Scientific Writing, Integrity and Ethics V

Integrity, Etiquette and Misconduct in Scientific Research

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Reference

CMU's Center for the Advancement of Applied Ethics and Political Philosophy

Sigma Xi. Honor in Science. The Responsible Researcher: Paths and Pitfalls, 2000

https://onlineethics.org/

Research Ethics Covers Many Areas

Use of human subjects in research

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- Stem cell research, impact of technology (nuclear weapons, genetic screening), etc.

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Moral debates

- Stem cell research, impact of technology (nuclear weapons, genetic screening), etc.

Professional issues (today's topic)

- Authorship, IP rights, confidentiality, etc.

Know the rules.

Avoiding Ethical Dilemmas

Know the rules.

- How are researchers supposed to behave?
- Who says so?

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Know your rights & responsibilities.

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Know your rights & responsibilities.

- Co-authorship
- Ownership of intellectual property
- Conflicts of interest
- Etc.

Avoiding Ethical Dilemmas

Learn to recognize the most common ethical mistakes.

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- Or resolve them quickly with minimal discomfort.

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Learn from others' mistakes.

Ethics Education

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But not computer sciences?

Allocation of Credit

Credit in a Paper

Two forms of credit in a paper:

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- Co-authorship
- Acknowledgments

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Who gets listed as a co-author?

- Lab director is co-author on all papers?
- Student "owes" his advisor co-authorship on at least one journal paper?

Ordering of Authors

How is the ordering of authors determined in your field?

First and last usually the key positions.

Different disciplines/cultures follow different conventions.

Rule of thumb:

- A co-author should have made direct and substantial contributions to the work (not necessarily to the writing.)

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Co-Authorship

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David Baltimore case:

- Nobel laureate was co-author on a paper
- Primary investigator accused of fraud

Generally: authors ordered by the amount of their contribution.

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- But in the Theory community, author list is sometimes alphabetical.

Co-Authorship in Computer Science

Generally: authors ordered by the amount of their contribution.

- But in the Theory community, author list is sometimes alphabetical.

Contributions may include:

- Providing key ideas
- Doing the implementation
- Running experiments / collecting data
- Analyzing the data
- Writing up the results

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- Rarely see large author lists as in physics.

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But many computer scientists do interdisciplinary work:

- HCI.
- computational neurosci.

Acknowledgments

People who made contributions that don't merit co-authorship may (sometimes must) be acknowledged elsewhere in the paper.

Not as good as co-authorship, since it doesn't go on a vita.

But it's good manners, and costs nothing.

Acknowledge People Who...

Contribute a good idea or coin a useful term

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Given useful suggestions when review your paper

Also acknowledge your funding agency!

What are the authorship conventions in our field?

Ask Your Supervisor

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Are students prohibited from submitting papers (even if sole-authored) without your approval?

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Who owns the code/data/manuscript?

Professor Smith is invited to write an article for a special issue of The Big Important Journal.

Smith invites grad student Jones to help with the article.

Some of the most important results are the product of Jones' thesis research.

Discussion

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What should the authorship be?

Misappropriating Text

Plagiarism

Borrowing "just a sentence or two" without attribution is plagiarism.

But plagiarism is easily avoided: give the citation.

An Example

SHANGHAI JIAO TONG UNIVERSITY

A Roadmap for Big Model *

Sha Yuan[*1] Hanyu Zhao[*1] Shuai Zhao[*1] Jiahong Leng[*1] Yangxiao Liang[*1] Xiaozhi Wang[*2] Jifan Yu[*2] Xin Lv[*2] Zhou Shao[*1] Jiaao He[*2] Yankai Lin[*3] Xu Han[*2] Zhenghao Liu[*4] Ning Ding[*2] Yongming Rao[*2] Yizhao Gao[*5] Liang Zhang[*5] Ming Ding[*2] Cong Fang[*6] Yisen Wang[*6] Mingsheng Long[*2] Jing Zhang[*7] Yinpeng Dong[*2] Tianyu Pang[*2] Peng Cui[*2] Lingxiao Huang[*7] Zheng Liang[*2] Huawei Shen[*8] Hui Zhang[*2] Quanshi Zhang[*9] Qingxiu Dong[*6] Zhixing Tan[*2] Mingxuan Wang[*13] Shuo Wang[*2] Long Zhou[*14] Haoran Li[*10] Junwei Bao[*10] Yingwei Pan[*10] Weinan Zhang[*11] Zhou Yu[*12] Rui Yan[*5] Chence Shi[*15] Minghao Xu[*15] Zuobai Zhang[*15] Guoqiang Wang[1] Xiang Pan[16] Mengjie Li[17] Xiaoyu Chu[1] Zijun Yao[2] Fangwei Zhu[2] Shulin Cao[2] Weicheng Xue[2] Zixuan Ma[2] Zhengyan Zhang[2] Shengding Hu[2] Yujia Qin[2] Chaojun Xiao[2] Zheni Zeng[2] Ganqu Cui[2] Weize Chen[2] Weilin Zhao[2] Yuan Yao[2] Peng Li[3] Wenzhao Zheng[2] Wenliang Zhao[2] Ziyi Wang[2] Borui Zhang[2] Nanyi Fei[2] Anwen Hu[2] Zenan Ling[4] Haoyang Li[5] Boxi Cao[18] Xianpei Han[18] Weidong Zhan[6] Baobao Chang[6] Hao Sun[2] Jiawen Deng[2] Jiuzi Li[22] Lei Hou[22] Xigang Cao[21] Jidong Zhai[22] Zhiyuan Liu[22] Maosong Sun[22] Jiwen Lu[22] Zhiwu Lu[25] Qin Jin[25] Ruihua Song[5] Ji-Rong Wen[5] Zhouchen Lin[266] Liwei Wang[266] Hang Su[82] Jun Zhu[82] Zhifang Sui[*6] Jiajun Zhang[2619] Yang Liu[822] Xiaodong He[2610] Minlie Huang[822] Jian Tang[25] **Jie Tang**[82,1]

[1] **Beijing Academy of Artificial Intelligence**
[2] Tsinghua University
[3] Wechat, Tencent Inc.
[4] Northeastern University
[5] Renmin University of China
[6] Peking University
[7] Huawei TCS Lab
[8] Institute of Computing Technology, Chinese Academy of Sciences
[9] Shanghai Jiao Tong University
[10] JD AI Research
[11] Harbin Institute of Technology
[12] Columbia University
[13] ByteDance AI Lab
[14] Microsoft Research Asia
[15] Mila-Quebec AI Institute & University of Montreal
[16] New York University
[17] BeiHang University
[18] Institute of Software, Chinese Academy of Sciences
[19] Institute of Automation Chinese Academy of Scieces

如何看待智源、清华等单位论文 A Roadmap for Big Model 中大量段落被指涉嫌抄袭?

Google Brain研究员Nicholas Carlini近日在一篇博客中指出智源、清华等单位的论文A Roadmap for Big Model中部分段落抄袭了他们的论文Deduplicating Training Data Makes Language Models Better，同时他指出，A Roadmap for Big Model可能同时抄袭了十余篇其他论文。Nicholas Carlini展示了一些抄袭Deduplicating Training Data Makes Language Models Better的片段，抄袭部分用绿色高亮。

propose the notion of a World Scope (WS) as a lens through which to audit progress in NLP. They define five WSs, and they note that the most popular pre-training in NLP operates in the WS1 (Internet)	[Original]: propose the notion of a World Scope (WS) as a lens through which to audit progress in NLP. We describe five WSs, and note that most trending work in NLP operates in the second (Internet-scale data).
In addition to BERT, where masked words are predicted from the non-masked words in the language modality, UNIMO proposes cross-modality model architecture that could predict masked words from the visual modality as well so as to resolve ambiguity. For example, it is hard to determine the masked word ‘arrot’ from its language context but the word choice is clear if the visual information is available	[Original:] In addition to BERT where masked words are predicted from the non-masked words in the language modality, UNIBERT, with its cross-modality model architecture, could predict masked words from the vision modality as well, so as to resolve ambiguity. For example, as shown in Fig. 2, it is hard to determine the masked word ‘carrot’ from its language context but the word choice is clear if the visual information is considered
a number of information- seeking questions such as “what is the definition of ...” as the prompts, [..] show that this self-talk approach substantially improves the performance of zero-shot language model baselines on four out of six commonsense benchmarks, and competes with models that obtain knowledge from external knowledge bases.	[Original:] a number of information seeking questions such as “what is the definition of ...” to discover [...] that the self-talk procedure substantially improves the performance of zero-shot language model baselines on four out of six commonsense benchmarks, and competes with models that obtain knowledge from external KBs.
even if the social bias is eliminated at the word level, the sentence-level bias can still exist due to the unlimited combination of words.[..] replacing sensitive words in the original sentence with words in a similar semantic but different bias directions	[Original:] even if the social bias is eliminated at the word level,the sentence-level bias can still be caused by the unbalanced combination of words [..] by replacing sensitive words in the original sentence with words in a similar semantic but different bias directions.
It proposes two methods to learn cross-lingual language models (XLMs): one unsupervised that only relies on monolingual data, and one supervised that leverages parallel data with a new cross-lingual language model objective. [...] Both the CLM and MLM objectives are unsupervised and only require monolingual data. For improving cross-lingual pre-training, they introduce a new translation language modeling (TLM) objective for improving cross-lingual pretraining. In the	[Original:] We propose two methods to learn cross-lingual lan- guage models (XLMs): one unsupervised that only relies on monolingual data, and one supervised that leverages parallel data with a new cross-lingual language model objective. [...] Both the CLM and MLM objectives are unsupervised and only require monolingual data. We introduce a new translation language modeling (TLM) objective for improving cross-lingual pretraining. In the

