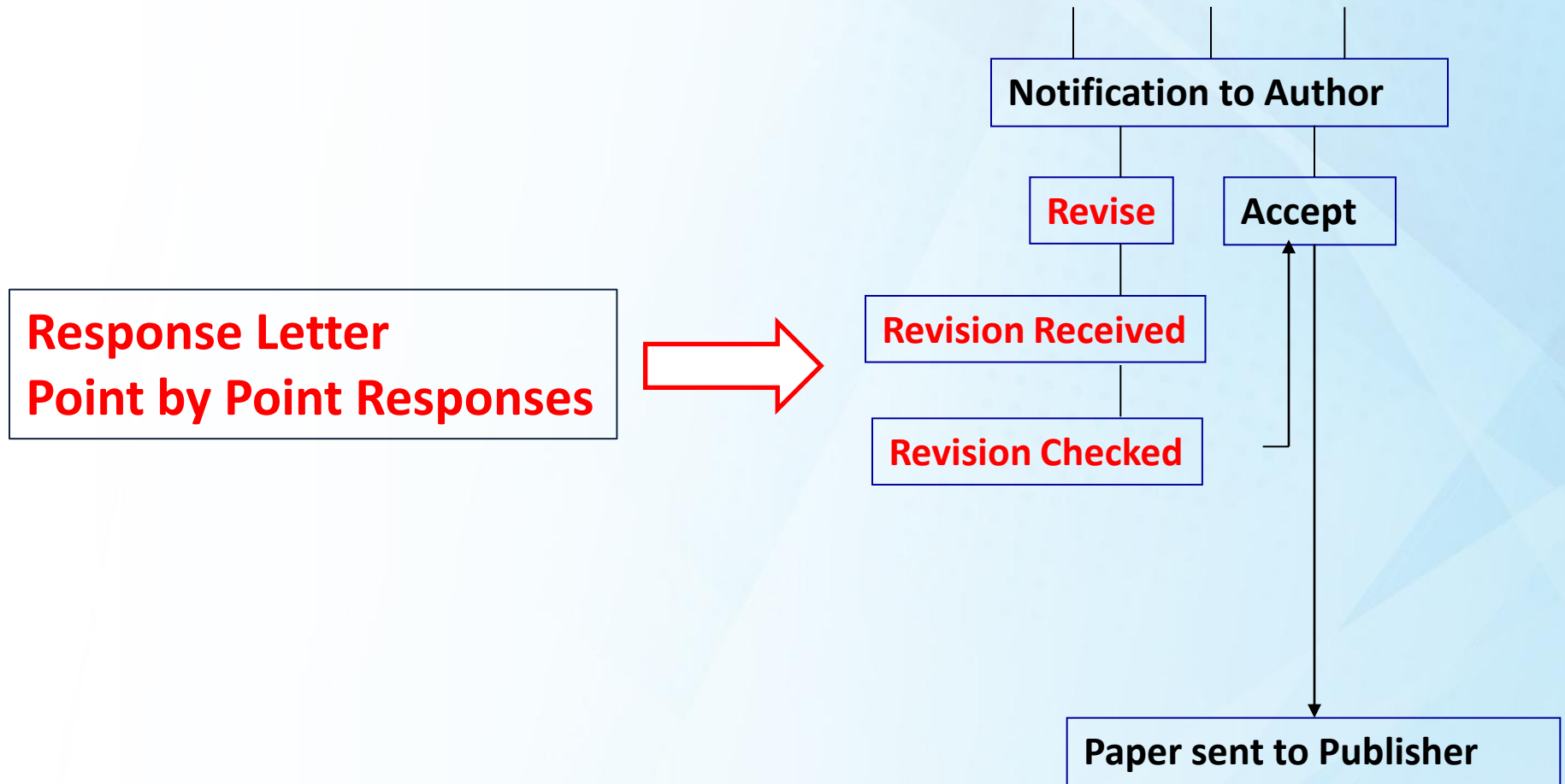


**Cover Letter**  
**Title/Abstract/Figures**

- **Originality**
- **Significance**
- **Relevance**
- **Design**
- **Data interpretation**
- **Conclusion**



# The Editorial Process and Your Paper



# The Cover Letter: What to Cover?

- June 24, 2009
  - Dear Editors,
  - We would like to submit the enclosed manuscript entitled “High-altitude pulmonary edema (HAPE) in unacclimatized persons is associated with abnormal changes in the coagulation and fibrinolytic system” by Ren et al. for consideration as a Brief Report in JAMA. We report our investigation of changes in the fibrinolytic and coagulation system in a large cohort of patients with HAPE. Previous reports of HAPE only involve fewer than 10 subjects. We found that HAPE is associated with abnormalities in the fibrinolytic system and these abnormalities are associated with the severity of HAPE. Our findings provide further insight into an illness that becomes more common with increased leisure activities in high altitude.
  - Introduce the editor to your manuscript
  - Point out what type of publication you would like to have it published
  - Provide the name of the journal.
  - Tell what your investigation is about and be brief
- and its significance.