关于“A Roadmap for Big Model”综述报告问题调查和处理的通报

2022年4月13日，大模型综述报告“A Roadmap for Big Model”（以下简称“综述报告”）因涉嫌抄袭受到国内外关注。当日，北京智源人工智能研究院（以下简称“智源研究院”）立即启动内部调查，确认部分文章可能存在问题后，根据国家新闻出版署《学术出版规范 期刊学术不端行为界定》标准（CYT 174-2019）并参照《IEEE出版物服务和产品委员会操作手册》（IEEE Publication Services and Products Board Operations Manual）“对不同等级的抄袭行为进行判定的指南”，从严要求被质疑文章的作者向可能被抄袭的原作者发出了致歉信，并安排综述报告第一作者从arXiv撤稿，同时启动了第三方调查流程。

4月14日智源研究院理事会委托中国计算机学会作为第三方开展独立调查。智源研究院还就IEEE手册条款的理解和抄袭严重程度的认定，通过邮件咨询了IEEE学术出版规范负责人的意见。

根据CCF调查报告和IEEE专家反馈，智源研究院与16篇文章的通讯作者进行了沟通，对于存在问题文章的作者责任进行了核查与认定，现将调查和处理情况通报如下。

1. 组织失察责任认定

该综述报告由智源研究院大模型研究中心牵头组织、邀请国内外19个机构共100位科研人员分别撰写的16篇独立专题文章组成，每篇文章都有对应的撰写作者和通讯作者（除第12篇外），所有作者共同署名整个报告（这种组织模式参考了斯坦福大学“On the Opportunities and Risks of Foundation Models”（https://arxiv.org/pdf/2108.07258v2.pdf）一文的编撰方式）。综述报告首先上传至预印本网站arXiv，原计划经过修改完善后再正式出版。

智源研究院大模型研究中心作为组织单位，对综述报告撰写中可能存在的风险隐患缺少充分考虑，未采取必要措施避免相关问题出现，对整个事件负有监督失察责任。

综述报告的第一作者（智源大模型研究中心人员）未严格按照学术出版规范的流程执行，在未与其他作者确认的情况下，于2022年3月26日将综述报告上传至arXiv，负有主要组织责任。

An Example

SHANGHAI JIAO TONG UNIVERSITY

2. 两处抄袭的责任认定

综述报告10处被质疑片段中，2处属于抄袭。

第2篇文章的2.3.1节存在共计179个单词的多句重复，在最开始明确标注了引用文献，但未明确区别引用文字，且篇幅较大，属于《学术出版规范 期刊学术不端行为界定》"三、论文作者学术不端行为类型"中的"1.5 文字表述剽窃"："成段使用他人已发表文献中的文字表述，虽然进行了引注，但对所使用文字不加引号，或者不改变字体，或者不使用特定的排列方式显示"，达到《IEEE出版物服务和产品委员会操作手册》"对不同等级的抄袭行为进行判定的指南"中"第5级"（认定要点为"对一篇文章的主要部分逐字复制，虽有引注但缺乏清晰区分"。说明：抄袭共分5级，第1级最严重，第5级最轻微），由该文章的第二作者（智源大模型研究中心人员）完成，应负直接责任。该文章的通讯作者（智源大模型研究中心人员），未对该文章进行有效审查，应负失察责任。该篇文章第2.4.3节存在多句重复，有明确参考文献标注，属于规范引用。参与文章的其他作者撰写的部分未发现抄袭。

第 8 篇文章的 8.3.1 节存在 74 个单词的整句重复，无明确引用，属于抄袭，相关段落由该文章第一作者（智源大模型研究中心人员）完成，应负直接责任。该章其他作者是文章初稿完成人，初稿不涉及被质疑内容。该章第一作者未经通讯作者及其他作者同意将自己加为第一作者并对该章进行了大篇幅修改，且在文章发布前未与通讯作者确认，因此该章的通讯作者和其他作者没有责任。

上述两名作者已经按照IEEE手册的对应纠正措施向原作者致歉，并得到原作者谅解，履行了应该承担的相关学术责任。

An Example

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3. 四处引用不规范的责任认定

除前述2处抄袭外，综述报告10处被质疑片段中，尚有部分片段属于引用不规范，但不构成抄袭，其他被质疑部分属于规范引用。具体认定如下：

第10篇文章存在少数重复文字，是在明确添加标注引用参考文献情况下的转述，属于规范引用。

第12篇文章的12.2.3节存在共计36个单词的重复，无整句重复，相关内容由该文章第二作者完成。重复内容包括两个部分，一部分包含17个重复单词，属于规范引用参考文献；另一部分包含19个重复单词，在对相关领域介绍时，引用了其他论文引言部分对于本领域的总结，但在本句中未标注引用参考文献，属于引用不规范，但不构成抄袭。该文章无通讯作者，其他作者是文章的完成人，所撰写的部分未发现抄袭。

第14篇文章14.2.2节一处多句63个单词重复，有明确参考文献标注，属于规范引用。14.2.3节一处一句30个单词重复，有明确参考文献标注，属于规范引用。14.2.2节另存在一处一句29个单词的重复，文字上指明了引用对象，但本句没有直接添加引用，相关段落由该文章的第二作者完成；14.2.3节另存在一处一句27个单词重复，在14.2.3节中有参考文献标注，在本句中没有直接标注，相关段落由该文章的第四作者完成，上述两处属于引用不规范，但不构成抄袭。该文章其他作者撰写的部分未发现抄袭。

第16篇文章16.1节一处存在多句重复，相关段落由第二作者完成。该段落起始处对参考文献有明确引用，后续其他句子存在本句未直接标注的情形，属于引用不规范，但不构成抄袭。该文章其他作者撰写的部分未发现抄袭。

综述报告第3、4、5、6、7、9、11、13、15、17篇文章未发现抄袭。

An Example

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4. 处理和整改情况通报

智源研究院在质疑发生后，对照国家新闻出版署《学术出版规范 期刊学术不端行文界定》标准并参照《IEEE出版物服务和产品委员会操作手册》对抄袭的认定指南，从严要求，安排可能存在问题文章的作者向原作者进行了书面致歉，均已得到原作者反馈和谅解。同时，安排第一作者完成从arXiv撤稿。上述的抄袭和引用不规范的调查结论也已通知所有作者并获得确认。对照《IEEE出版物服务和产品委员会操作手册》对抄袭行为的处罚措施，智源研究院和相关责任人已经从严履行了应该承担的相关学术责任。

鉴于上述两处抄袭和组织失察责任人均为智源研究院大模型研究中心人员，智源研究院决定重组该部门，上述相关责任人均已主动离职。

除上述智源研究院相关责任人外，综述报告其他所有作者没有抄袭及学术不端行为。在此对此次事件给这些作者造成的负面影响和困扰表示诚挚歉意！

针对此次事件发现的论文发表流程中的风险漏洞，智源研究院已经整改了论文发表流程，并修订完善了科研诚信与学风建设制度。后续，智源研究院计划与学界和业界合作，制定更严谨的文献引用规范，开发论文和代码开源检测工具和系统，避免再次出现类似问题。

再次诚挚感谢各界朋友对智源研究院的监督和批评！

北京智源人工智能研究院

2022年7月15日

Misappropriation Example

A paper for Prof. Bird:

> The parrot is a remarkable bird in many respects. In terms of intelligence, humor, and manual dexterity, it is unequalled in the avian kingdom.

Misappropriation Example

Jones, wrong way:

> Parrots are excellent mimics. But the parrot is a remarkable bird in many other respects. In terms of intelligence, humor, and manual dexterity, it is unparalleled in the avian kingdom.

Jones, right way:

> Parrots are excellent mimics. But in addition, as Smith (2020) observes, "in terms of intelligence, humor, and manual dexterity, they are unequalled in the avian kingdom."

Citation Etiquette

Cite other people's work freely and often:

- Avoid antagonizing your reviewers by failing to acknowledge their contributions.
- Demonstrate your mastery of the literature.
- Make new friends. (Scholars love to be cited.)
- Encourage others to cite your work in return.

Misappropriation of Citations

Citations are good, but stealing citations is not good.

Citations are good, but stealing citations is not good.

Prof. Bird:

> Rat head direction cells with cosine tuning curves have been found in parietal / retrosplenial cortex (Chen, 1989).

Jones, wrong way:

> Some robots use inertial guidance for maintaining heading information in unfamiliar environments. There is evidence for a similar mechanism in the parietal/retrosplenial cortex of rats (Chen, 1989).

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What's wrong?

Misappropriation of Citations

Jones, wrong way:

> Some robots use inertial guidance for maintaining heading information in unfamiliar environments. There is evidence for a similar mechanism in the parietal/retrosplenial cortex of rats (Chen, 1989).

Chen (1989) turns out to be an unpublished PhD thesis that Jones has never seen, and wouldn't comprehend if he had.

Jones, right way:

> Some robots use inertial guidance for maintaining heading information in unfamiliar environments. There is evidence for a similar mechanism in the parietal/retrosplenial cortex of rats (Smith, 2005, citing Chen, 1989).

Misappropriation of Ideas

A researcher must not present someone else's ideas as his or her own.

- Cite your source!

Misappropriation of Ideas

A researcher must not present someone else's ideas as his or her own.

- Cite your source!

Even if the originator of the idea doesn't care about credit, it is improper to present their idea as one's own.

Right way

Adding "eye of newt" to the mixture produced a higher reaction rate and, ultimately, a far more potent product.[1]

[1] We are grateful to Mr. A. E. Newman, a high school student who was visiting our lab for the day, for suggesting this important step.

You have published a Chinese paper, in which you introduce an interesting model.

After one year, you proposed an algorithm for the model, and submitted to an English Journal, in which the model is inevitable mentioned.

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After one year, you proposed an algorithm for the model, and submitted to an English Journal, in which the model is inevitable mentioned.

Will you cite your Chinese paper in your English one?

Responsibilities of a Reviewer

Do your Fair Share of Reviewing

Number one rule: Promptly return the manuscript if you are not qualified to review it.

Judge Quality Objectively

With due regard to scientific standards, but

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With due regard to scientific standards, but

With respect for the intellectual independence of the authors.

Avoid Potential Conflicts of Interest

Either decline to review the manuscript, or fully disclose the conflict to the editor.

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Do not review manuscripts where you have a personal or professional connection to the author.

Treat Manuscripts as Confidential

Don't turn the manuscript you just reviewed into a course handout, even if it's wonderfully relevant.

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Wait until it's published.

Adequate Support for Judgments

Provide adequate support for your judgments, including citations.

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Wrong way:

> The author's results must be wrong, since they conflict with those of Bovik, who invented the field.

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Provide adequate support for your judgments, including citations.

Wrong way:

> The author's results must be wrong, since they conflict with those of Bovik, who invented the field.

Right way:

> The authors should explain the discrepancies between their results and the seminal work of Bovik ("Short messages over long distances", Journal of Hyperspace Zephygrams, vol. 1, no. 1, pp. 1-22, January 2007.

Know the Literature

Point out missing citations.

Point out missing citations.

Call the editor's attention to any substantial similarity between this manuscript and one already published or currently submitted to another journal.

Turn in All Reviews Promptly

Someone's degree/promotion/tenure case may hang on your decision.

Review Misconduct

Do not use the ideas or results in a manuscript except with permission of the author.

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You can abandon an approach the paper shows will be unsuccessful.

Review Misconduct

Do not use the ideas or results in a manuscript except with permission of the author.

You can abandon an approach the paper shows will be unsuccessful.

But you cannot use a new technique disclosed in the paper without first obtaining the author's permission.

Discussion

Scientist A submits a paper to a leading journal.

Editor B assigns it to scientist C to review.

C thinks the data are interesting, but the computer model is naïve and the results unimpressive. Since the model is the focus of the paper, C recommends the paper be rejected, and explains why.

C is an experienced computer modeler.

C believes that an approach he developed two years ago would be much better suited to modeling A's data, if extended in a certain direction.

C would like access to A's data, but could do the experiment with simulated data, or data from someone else's lab, if necessary.

C is very concerned about the appearance of impropriety, and wants to act in a responsible and professional manner.

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What should C do?

Reviews That Sting

At some point in you career, a sharp-tongued reviewer is going to cut you to ribbons.

At some later point, you will review a paper by some fool in desperate need of a clue, and will be sorely tempted to cut them to ribbons.

Resist this urge. Remember how it felt when someone did it to you.

Failure to Disclose

Disclosure of potential conflicts of interest is always a good idea.

- It's insurance against accusations of misconduct.

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Disclosure of potential conflicts of interest is always a good idea.

- It's insurance against accusations of misconduct.

Failure to disclose may lead to:

- An appearance of impropriety
- Jail time (e.g., for violating disclosure requirements in a stock offering.)

Example of Poor Disclosure

From the back of an MIT Press book jacket

> "This wonderfully lucid book describes what history may judge to be the second state in the evolution of .... It may take generations to unfold the implications of this new species of artifact – but author and his colleagues have already made an impressive beginning."

What's Not Disclosed?

The endorser is the author's thesis advisor, and hence one of the "colleagues" being lauded.

The endorser has a financial interest in the company that is commercializing the "artifact" described in the book.

Talking to the Public

In general, scientists should not announce discoveries to the public before they have undergone peer review.

Deliberately avoiding peer review for personal gain may constitute professional misconduct.

Fleishman and Pons "Cold Fusion" Case

In early 1989, chemists Martin Fleischmann and Stanley Pons at the University of Utah, Salt Lake City, made a claim that shocked and galvanized chemists and physicists, and excited society with its potential implications for clean, cheap energy.

At a press conference, Fleishmann and Pons announced what would become known as cold fusion — the nuclear fusion of hydrogen at room temperature rather than inside a star. They described a startling process in heavy water (that is, water molecules with deuterium atoms replacing the normal hydrogens) in which the electrolysis of a salt solution could, so they said, make deuterium atoms absorb into a palladium electrode at such a high density that their nuclei merged, producing energy and the neutron and γ-ray emissions that are telltale signs of fusion.

Philip Ball. Lessons from cold fusion, 30 years on. Nature, Vol. 569, 601, 2019

Technical issues sometimes have to be simplified when explaining research to the public, but:

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1. Don't oversell your results.

Talking to the Public

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Technical issues sometimes have to be simplified when explaining research to the public, but:

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3. Make sure the technical details are available at the time of any public announcements, so the facts can be checked by any scientist who cares to do so.

Talking to the Public

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3. Make sure the technical details are available at the time of any public announcements, so the facts can be checked by any scientist who cares to do so.
4. Don't present a shoddy and overhyped undergraduate research project as "The Shanghai Jiao Tong University Study" unless the representative gives permission to attach SJTU's name to it.

Pointing out flaws in competing approaches is fine. But be respectful of other researchers working in your area.

Who do you think is going to be reviewing your papers and grant proposals?

Praise good behavior in public.

Praise good behavior in public.

Criticize bad behavior (e.g., failure to cite) in private.

Etiquette

Praise good behavior in public.

Criticize bad behavior (e.g., failure to cite) in private.

If public criticism is necessary, stick to objective facts. Personal attacks are never appropriate.

Get your supervisor's advice.

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Sometimes misunderstandings or unhappy situations can be cleaned up through mediation by a third party.

Dealing with Problems

Get your supervisor's advice.

If you have a problem with your supervisor, discuss it with him or her before seeking outside opinions.

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Sometimes misunderstandings or unhappy situations can be cleaned up through mediation by a third party.

In the event of serious misconduct, charges may be filed with the School/University's office.