# The Cover Letter: What to Cover?

- All of the authors have participated in or contributed to the study and have read and approved the manuscript submitted. No duplicate publication or submission of the manuscript has been made elsewhere. There will be no conflict of commercial interest for any of the authors with the publication of the manuscript. Subject to acceptance for publication in your journal, all of the authors have agreed for the transfer of copyright to the publisher of the said journal.
- 
- Questions and future correspondence should be addressed to Dr. Ren at the address shown above.
- 
- Thank you for your kind consideration of our manuscript.
- 
- Sincerely yours,
- **Authorship carries responsibility!** If your name is on a paper, be prepared to take responsibility for and defend the paper.

# An Effective Title is Clear, Succinct and Informative

- **Title**
  - Authors
  - Abstract
  - Keywords
  - Introduction
  - Materials and Methods
  - Results
  - Discussion
  - Acknowledgement
  - References
- A good title should clearly and succinctly describe the content of the paper.
  - It is also the advertisement for the paper.
  - It should be accurate as indexing databases use key words to identify relevant articles.

# An Effective Title is Clear, Succinct and Informative

## The New England Journal of Medicine

©Copyright, 1995, by the Massachusetts Medical Society

---

Volume 332

MAY 4, 1995

Number 18

---

### DETECTION OF HERPESVIRUS-LIKE DNA SEQUENCES IN KAPOSÍ'S SARCOMA IN PATIENTS WITH AND THOSE WITHOUT HIV INFECTION

PATRICK S. MOORE, M.D., M.P.H., AND YUAN CHANG, M.D.

**Abstract** *Background.* Herpesvirus-like DNA sequences have recently been found in lesions from patients with Kaposi's sarcoma and the acquired immunodeficiency syndrome (AIDS). It is not known whether these sequences are also present in classic Kaposi's sarcoma or in the Kaposi's sarcoma that occurs in homosexual men who are

the patients with AIDS-associated Kaposi's sarcoma, all 6 samples from the patients with classic Kaposi's sarcoma, and all 4 samples from the HIV-negative homosexual men with Kaposi's sarcoma. Only 1 of the 21 control samples (5 percent) was positive (odds ratio, 400; 95 percent confidence interval, 19 to 17300). Of the 14 samples of

# An Effective Abstract Enlightens and Engages Readers

- Title
  - Authors
  - **Abstract**
  - Keywords
  - Introduction
  - Materials and Methods
  - Results
  - Discussion
  - Acknowledgement
  - References
- An essential independent part of a paper.
  - Word limit (250 words).
  - It should be clear, concise and to the point.
  - Limit use of abbreviations.
  - Usually it is written last.
  - Consult the journal for instruction for writing the abstract.

# Multi-petahertz electronic metrology

M. Garg<sup>1</sup>, M. Zhan<sup>1</sup>, T. T. Luu<sup>1</sup>, H. Lakhotia<sup>1</sup>, T. Klostermann<sup>1</sup>, A. Guggenmos<sup>1</sup> & E. Goulielmakis<sup>1</sup>

The frequency of electric currents associated with charge carriers moving in the electronic bands of solids determines the speed limit of electronics and thereby that of information and signal processing<sup>1</sup>. The use of light fields to drive electrons promises access to vastly higher frequencies than conventionally used, as electric currents can be induced and manipulated on timescales faster than that of the quantum dephasing of charge carriers in solids<sup>2</sup>. This forms the basis of terahertz ( $10^{12}$  hertz) electronics in artificial superlattices<sup>2</sup>, and has enabled light-based switches<sup>3–5</sup> and sampling of currents extending in frequency up to a few hundred terahertz. Here we demonstrate the extension of electronic metrology to the multi-petahertz ( $10^{15}$  hertz) frequency range. We use single-cycle intense optical fields (about one volt per ångström) to drive electron motion in the bulk of silicon dioxide, and then probe its dynamics by using attosecond ( $10^{-18}$  seconds) streaking<sup>6,7</sup> to map the time structure of emerging isolated attosecond extreme ultraviolet transients and their optical driver. The data establish a firm link between the emission of the extreme ultraviolet radiation and the light-induced intraband, phase-coherent electric currents that extend in frequency up to about eight petahertz, and enable access to the dynamic nonlinear conductivity of silicon dioxide. Direct probing, confinement and control of the waveform of intraband currents inside solids on attosecond timescales establish a method of realizing multi-petahertz coherent electronics. We expect this technique to enable new ways of exploring the interplay between electron dynamics and the structure of condensed matter on the atomic scale.