A Top Conference paper and A PhD Candidate Killed Himself

SHANGHAI JIAO TONG UNIVERSITY

3D-based Video Recognition Acceleration by Leveraging Temporal Locality

Huixiang Chen*, Mingcong Song*, Jiechen Zhao*, Yuting Dai‡, Tao Li*
*IDEAL Lab, University of Florida; ‡Guizhou University
{stanley.chen, songmingcong, jiechen.zhao}'@ufl.edu, yutingdai90@gmail.com, taoli@ece.ufl.edu

Abstract

Recent years have seen an explosion of domain-specific accelerator for Convolutional Neural Networks (CNN). Most of the prior CNN accelerators target neural networks on image recognition, such as AlexNet, VGG, GoogleNet, ResNet, etc. In this paper, we take a different route and study the acceleration of 3D CNN, which are more computational-intensive than 2D CNN and exhibits more opportunities. After our characterization on representative 3D CNNs, we leverage differential convolution across the temporal dimension, which operates on the temporal delta of imaps for each layer and process the computation bit-serially using only the effectual bits of the temporal delta. To further leverage the spatial locality and temporal locality, and make the architecture general to all CNNs, we propose a control mechanism to dynamically switch across spatial delta dataflow and temporal delta dataflow. We call our design temporal-spatial value aware accelerator (TSVA). Evaluation on a set of representation NN networks shows that TSVA can achieve an average of 4.24× speedup and 1.42× energy efficiency. While we target 3D CNN for video recognition, TSVA could also benefit other general CNNs for continuous batch processing.

1. Introduction

The end of Moore's law [1] and Dennard scaling [2], and the consequently dark silicon phenomenon [3] has led to the end of rapid improvement of general-purpose program performance. Instead of improving the general-purpose compu-

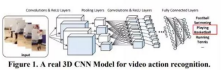


Figure 1. A real 3D CNN Model for video action recognition.

dimensional convolution neural networks (3D-CNN) have demonstrated their outstanding classification performance in video recognition.

Video-based 3D CNN inferences the activity based on a sequence of frames extracted directly from the video. It involves the identification of different actions across video clips (i.e. a sequence of frames) where the action may or may not be performed throughout the entire duration of the video [21]. It has been tough for the following reasons: (1) High computational cost. For instance, a simple 2D convolution network for image classification for 101 classes has just ~5M parameters, whereas the same architecture inflated to a 3D structure results in ~33M parameters [21]. It also takes 3 to 4 days to train a 3D convolutional neural network on UCF101 datasets [27] and about two months on Sports-1M [7]. (2) Capturing long context action involves capturing short-term temporal context across frames [21]. There is a local and global context (motion information) which needs to be captured for robust predictions.

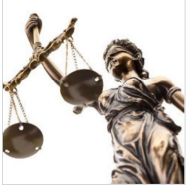
ISCA 2019

A Top Conference paper and A PhD Candidate Killed Himself

NEWS

Upholding ACM's Principles

By Marty J. Wolf, Don Gotterbarn, Michael Kirkpatrick
Communications of the ACM. August 2021, Vol. 64 No. 8, Page 21
10.1145/3473051
Comments



In response to serious violations against ACM's Code of Ethics and Professional Conduct, the ACM Council voted unanimously to revoke the ACM membership of Tao Li, a professor of computer engineering at the University of Florida, at its meeting on June 11, 2021. The Committee on Professional Ethics (COPE) recommended this action to Council after considering the evidence it received concerning Li's repeated violations of the ACM's Code of Ethics (https://www.acm.org/code-of-ethics). Council's action demonstrates ACM's commitment to advancing computing as a profession and as a service to society. ACM is not alone in this commitment. Indeed, other professional organizations have adopted ACM's Code of Ethics indicating their support of its values and the positive impact its Principles afford the computing community.

Both ACM and IEEE received complaints about Li's actions surrounding two computer architecture conferences: The 2019 IEEE International Symposium on Computer Architecture (ISCA) and the 2017 ACM Architectural Support for Programming Languages and Operating Systems (ASPLOS). A Joint Investigation Committee (JIC) was convened in early 2020 and a team of professional investigators were hired. As a result of the investigation, JIC filed an ACM Code of Ethics violation complaint against Li, submitting as evidence the investigators' final report. COPE reviewed the evidence and determined that Li willfully violated scientific research integrity standards. Quite simply, Li orchestrated an attack on the ethical computing values expressed in the ACM Code of Ethics and most other codes of scientific conduct.

Handling Misconduct

Handle allegations of misconduct with as much confidentiality as possible.

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People's careers are at stake.

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People's careers are at stake.

Remember that there are two sides to every story.

Scientific Misconduct

Scientific Misconduct: FFP

Fabrication: making up data or results and recording or reporting them.

Falsification: manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

Plagiarism: appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

There be a significant departure from accepted practices of the relevant research community.

The misconduct be committed intentionally, knowingly, or recklessly.

The allegation be proven by a preponderance of the evidence.

Types of Scientific Misconduct

Misappropriation of Ideas: taking the intellectual property of others, perhaps as a result of reviewing someone else's article or manuscript, or grant application and proceeding with the idea as your own.

Plagiarism: utilizing someone else's words, published work, research processes, or results without giving appropriate credit via full citation.

Self-plagiarism: recycling or re-using your own work without appropriate disclosure and/or citation.
Any form of plagiarism can be avoided by using plagiarism checker tools available online.

Impropriety of Authorship: claiming undeserved authorship on your own behalf, excluding material contributors from co-authorship, including non-contributors as authors, or submitting multi-author papers to journals without the consensus of all named authors.

Failure to Comply with Legislative and Regulatory Requirements: willful violations of rules concerning the safe use of chemicals, care of human and animal test subjects, inappropriate use of investigative drugs or equipment, and inappropriate use of research funds.

Types of Scientific Misconduct

Violation of Generally Accepted Research Practices: this can include the proposal of the research study, manipulation of experiments to generate preferred results, deceptive statistical or analytical practices to generate preferred results, or improper reporting of results to present a misleading outcome.

Data Fraud: rather than manipulate the experiments or the data to generate preferred results, this transgression simply fabricates the data entirely.

Failure to Support Validation of Your Research: by refusing to supply complete datasets or research material needed to facilitate validation of your results through a replication study.

Failure to Respond to Known Cases of Unsuccessful Validation Attempts: published research that is found to be flawed should be retracted from the journal that published it.

Inappropriate Behavior in Relation to Suspected Misconduct: failure to cooperate with any claims of misconduct made against you, failure to report known or suspected misconduct, destruction of any evidence related to any claim of misconduct, retaliation against any persons involved in a claim of misconduct, knowingly making false claims of misconduct.

Label Assignment Distillation for Object Detection

Anonymous Author(s)
Affiliation
Address
email

Abstract

Knowledge distillation methods are proved to be promising on improving the performance of neural networks without extra computational expense at the inference time. There have been a few knowledge distillation methods especially designed for object detection. However, most of these methods only focus on feature-level distillation and label-level distillation, while the label assignment step, a unique and vital procedure for object detection, is neglected. In this work, we propose a simple and effective knowledge distillation method focusing on label assignment in object detection, where the student network's positive and negative samples are selected resulting from the teacher network's predictions. Our method shows encouraging results on the MS COCO 2017 benchmark, and can not only be applied to both one-stage detectors and two-stage detectors, but also be utilized orthogonally with other knowledge distillation methods.

is annotated with a green bounding box, while locations assigned to this ground-truth are marked with white points. As we can see, FCOS strategy will always select locations around the center of the bounding box regardless of object appearances, which may results in false positives. However in our method, locations are more likely to lie in salient area. The teacher network can help the student get rid of harmful locations and find more suitable locations for object predictions.

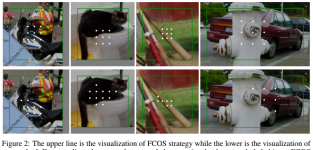


Figure 2: The upper line is the visualization of FCOS strategy while the lower is the visualization of our method. For complicated cases such as crowded, eccentric, slender or occluded objects, FCOS strategy has difficulty in selecting positive locations with proper contexts, while a teacher network is able to find these locations to guide a student network.

Label Assignment Distillation for Object Detection

Minghao Gao[1], Hailun Zhang[1], Yige Yan[2]
[1]Beijing Institute of Technology, China
[2]Hohai University, China

Abstract

Knowledge distillation methods are proved to be promising in improving the performance of neural networks and no additional computational expenses are required during the inference time. For the sake of boosting the accuracy of object detection, a great number of knowledge distillation methods have been proposed particularly designed for object detection. However, most of these methods only focus on feature-level distillation and label-level distillation, leaving the label assignment step, a unique and paramount procedure for object detection, by the wayside. In this work, we come up with a simple but effective knowledge distillation approach focusing on label assignment in object detection, in which the positive and negative samples of student network are selected in accordance with the predictions of teacher network. Our method shows encouraging results on the MSCOCO2017 benchmark, and can not only be applied to both one-stage detectors and two-stage detectors but also be utilized orthogonally with other knowledge distillation methods.

transformed to object detection, it may generate an unsatisfying performance.

Amongst several challenges in applying knowledge distillation to object detection, where and how to supervise the student network from detection ground-truths and the teacher network's predictions [10] is of vital importance. FGFI [25] point out that distilling the whole feature map is sub-optimal for object detection, so they only preserve important areas for distillation. Chen *et.al.*, [2] propose weighted and bounded losses adapted to the regression task. Nevertheless, all these methods are designed using image classification distillation like feature-level and label-level distillation for reference, while for object detection, some unique topics in knowledge distillation are not taken into consideration.

In object detection, as the number of ground-truths on each image is uncertain. firstly, we have to pre-define a group of samples/anchors or locations on the feature map/and select a portion of them as positive samples for training. After that, they are removing duplicated predictions relied on some methods like Non-maximum suppression (NMS) during the inference time. The assessment me-

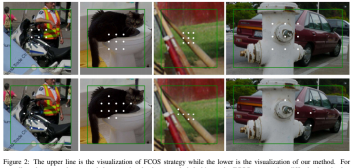
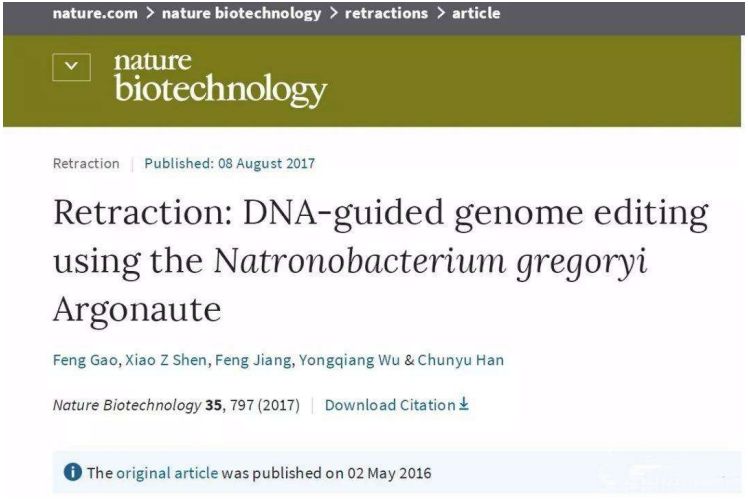


Figure 2: The upper line is the visualization of FCOS strategy while the lower is the visualization of our method. For complicated cases such as crowded, eccentric, slender or occluded objects, the FCOS strategy has difficulty in selecting positive locations with proper contexts, while a teacher network can find these locations to guide a student network.

Robust to different backbones. Our method is robust when the teacher network and the student network use backbones with different architectures. We intentionally select two backbones with completely distinctive architectures: ResNet [6] and ShuffleNetV2 (SNetV2) [15] , to perform our experiments. Results in Table 4 show that the improvements are more likely to lie in the salient area. The teacher network can help students get rid of harmful locations and find more suitable locations for object predictions.

To explore the nature of our method, we count the average number, quality (defined in Equation 4), and loss value (calculated on the teacher network) of positive samples for



nature.com > nature biotechnology > retractions > article

nature biotechnology

Retraction | Published: 08 August 2017

Retraction: DNA-guided genome editing using the *Natronobacterium gregoryi* Argonaute

Feng Gao, Xiao Z Shen, Feng Jiang, Yongqiang Wu & Chunyu Han

Nature Biotechnology **35**, 797 (2017) | Download Citation

The original article was published on 02 May 2016

怎么看AI顶会论文不公布代码?

知乎 · 44 个回答 · 165 关注 ›

匿名用户

138 人赞同了该回答

原来update就是果断宣布不开源了。这么坚决，我猜文章结果一定能复现。

直接说不公布的也就算了，比较恶心的是搞个空的github目录说coming soon[a]，然后就再也没更新过。比如这个github.com/jxhuang0508/...，说coming soon结果一年多了也没release code，发邮件也不回。

Trimming: smoothing irregularities to make the data appear extremely accurate and precise.

Cooking: retaining only those results that fit the theory, and discarding others.

Forging: inventing some or all of the research data that are reported; even reporting experiments that were never performed.

Some Examples

Painting mice with a magic marker to fake the results of a genetic experiment. (True case.)

Fabricating some missing data points in order to complete a study in time for a deadline.

Favorite Excuses for Trimming and Cooking

"those outlier points must be measurement error"

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Favorite Excuses for Trimming and Cooking

"those outlier points must be measurement error"

"they would only confuse the reader"

"everybody cleans up their data before publication"

Office Regulations and Many, Many Cases

一些政策

科技部，《关于加强我国科研诚信建设的意见》，2009.8.26

中共中央办公厅、国务院办公厅，《关于进一步加强科研诚信建设的若干意见》，2018.05.30

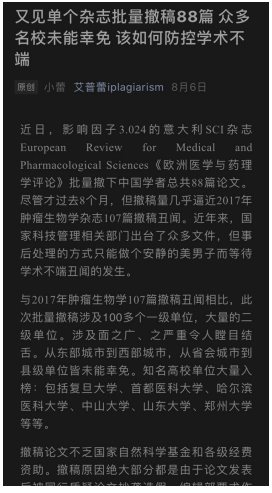
中共中央办公厅国务院办公厅，《关于进一步弘扬科学家精神加强作风和学风建设的意见》，2019.06.11

科技部，《科研诚信案件调查处理规则（试行）》，2019.10.09

卫健委，《关于印发医学科研诚信和相关行为规范的通知》，2021.01.27

中共中央办公厅国务院办公厅，《关于加强科技伦理治理的意见》，2022.03.20

...



又见单个杂志批量撤稿88篇 众多名校未能幸免 该如何防控学术不端

原创 小蕾 艾普蕾iplagiarism 8月6日

近日，影响因子3.024的意大利SCI杂志European Review for Medical and Pharmacological Sciences《欧洲医学与药理学评论》批量撤下中国学者总共88篇论文。尽管才过去8个月，但撤稿量几乎逼近2017年肿瘤生物学杂志107篇撤稿丑闻。近年来，国家科技管理相关部门出台了众多文件，但事后处理的方式只能做个安静的美男子而等待学术不端丑闻的发生。

与2017年肿瘤生物学107篇撤稿丑闻相比，此次批量撤稿涉及100多个一级单位，大量的二级单位。涉及面之广、之严重令人瞠目结舌。从东部城市到西部城市，从省会城市到县级单位皆未能幸免。知名高校单位大量入榜：包括复旦大学、首都医科大学、哈尔滨医科大学、中山大学、山东大学、郑州大学等等。

撤稿论文不乏国家自然科学基金和各级经费资助。撤稿原因绝大部分都是由于论文发表

浙大北航等机构学者被国外期刊撤稿30余篇：伪造同行评议

2020-05-07 12:45

因“学术不端”问题，国内学术圈又迎来了一次规模不小的“地震”。

今年4月，国际著名学术出版集团施普林格（Springer）旗下期刊 Multimedia Tools and Applications 批量撤销33篇论文，加上该期刊近两年撤下的另8篇论文，总共有41篇，其中39篇论文的主要作者来自中国。

撤稿理由包括剽窃他人未发表手稿（duplicated from an unpublished manuscript）、操纵作者身份（authorship manipulation）、试图颠覆同行评议发表系统（an attempt to subvert the peer review process）、内容抄袭（substantial overlap most notably with the article cited）、图像未经允许不当复制（figure