nonlinear motion of charge carriers in bands (intraband) or to the dipole induced among bands (interband) has been a subject of an escalating debate<sup>14,18,23,24</sup>. An answer to this question comprises a critical step for extending coherent electronics to the multi-petahertz realm.

To experimentally address this question, we used attosecond streaking to record the temporal profile of EUV transients generated in polycrystalline  $\text{SiO}_2$  nanofilms ( $\sim 120$  nm thick) by single-cycle (precisely 1.2-cycle) optical pulses (peak field strength,  $F_0 \approx 1.1 \text{ V Å}^{-1}$ ) produced in a light-field synthesizer<sup>25</sup>. A streaking spectrogram recorded using our experimental set-up (Fig. 1b; see also Supplementary Information section I) and its numerical reconstruction<sup>26</sup> (Supplementary Information section II) are displayed in Fig. 1c and d, respectively. The reconstruction reveals an isolated attosecond EUV pulse, as shown in Fig. 1e, with a duration of  $\tau_{\text{EUV}} \approx 470$  as measured at the full-width at half-maximum (FWHM) of its intensity profile; this duration is only slightly longer than the bandwidth-limited value ( $\tau_{\text{BL}} \approx 460$  as) and is precisely synchronized to the peak of the driving field. The retrieved spectral phase and spectrum of the attosecond burst are presented in Fig. 1f.

To identify the physical mechanism underlying the nonlinear EUV emission in  $\text{SiO}_2$ , we performed time–frequency analysis (see Supplementary Information section III) of the retrieved attosecond pulse presented in Fig. 1e, as shown in Fig. 2b. We then compared the results with the nonlinear dipoles obtained through the numerical solution of the semiconductor Bloch equations (SBEs)<sup>19–21</sup> in  $\text{SiO}_2$  including Coulomb interactions among the carriers<sup>21</sup> and using para-

Nature 538, 359–363 (20 October 2016) doi:10.1038/nature19821 26 February 2016 30 August 2016 19 October 2016

# Multi-petahertz electronic metrology

M. Garg<sup>1</sup>, M. Zhan<sup>1</sup>, T. T. Luu<sup>1</sup>, H. Lakhota<sup>1</sup>, T. Klostermann<sup>1</sup>, A. Guggenmos<sup>1</sup> & E. Goulielmakis<sup>1</sup>

The frequency of electric currents associated with charge carriers moving in the electronic bands of solids determines the speed limit of electronics and thereby that of information and signal processing<sup>1</sup>. The use of light fields to drive electrons promises access to vastly higher frequencies than conventionally used, as electric currents can be induced and manipulated on timescales faster than that of the quantum dephasing of charge carriers in solids<sup>2</sup>. This forms the basis of terahertz ( $10^{12}$  hertz) electronics in artificial superlattices<sup>2</sup>, and has enabled light-based switches<sup>3, 4, 5</sup> and sampling of currents extending in frequency up to a few hundred terahertz. Here we demonstrate the extension of electronic metrology to the multi-petahertz ( $10^{15}$  hertz) frequency range.

- Background info
- Purpose/Aim



# Multi-petahertz electronic metrology

M. Garg<sup>1</sup>, M. Zhan<sup>1</sup>, T. T. Luu<sup>1</sup>, H. Lakhota<sup>1</sup>, T. Klostermann<sup>1</sup>, A. Guggenmos<sup>1</sup> & E. Goulielmakis<sup>1</sup>

We use single-cycle intense optical fields (about one volt per ångström) to drive electron motion in the bulk of silicon dioxide, and then probe its dynamics by using attosecond ( $10^{-18}$  seconds) streaking<sup>6, 7</sup> to map the time structure of emerging isolated attosecond extreme ultraviolet transients and their optical driver. The data establish a firm link between the emission of the extreme ultraviolet radiation and the light-induced intraband, phase-coherent electric currents that extend in frequency up to about eight petahertz, and enable access to the dynamic nonlinear conductivity of silicon dioxide. Direct probing, confinement and control of the waveform of intraband currents inside solids on attosecond timescales establish a method of realizing multi-petahertz coherent electronics. We expect this technique to enable new ways of exploring the interplay between electron dynamics and the structure of condensed matter on the atomic scale.