A Report

SHANGHAI JIAO TONG UNIVERSITY

Multimedia Tools and Applications 期刊被撤论文				
论文题目	被撤原因	作者单位	通讯作者	项目支持
Cross-camera multi-person tracking by leveraging fast graph mining algorithm	剽窃他人未发表手稿；大量文本重叠，尤其是与引用的文章重叠；图像未经允许不当复制；操纵作者身份、试图颠覆同行评议发表系统	国网浙江省电力公司信息通信分公司、厦门亿力吉奥信息科技有限公司（Xiamen Great Power GEO Information Technology Co., Ltd.）	Yuteng Huang	
Fast quadratic-programming-based graph matching algorithm with image applications	剽窃他人未发表手稿、操纵作者身份、试图颠覆同行评议发表系统	国网浙江省电力公司信息通信分公司	Yuteng Huang	
Analysis of security operation and maintenance system using privacy utility in media environment	图像未经允许不当复制、操纵作者身份、试图颠覆同行评议发表系统	国网浙江省电力公司、国网浙江省电力公司嘉兴供电公司	Zhengwei Jiang	
Camera network analysis for visual surveillance in industrial electronic context	剽窃他人未发表手稿；大量文本重叠，尤其是与引用的文章重叠；图像未经允许不当使用；操纵作者身份；试图颠覆同行评议发表系统	国网浙江省电力公司	Zhengwei Jiang	
Deeply fusing multimodal features in hypergraph	操纵作者身份、试图颠覆同行评议发表系统	国网浙江省电力公司信息通信分公司、浙江华云电力实业集团公司	Caiyou Zhang	
A new deep representation for large-scale scene classification	大量文本重叠，尤其是与引用的文章重叠；操纵作者身份、试图颠覆同行评议发表系统	国网浙江省电力公司信息通信分公司、浙江华云电力实业集团公司	Caiyou Zhang	
A method of multi-criteria set recognition based on deep feature representation	大量文本重叠，尤其是与引用的文章重叠；操纵作者身份、试图颠覆同行评议发表系统	国网浙江省电力公司信息通信分公司	Caiyou Zhang	
Deep network for visual saliency prediction by encoding image composition	大量文本重叠，尤其是与引用的文章重叠；操纵作者身份、试图颠覆同行评议发表系统	国网浙江省电力公司信息通信分公司	Caiyou Zhang	
Discovering Graphical Visual Features for Abnormal Semantic Event Detection	大量文本重叠，尤其是与引用的文章重叠	国网浙江省电力公司信息通信分公司、杭州大有科技发展有限公司	Fenghua Wang	
Image quality tendency modeling by fusing multiple visual cues	大量文本重叠，尤其是与引用的文章重叠；图像未经允许不当使用；操纵作者身份、试图颠覆同行评议发表系统	国网浙江省电力公司信息通信分公司、新加坡国立大学	Tengfei Wu	
Moving object surveillance using object proposals and background prior prediction	部分内容复制于多位作者撰写的未发表手稿、操纵作者身份、试图颠覆同行评议发表系统	国网浙江省电力公司信息通信分公司、新加坡国立大学、合肥工业大学	Tengfei Wu	
Robust high dynamic range image watermarking using nonlinear hybrid spread spectrum approach	未正确引用原始资料	国网浙江省电力公司信息通信分公司	Nian Cai	
Efficient object analysis by leveraging deeply-trained object proposals prediction model	部分内容未经授权复制于多位作者撰写的未发表手稿；大量文本重叠，尤其是与引用的文章重叠；图像未经允许不当复制；操纵作者身份和试图颠覆同行评议发表系统	国网浙江省电力公司信息通信分公司	Yiyang Yao	

A Report

SHANGHAI JIAO TONG UNIVERSITY

Multimedia Tools and Applications 期刊被撤论文				
论文题目	被撤原因	作者单位	通讯作者	项目支持
Internet-scale secret sharing algorithm with multimedia applications	剽窃他人未发表手稿、操纵作者身份、试图颠覆同行评议发表系统	常州工学院电气与光电工程学院	Chao Xiong	江苏省“333 高层次人才培养工程”研究项目（BRA2016111）、江苏省重点研发计划（BE2016200）、常州市科技计划项目（CE20175031）、电子信息测试技术安徽省重点实验室（依托单位：中国电子科技集团公司第四十一研究所）（YFKM-WHH-201705-01）、常州市高技术研究重点实验室（CM20173003）、江苏省高等学校重点实验室建设项目
Large-scale image-based fog detection based on cloud platform	剽窃他人未发表手稿、操纵作者身份、试图颠覆同行评议发表系统	常州工学院电气与光电工程学院	Chao Xiong	同上
Image steganography using cosine transform with large-scale multimedia applications	剽窃他人未发表手稿、图像未经允许不当复制、操纵作者身份、试图颠覆同行评议发表系统	常州工学院电气与光电工程学院	Chao Xiong	同上
Image-based reversible data hiding algorithm toward big multimedia data	剽窃他人未发表手稿	常州工学院电气与光电工程学院、中国电子科技集团公司第四十一研究所	Chao Xiong	同上
Image-based forgery detection using big data clustering	剽窃他人未发表手稿	常州工学院电气与光电工程学院、中国电子科技集团公司第四十一研究所	Chao Xiong	同上
Color image watermarking in big multimedia data applications	剽窃他人未发表手稿	常州工学院电气与光电工程学院、中国电子科技集团公司第四十一研究所	Chao Xiong	同上
Medical image encryption technique in big media environment	剽窃他人未发表手稿、操纵作者身份、试图颠覆同行评议发表系统	常州工学院电气与光电工程学院	Chao Xiong	江苏省重点研发计划（BE2016200）、常州市科技计划项目（CE20175031）、电子信息测试技术安徽省重点实验室（依托单位：中国电子科技集团公司第四十一研究所）（YFKM-WHH-201705-01）、常州市高技术研究重点实验室（CM20173003）、江苏省高等学校重点实验室建设项目

Multimedia Tools and Applications 期刊被撤论文				
论文题目	被撤原因	作者单位	通讯作者	项目支持
Boundary spanning strategies of internet companies in the context of big data	操纵作者身份和试图颠覆同行评议发表系统	北京航空航天大学经济管理学院	Taohua Ouyang	国家自然科学基金（71632002,71172176,71472012,71529001）
A novel semantic smoothing method based on log-bilinear model for bayesian text classification	大量文本重叠，尤其是与引用的文章重叠	武汉科技大学计算机科学与技术学院，智能信息处理与实时工业系统湖北省重点实验室、华中师范大学计算机学院	Maofu Liu	国家自然科学基金（61572223）
Visualized image segmentation for multi-object tracking by weak clustering technique	剽窃他人未发表手稿、操纵作者身份、试图颠覆同行评议发表系统	浙江大学航空航天学院	Liye Gui	国家自然科学基金（11772301）、浙江省自然科学基金（LY17F020016）
Utilizing a deep learning model to enhance video credibility verification system	图像未经允许不当使用、操纵作者身份、试图颠覆同行评议发表系统	中国计量大学计量测试工程学院	Yongjun Zheng	国家自然科学基金（51775530）、国家科技重大专项（2015ZX02101）
Flickr image quality evaluation by deeply fusing heterogeneous visual cues	剽窃他人未发表手稿、操纵作者身份、试图颠覆同行评议发表系统	中国计量大学计量测试工程学院、北京师范大学新闻传播学院	Yongjun Zheng	国家科技重大专项（2015ZX02101）、国家自然科学基金（51775530）、国家社会科学基金艺术学项目（2014CC03652）
Multi-layered multi-exemplar affinity propagation for temporal clustering of human motion	与一篇已发表的文章有大量的文本重复	国家数字交换系统工程技术研究中心、英国朴茨茅斯大学	Shao-Mei Li	国家科技支撑计划（2014BAH30B01）、国家自然科学基金（61379151），河南省杰出青年基金（144100510001）、信息保障技术重点实验室开放基金（KJ-14-108）
Image retargeting based on self-learning 3D saliency for content-aware data analysis	大量文本重叠，尤其是与引用的文章重叠	合肥工业大学计算机与信息学院、安徽科力信息产业有限责任公司	Yanxiang Chen	国家自然科学基金（61672201）、安徽省自然科学基金（1408085MKL76）、安徽省重点科技计划项目（15czz02074）
Detecting anomalous emotion through big data from social networks based on a deep learning method	大量文本重叠，尤其是与引用的文章重叠	合肥工业大学计算机与信息学院、合肥工业大学管理学院、日本神户大学计算机科学系	Xiao Sun	安徽省自然科学基金（1508085QF119）、国家自然科学基金重点项目（61432004，71571058，61461045）、中国博士后科学基金资助项目（2015M580532, 2017T100447）、国家自然科学基金（61472117）

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› Cell Physiol Biochem. 2017;41(4):1285-1297. doi: 10.1159/000464430. Epub 2017 Mar 8.