- Methods
- Methods
- Conclusion
- Significance

# Keywords Enable Readers to Locate Your Paper

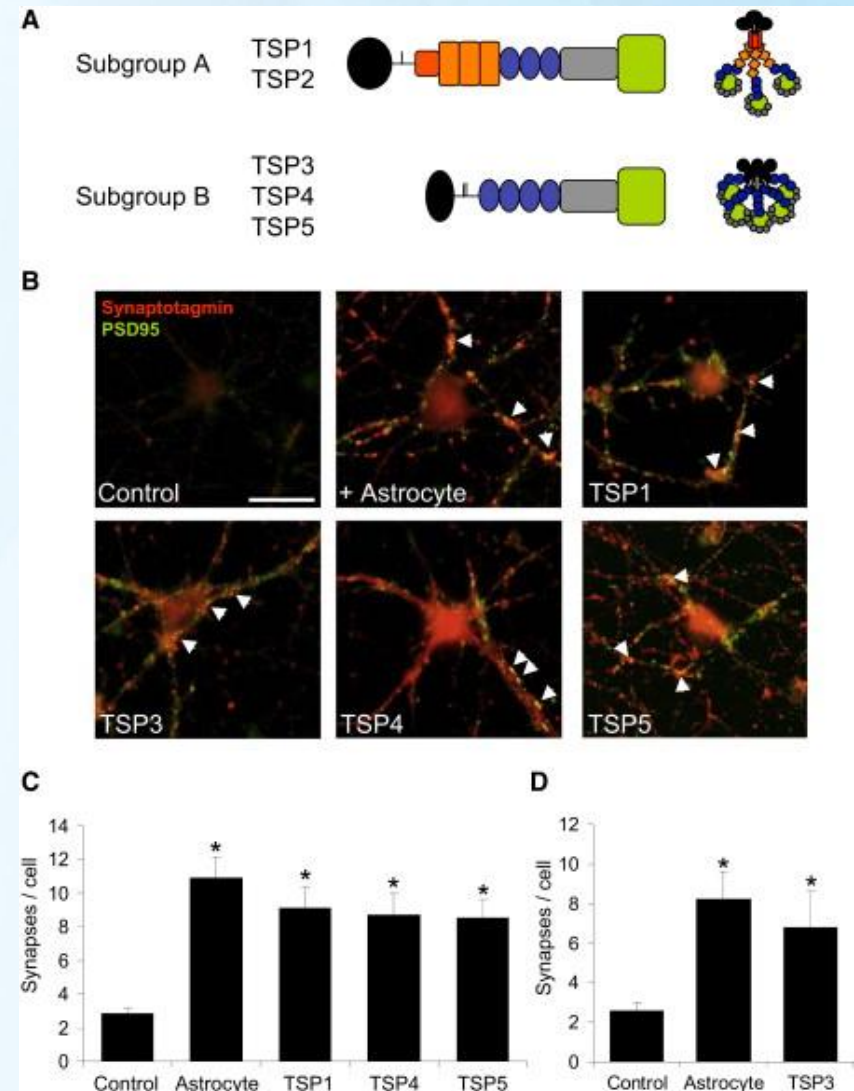
- Title
  - Authors
  - Abstract
  - **Keywords**
  - Introduction
  - Materials and Methods
  - Results
  - Discussion
  - Acknowledgement
  - References
- It is the label of your work.
  - Be accurate and relevant.
  - They are used by abstracting and indexing services to identify the paper.

# Figures should be Informative and Self-explanatory

- Figures offer readers a quick overview of the major study findings.
- Figures help readers better understand the study results.
- Figures should have a brief description (a legend), providing the reader sufficient information to know how the data were produced.