Mechanism of MicroRNA-146a/Notch2 Signaling Regulating IL-6 in Graves Ophthalmopathy

Ning Wang [1], Feng-E Chen [1], Zi-Wen Long [2 3 4]

Affiliations + expand

PMID: 28278511 DOI: 10.1159/000464430

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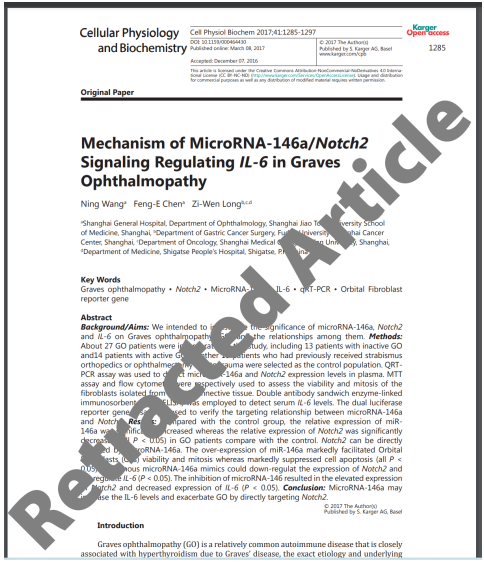

Cellular Physiology and Biochemistry

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Original Paper

Mechanism of MicroRNA-146a/*Notch2* Signaling Regulating *IL-6* in Graves Ophthalmopathy

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Key Words
Graves ophthalmopathy • *Notch2* • MicroRNA-146a • IL-6 • qRT-PCR • Orbital Fibroblast reporter gene

Abstract
Background/Aims: We intended to investigate the significance of microRNA-146a, *Notch2* and *IL-6* on Graves ophthalmopathy (GO) and the relationships among them. ***Methods:*** About 27 GO patients were included in this study, including 13 patients with inactive GO and14 patients with active GO, and the patients who had previously received strabismus orthopedics or ophthalmic decompression surgery were selected as the control population. QRT-PCR assay was used to detect microRNA-146a and *Notch2* expression levels in plasma. MTT assay and flow cytometry were respectively used to assess the viability and mitosis of the fibroblasts isolated from orbital connective tissue. Double antibody sandwich enzyme-linked immunosorbent assay (ELISA) was employed to detect serum *IL-6* levels. The dual luciferase reporter gene was designed to verify the targeting relationship between microRNA-146a and *Notch2*. ***Results:*** Compared with the control group, the relative expression of miR-146a significantly increased whereas the relative expression of *Notch2* was significantly decreased ($P < 0.05$) in GO patients compare with the control. *Notch2* can be directly targeted by microRNA-146a. The over-expression of miR-146a markedly facilitated Orbital fibroblasts (OFs) viability and mitosis whereas markedly suppressed cell apoptosis (all $P < 0.05$). Meanwhile, exogenous microRNA-146a mimics could down-regulat the expression of *Notch2* and up-regulate *IL-6* ($P < 0.05$). The inhibition of microRNA-146 resulted in the elevated expression of *Notch2* and decreased expression of *IL-6* ($P < 0.05$). ***Conclusion:*** MicroRNA-146a may promote the IL-6 levels and exacerbate GO by directly targeting *Notch2*.

Introduction

Graves ophthalmopathy (GO) is a relatively common autoimmune disease that is closely associated with hyperthyroidism due to Graves' disease, the exact etiology and underlying

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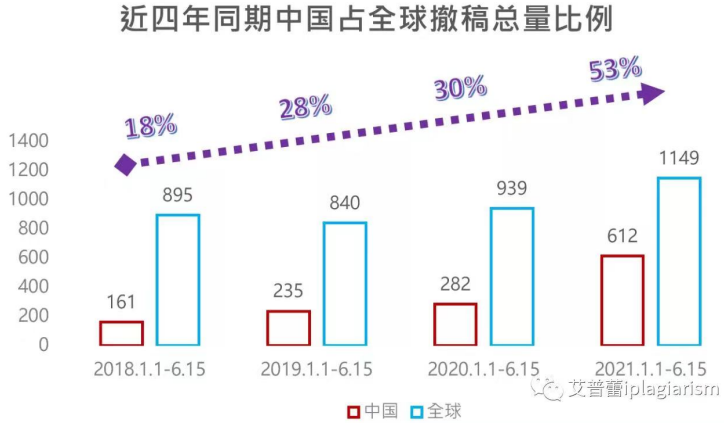
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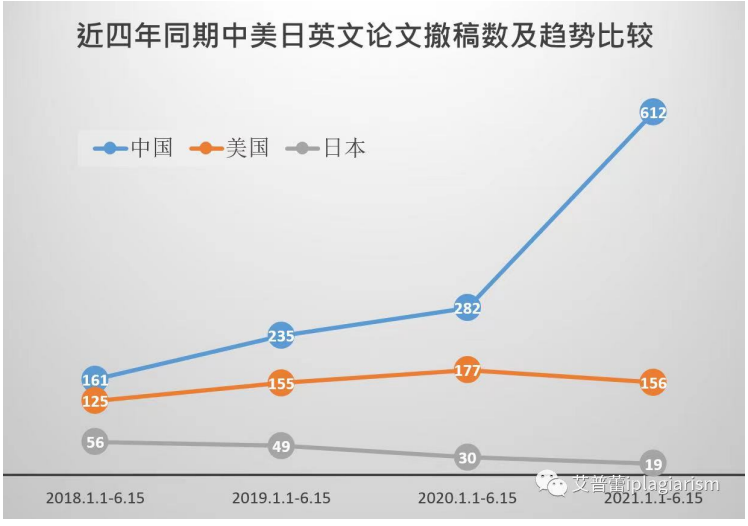

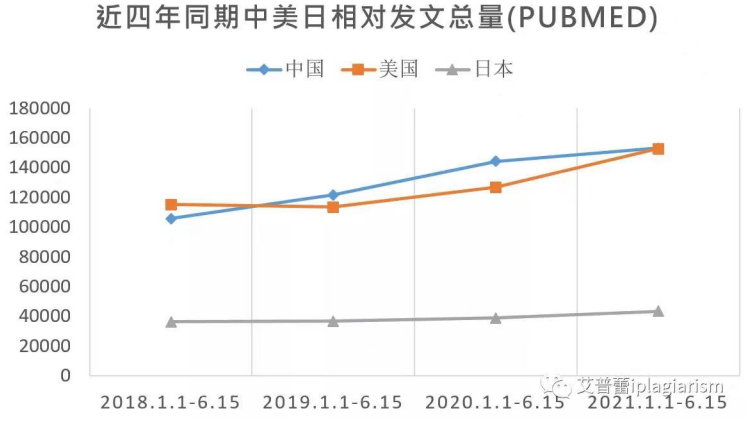

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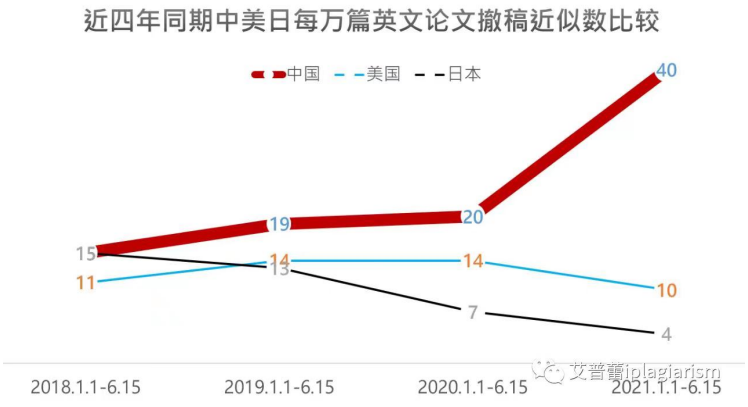

关于对卫贵武、鲁茂等发表论文存在操纵同行评议、重复发表等问题的处理决定

国科金监处〔2021〕16号

国家自然科学基金委员会监督委员会对卫贵武（先后就职于重庆文理学院、四川师范大学）、鲁茂（四川师范大学）等发表论文涉嫌学术不端问题组织开展了调查，涉及论文如下：

论文1：“Mao Lu, Guiwu Wei*, Fuad E. Alsaadi, Tasawar Hayat and Ahmed Alsaedi. Hesitant pythagorean fuzzy hamacher aggregation operators and their application to multiple attribute decision making. Journal of Intelligent & Fuzzy Systems, 2017, 33(2):1105-1117.”（标注基金号71571128、61174149）

论文2：“Guiwu Wei*, Fuad E. Alsaadi, Tasawar Hayat and Ahmed Alsaedi. Hesitant bipolar fuzzy aggregation operators in multiple attribute decision making. Journal of Intelligent & Fuzzy Systems, 2017, 33(2):1119-1128.”