# Figures should be Informative and Self-explanatory

Figure 1 All Thrombospondin Isoforms Are Synaptogenic. (A) TSPs are divided into two subgroups. The N-terminal domain (black), the procollagen repeat (red), and properdin-like repeats (orange), EGF-like repeats (blue), calcium binding repeats (gray), and C-terminal L-lectin like globular domain (green) are shown. (B) Immunostaining of RGCs for synaptotagmin (red) and PSD-95 (green). White arrows point to colocalized synaptic puncta. The scale bar represents 30  $\mu\text{m}$ . (C and D) Quantification of the effects of astrocytes, purified TSP1, 4, and 5 (8 nM each) (C) and conditioned media from COS7 cells overexpressing either TSP3 or empty vector (D) on synapse number. In all graphs,  $n = 20$  cells. Error bars show the mean  $\pm$  SEM, \* $p < 0.05$ .



Cell. 2009 Oct 16;139(2):380-92. doi: 10.1016/j.cell.2009.09.025

# Increase Visibility of Your Paper

- **Title**
  - **Authors**
  - **Abstract**
  - **Keywords**
  - Introduction
  - Materials and Methods
  - Results/**Figures**
  - Discussion
  - Acknowledgement
  - References
- Make them accurate and easy for indexing and searching (informative, attractive, and effective)

## Abstract

Glioblastoma multiforme (GBM) is a highly aggressive brain tumor. Despite chemotherapy with temozolomide (TMZ), the median survival time is only 14.6 months. In the first nine months of follow-up, resistance, suggesting that the resistance is attributed to neither MGMT nor ongoing DNA damage repair (DDR) defects. These results suggest that the DNA damage response (DDR) is defective in the activation of discrete foci. These results suggest that the DNA damage response (DDR) is defective in the activation of discrete foci. These results suggest that the DNA damage response (DDR) is defective in the activation of discrete foci.

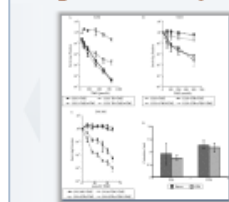
**KEYWORDS:** DNA damage

PMID: 23554659 PMCID: PMC3596690

[PubMed] [Free PMC Article](#)



## Images from this publication



## Grant Support

[www.ncbi.nlm.nih.gov/pmc/articles/PMC3596690/figure/jbr-24-06-424-g001/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3596690/figure/jbr-24-06-424-g001/)

[LinkOut - more resources](#)

**Fig. 1**

The temozolomide (TMZ)-resistant GBM cell lines exhibit unknown mechanisms of resistance.

A: U251 (TR) cells exhibit enhanced survival to TMZ compared with U251 cells. The MGMT inactivator, O6-BG, sensitizes U251 (TR) cells to TMZ with a survival similar to U251 cells. B and C: U251 (OTR) and D54 (OTR) exhibit enhanced survival against TMZ compared with U251 and D54, respectively. The MGMT inactivator, O6-BG, does not sensitize any of these cell lines to TMZ. C: U251 and U251 (OTR), and D54 and D54 (OTR) exhibit similar MMR capacity. D: Each data point represents the average of three independent experiments; bars, mean ± SD.

[Decoupling of DNA damage response signaling from DNA damages underlies temozolomide resistance in glioblastoma cells](#)

J Biomed Res. 2010 Nov;24(6):424-435.

therapy includes surgery, radiation and chemotherapy. The methylation status of the O6-methylguanine (O6-MG) promoter is methylated in 45% of cases, for which MGMT deficiency makes little contribution to clinical outcome. We have paired GBM cell lines whose resistance was attributed to decoupling of DNA damage response (DDR) signaling. DNA synthesis is not inhibited. They are also resistant to TMZ. NBS1 and gammaH2AX also fail to form foci. These results suggest that the DNA damage response (DDR) is defective in the activation of discrete foci. These results suggest that the DNA damage response (DDR) is defective in the activation of discrete foci. These results suggest that the DNA damage response (DDR) is defective in the activation of discrete foci.

# Writing an Effective Introduction

- Title
- Authors
- Abstract
- Keywords
- **Introduction**
- Materials and Methods
- Results
- Discussion
- Acknowledgement
- References

- Provide rationale for current study.
  - What gap in knowledge did you try to fill?
  - What controversy did you try to resolve?
- State the aim of study
- May state principal result/conclusion (?)
- Do not include detailed results from previous studies.
- Avoid a detailed history of the subject.
- Stay focused. The most common problem in introduction is lack of focus.



## Evolution from the plasmon to exciton state in ligand-protected atomically precise gold nanoparticles

Meng Zhou<sup>1</sup>, Chenjie Zeng<sup>1</sup>, Yuxiang Chen<sup>1</sup>, Shuo Zhao<sup>1</sup>, Matthew Y. Sfeir<sup>2</sup>, Manzhou Zhu<sup>3</sup> & Rongchao Jin<sup>1</sup>

## Justification

Provide background information broad enough to allow readers to understand the current state of the art but also specific enough to allow readers to see why the authors want to address a specific research question.

- **Plasmonic metal nanoparticles** have found a wide range of applications in nanoantennas, photochemical reactions and solar cells, to name a few. A central question in metal nanoparticle research pertains to the evolution from the metallic to molecular state. **Spherical gold nanoparticles** with diameters between 5 and 100 nm are well known to exhibit a distinct surface plasmon resonance (SPR) between 520–570 nm (wavelength) depending on the size. With decreasing size (below ~5 nm), the SPR starts to be dampened and blueshifted, and eventually disappears for ultrasmall particles (<2 nm in diameter). The **ultrasmall gold nanoparticles** in the quantum size regime possess discrete electron energy levels and show molecular-like behaviour such as single-electron transitions or excitons, in contrast to the collective excitation behaviour in the metallic state.



## Evolution from the plasmon to exciton state in ligand-protected atomically precise gold nanoparticles



Meng Zhou<sup>1</sup>, Chenjie Zeng<sup>1</sup>, Yuxiang Chen<sup>1</sup>, Shuo Zhao<sup>1</sup>, Matthew Y. Sfeir<sup>2</sup>, Manzhou Zhu<sup>3</sup> & Rongchao Jin<sup>1</sup>**Justification****Gap in knowledge**

- Mapping out the precise evolution from the metallic (or plasmonic) state to the molecular excitonic state is of major importance because it not only reveals the origin of metallic bonding but also offers fundamental insights into the birth of SPR. However, the precise transition and its effects on the particles' properties (for example, catalysis) still remain unclear. In recent years, significant advances have been achieved in the wet chemical synthesis of atomically precise nanoparticles or nanoclusters, which has opened up new opportunities for fundamental studies at the unprecedented level of atomic precision.

## Evolution from the plasmon to exciton state in ligand-protected atomically precise gold nanoparticles

Meng Zhou<sup>1</sup>, Chenjie Zeng<sup>1</sup>, Yuxiang Chen<sup>1</sup>, Shuo Zhao<sup>1</sup>, Matthew Y. Sfeir<sup>2</sup>, Manzhou Zhu<sup>3</sup> & Rongchao Jin<sup>1</sup>

In terms of electronic excitation and relaxation, the behaviour of metallic nanoparticles has been extensively studied.....Molecular-like gold nanoclusters, on the other hand, exhibit power-insensitive electron dynamics. Therefore, the electron dynamics measured at different pump powers constitute a distinct signature that differentiates plasmonic and excitonic gold nanoparticles due to the evolution in electronic mobility and screening interaction. The investigation on the transition requires single-sized nanoparticles in the 1–5 nm regime, but it had long been a major challenge to achieve atomic monodispersity until recently.

 **Moving the reader from what is known about a topic** **to what is unknown or challenging**

Evolution from the plasmon to exciton state in ligand-protected atomically precise gold nanoparticles

Meng Zhou<sup>1</sup>, Chenjie Zeng<sup>1</sup>, Yuxiang Chen<sup>1</sup>, Shuo Zhao<sup>1</sup>, Matthew Y. Sfeir<sup>2</sup>, Manzhou Zhu<sup>3</sup> & Rongchao Jin<sup>1</sup>

- Here, we utilize the atomically precise gold nanoparticles in the range of 1.0–3.5 nm to investigate the grand transition from the metallic to excitonic state by femtosecond transient absorption spectroscopy as well as the impact of the transition on catalytic properties. By directly probing the electron–phonon coupling in these gold nanoparticles, we explicitly map out that the metallic to molecular state transition occurs between 2.3 nm (Au<sub>333</sub>) and 1.7 nm (Au<sub>144</sub>). The Au<sub>333</sub> nanocluster exhibits both molecular and plasmonic behaviour and is thus intermediate between the typical molecular state (for example, Au<sub>144</sub>) and the typical metallic state (for example, Au<sub>~520</sub>). This transition is also discovered to be coincident with the trend of catalytic activity in the oxidation of carbon monoxide (CO) and electrocatalytic oxidation of alcohol.



State objective



State principal result  
/conclusion (?)

# Methods should Allow Duplication of Your Study

- Title
  - Authors
  - Abstract
  - Keywords
  - Introduction
  - Materials and **Methods**
  - Results
  - Discussion
  - Acknowledgement
  - References
- This section explains how you have obtained your study results.
    - What has been done?
    - What did you look for?
    - How was it done?
  - For established methods, just provide a reference.
  - For modified methods, provide sufficient details.
  - The methods (results) should be reproducible.
  - Logical order-usually chronological or the order of presentation of results.

# Effectively Present Your Results

- Title
  - Authors
  - Abstract
  - Keywords
  - Introduction
  - Materials and Methods
  - **Results**
  - Discussion
  - Acknowledgement
  - References
- What are your **major** findings?
  - Answer all points raised in Methods.
  - No new parameters.
  - No mismatch in numbers between text and tables/figures.
  - Follow a logical sequence based on the tables and figures presenting the findings to answer the question or hypothesis.

# Effectively Present Your Results

**Title**-brief, informative & effective

**All TSP Isoforms Induce Synapse Formation**

**Experimental design and aim**

There are five TSP isoforms in mammals, which fall into two groups according to their domain structure and oligomerization states ([Figure 1A](#)). Trimeric subgroup A TSPs, TSP1 and 2, are synaptogenic ([Christopherson et al., 2005](#)). **To determine whether pentameric subgroup B TSPs are also synaptogenic, we cultured RGCs in the presence of astrocytes or with TSP 1, 3, 4, or 5. All subgroup B TSPs increased synapse number significantly to similar levels as TSP1 or astrocytes ([Figures 1B–1D](#)).** These results suggest that the synaptogenic domain of TSP is located in the conserved C-terminal portion of TSP, which is common to all isoforms spanning the EGF-like repeats, the calcium-binding repeats, and C-terminal L-type lectin-like globular domain.

**Major findings**

**Interpretation of your findings**

# Writing an Effective Discussion

- Title
  - Authors
  - Abstract
  - Keywords
  - Introduction
  - Materials and Methods
  - Results
  - **Discussion**
  - Acknowledgement
  - References
- Describe what your results mean in context of what was already known about the subject
  - Indicate how the results relate to expectations and to previous findings by others
  - Explain how the research has moved the body of scientific knowledge forward
  - Do not extend your conclusions beyond what is directly supported by your results - avoid undue speculation
  - Unanswered questions and future research .
  - Summary / conclusion .



Evolution from the plasmon to exciton state in ligand-protected atomically precise gold nanoparticles

Meng Zhou<sup>1</sup>, Chenjie Zeng<sup>1</sup>, Yuxiang Chen<sup>1</sup>, Shuo Zhao<sup>1</sup>, Matthew Y. Sfeir<sup>2</sup>, Manzhou Zhu<sup>3</sup> & Rongchao Jin<sup>1</sup>

Our results explicitly indicate that the transition from metallic to molecular behaviour in gold nanoparticles occurs between Au<sub>333</sub> and Au<sub>144</sub> (that is, 2.3–1.7 nm; Fig. 6). Au<sub>~520</sub> and Au<sub>~940</sub> behave like metal, while Au<sub>144</sub> and smaller particles exhibit molecular-like behaviour. The Au<sub>333</sub> size exhibits both metallic and molecular behaviour. Based on the optical properties and electron dynamics, gold nanoparticles can be classified into three states: metallic (larger than 2.3 nm), transition regime (between 2.3 and 1.7 nm) and non-metallic (smaller than 1.7 nm). The transition apparently impacts the catalytic properties, as demonstrated in both CO oxidation and electrocatalytic oxidation of alcohol. The determination of the evolution from metallic to molecular gold nanoparticles will open up future exciting opportunities for not only understanding the origin of SPR but also revealing the new properties of metallic nanoparticles in the transition regime.



Describe what your results mean in context



Unanswered questions and future research



# Your Paper should Deliver a Clear and Coherent Message

- Content is essential.
- Presentation is critical.
- It contains a message that is clear, useful, and exciting.
- It conveys the authors' thoughts in a logical manner such that the reader arrives at the same conclusion as the authors.

# How to Respond to Critiques

Dear Dr. XXX:

Your manuscript entitled, "Treatment of Femoral Head Loss Secondary Septic Arthritis in Infancy With Modification of Albee's Arthroplasty," number JBJS-D-09-00201, has been reviewed by two experienced pediatric orthopaedic surgeons, as well as by myself. The comments of these clinical reviewers are included below. In addition, your manuscript was reviewed by one of the methodology and statistics editors for JBJS and the comments of that editor are also below.

Based on the reviews, the decision has been made to not accept your manuscript for publication in JBJS. I know this is not the decision you desired, but I hope that the comments of the three reviewers will be of help to you as you revise your manuscript for submission to another orthopaedic journal. Thank you for submitting your research report to JBJS for our consideration.

.....

# How to Respond to Critiques

- Dear Dr. XXX
- Thank you for your having our manuscript (JBJS-D-09-00201) entitled “Treatment of Femoral Head Loss Secondary Septic Arthritis in Infancy with Modification of Albee's Arthroplasty” reviewed. We regret to learn the decision by JBJS not to accept our manuscript. However, we are very encouraged by the positive comments by the reviewers who have pointed out problems and deficiencies with the manuscript, but most of all they recognize the value of our work, the publication of which will be of great help to our fellow pediatric orthopedic surgeons in managing the severe sequelae of septic arthritis of the hip in young children.
- Start politely and thanks the editor for sending the manuscript for review.
- Be positive and emphasize the value/significance of your work.

# How to Respond to Critiques

- We have revised the manuscript in accordance with the suggestions by the reviewers. In it, we have addressed almost all of the concerns by the reviewers and have incorporated answers to their questions in the revised manuscript. In addition, we have enlisted the help of Dr. Bo Cui at the Department of Surgery, Duke University Medical Center, Durham, NC, USA in the final revision of the manuscript. We have also sought the advice for statistical analysis from Dr. Xiutang Cao, a statistician at the Fourth Military Medical University China. We would like to ask your kind reconsideration of the manuscript either as a new manuscript or as a revised manuscript and we would also like to have the same reviewers review the manuscript if possible. Though septic arthritis of the hip in young children is uncommon, it is often devastating to those who have the disease. Our experience and the results of our retrospective study of modified Albee's arthroplasty in young patients with the severe sequelae of septic arthritis of the hip will be useful for pediatric orthopedic surgeons all over the world who face this problem rarely.
- Address comments/concerns by the reviewers.
- Be specific about your request.
- Emphasize the value of your work

# How to Respond to Critiques

- Again all the authors have read the final manuscript and agreed to its publication if accepted by the journal. No duplicate publication or submission of the manuscript has been made elsewhere.
- We have detailed our responses to the reviewers and also documented the changes in the responses that are appended at the end of this letter.
- If you or the reviewers have any questions, please do not hesitate to contact me.
- Thank you for your consideration of our manuscript.
- Indicate that you have made appropriate changes in the manuscript.

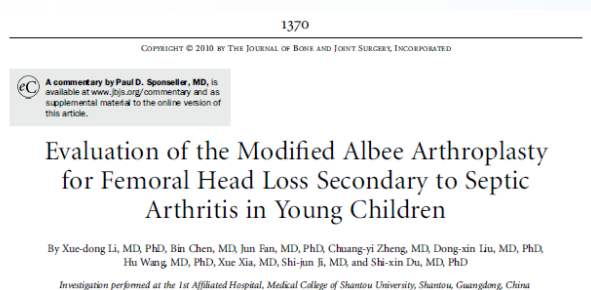
# How to Respond to Critiques

- **The goal is to move the work forward and figure out how to satisfy the reviewer.**

# How to Respond to Critiques

**Commentary & Perspective on "Evaluation of the Modified Albee Arthroplasty for Femoral Head Loss Secondary to Septic Arthritis in Young Children" by Xue-dong Li, MD, PhD, et al. Paul D. Sponseller, MD\*, Johns Hopkins Medical Institutions, Baltimore Maryland**

The article is also useful in part because it contains a detailed description of the procedure. This instruction, in combination with the decade-long follow-up of this uncommon problem, provides valuable information to guide us. The series of three line drawings illustrating the procedure is practical and ***helps make this a landmark paper.***





# Questions?





# Contact Details

Website: <http://iopeditingservices.editage.com/resources>

Email: [iopeditingservices@editage.com](mailto:iopeditingservices@editage.com)



Dr. Eddy™ personifies our efforts to support authors with good publication practices. He can be found at **Editage Insights**  
<http://www.editage.com/insights/ask-dr-eddy>