论文3：“Guiwu Wei*, Mao Lu, Fuad E. Alsaadi, Tasawar Hayat and Ahmed Alsaedi. Pythagorean 2-tuple linguistic aggregation operators in multiple attribute decision making. Journal of Intelligent & Fuzzy Systems, 2017, 33(2):1129-1142.”（标注基金号71571128、61174149）

论文4：“Mao Lu, Guiwu Wei*, Fuad E. Alsaadi, Tasawar Hayat and Ahmed Alsaedi. Bipolar 2-tuple linguistic aggregation operators in multiple attribute decision making. Journal of Intelligent & Fuzzy Systems, 2017, 33(2):1197-1207.”（标注基金号71571128、61174149）

论文5：“Guiwu Wei* and Mao Lu. Pythagorean Hesitant Fuzzy Hamacher Aggregation Operators in Multiple-Attribute Decision Making. Journal of Intelligent Systems, 2019, 28(5):759-776.”（标注基金号71571128、61174149）

论文6：“Guiwu Wei*, Mao Lu, Xiyue Tang and Yu Wei. Pythagorean hesitant fuzzy Hamacher aggregation operators and their application to multiple attribute decision making. International Journal of Intelligent Systems, 2018, 33(6):1197-1233.”（标注基金号71571128、61174149）

经查，卫贵武作为通讯/第一署通讯作者发表的论文1、2、3、4均因存在操纵同行评议问题被公示社撤稿。卫贵武称其未发表上述4篇论文，但领取了科研奖励期并将这4篇论文列入其2015年度国家自然科学基金项目（批准号71571128）进展报告中。此外，卫贵武作为第一署通讯作者发表的论文5、6，还存在重复发表问题；鲁茂作为第一作者发表的论文1、4因操纵同行评议问题被公示社撤稿，鲁茂称其未发表上述2篇论文，但也领取了科研奖励。

经国家自然科学基金委员会监督委员会五届八次（综合专业委员会）审议、国家自然科学基金委员会2021年第一次委务会议审定，决定根据《国家自然科学基金条例》第三十五条第四项、《科研诚信案件调查处理规则（试行）》第二条、第三十三条和《国家自然科学基金委员会监督委员会对科学基金资助工作中不端行为处理办法（试行）》第十七条第四项的规定，撤销卫贵武国家自然科学基金项目“基于犹豫模糊集的多属性群决策理论与方法及应用研究”（批准号61174149）、“基于双边犹豫模糊语言集的多属性群决策方法及其应用研究”（批准号71571128），追回上述2个项目已拨资金，取消卫贵武国家自然科学基金项目申请资格5年（2021年1月7日至2026年1月6日），给予卫贵武通报批评；决定根据《科研诚信案件调查处理规则（试行）》第二条、第三十三条和《国家自然科学基金委员会监督委员会对科学基金资助工作中不端行为处理办法（试行）》第九条的规定，取消鲁茂国家自然科学基金项目申请资格3年（2021年1月7日至2024年1月6日），给予鲁茂通报批评。

关于对陈志文等发表的论文中存在虚构同行评议意见问题的处理决定

国科金监处〔2021〕17号

国家自然科学基金委员会监督委员会对上海大学陈志文等被撤稿论文涉嫌学术不端问题组织开展了调查，涉及论文如下：

论文1：“Zhiwen Chen*, Minghong Wu*, Chan-Hung Shek*, C. M. Lawrence Wu, Joseph K. L. Lai. Multifunctional tin dioxide materials: advances in preparation strategies, microstruc-ture, and performance. Chemical Communications, 2015, 51(13):1175-1184.”（标注基金号11074161、11375111、41373098、41430644、11025526、11428410）

论文2：“Zhiwen Chen*, Chan-Hung Shek, C. M. Lawrence Wu. Insights from investigations of tin dioxide and its composites: electron-beam irradiation, fractal assessment, and mechanism. Nanoscale, 2015, 7(38):15532-15552.”（标注基金号11074161、11375111、11428410）

论文3：“zhixiang Hu, Dayong Chen, Jingyu Dong, Qi Li, Zhiwen Chen*, Dongguang Yin, Bing Zhao*, C. M. Lawrence Wu, Chan-Hung Shek*. Facile synthesis of hierarchical Mn_3O_4 superstructures and efficient catalytic performance. Physical Chemistry Chemical Physics, 2016, 18(38):26602-26608.”（标注基金号11375111、11074161、11428410、11575105）

论文4：“Mei Wang, Liming Cheng*, Quanbao Li, Zhiwen Chen, Shilong Wang*. Two-dimensional nanosheets associated with one-dimensional single-crystalline nanorods self-assembled into three-dimensional flower-like Mn_3O_4 hierarchical architectures. Physical Chemistry Chemical Physics, 2014, 16(39):21742-21746.”（标注基金号11375111、11074161、11428410）

论文5：“Qingxiu Wang, Xianzheng Wu*, Lijun Wang, Zhiwen Chen, Shilong Wang*. Graphene-SnO_2 nanocomposites decorated with quantum tunneling junctions: preparation strategies, microstructures and formation mechanism. Physical Chemistry Chemical Physics, 2014, 16(36):19351-19357.”（标注基金号11375111、11074161）

经查，陈志文作为涉事5篇论文中3篇论文的通讯作者和另2篇论文的实际联系人，完成了5篇论文的投稿。其在推荐审稿人的过程中提供了虚假的邮箱地址，并使用这些虚假的邮箱，向杂志社回复了10份审稿意见。

经国家自然科学基金委员会监督委员会五届八次会议（综合专业委员会）审议、国家自然科学基金委员会2021年第一次委务会议审定，决定根据《科研诚信案件调查处理规则（试行）》第二条、第三十一条及第三十三条，并参照《国家自然科学基金委员会监督委员会对科学基金工作中不端行为的处理办法（试行）》第十七条第三项的规定，撤销陈志文国家自然科学基金项目“电子束辐射场作用下氧化镉的微结构演化及其性能研究”（批准号11375111）、“金属/半导体薄膜中分形团簇的纳米结构及其非线性特征”（批准号11074161），追回上述2个项目已拨资金，取消陈志文国家自然科学基金项目申请资格7年（2021年1月7日至2028年1月6日），给予陈志文通报批评。

国家自然科学基金委员会

2021年1月29日

关于对刘志斌等撤稿论文中存在代写代投、抄袭剽窃、
未经同意使用他人署名和擅自标注他人基金项目
等问题的处理决定

国科金监处〔2021〕126号

国家自然科学基金委员会监督委员会对西南石油大学刘志斌等撤稿论文“Hu Yisheng, Qin Songhai, Liu Zhibin*, Wang Yi. Existence of global solutions to a quasilinear Schrödinger equation with general nonlinear optimal control conditions. Boundary Value Problems, 2020.”（标注基金号41702286）涉嫌学术不端开展了调查。

经查，上述论文系通讯作者刘志斌委托第三方公司代写、代投，在此过程中第三方公司大量抄袭剽窃了他人论文内容并编造学术术语，刘志斌还未经同意使用他人署名并擅自标注他人国家自然科学基金项目，刘志斌对上述问题负全部责任。

经国家自然科学基金委员会监督委员会九届十次会议（综合专业委员会）审议，国家自然科学基金委2021年第十二次委务会议审定，决定根据《国家自然科学基金委员会监督委员会对科学基金资助工作中不端行为的处理办法（试行）》第十七条第四项、并参照《科研诚信案件调查处理规则（试行）》第二条第三项、第三十三条的规定，取消刘志斌国家自然科学基金项目申请资格5年（2021年7月20日至2026年7月19日），给予刘志斌通报批评。

国家自然科学基金委员会

2021年9月22日

2021年9月17日

关于对吴翼衍篡改身份信息违规申报基金项目
的处理决定

国科金监处〔2021〕100号

国家自然科学基金委员会监督委员会对吴翼衍涉嫌学术不端开展了调查。

经查，吴翼衍先后入职南京理工大学、桂林电子科技大学、同济大学、南方科技大学、德州大学、重庆邮电大学等高校，在聘用院校通过篡改姓名和证件号码违规申报多项国家自然科学基金项目（均未获资助），涉及基金项目如下：

项目1：2019年度国家自然科学基金面上项目；申请人：吴翼衍，证件号码360702198608299434；依托单位：电子科技大学

项目2：2019年度国家自然科学基金青年科学基金项目；申请人：吴翼衍，证件号码360702198608298634；依托单位：重庆邮电大学

项目3：2019年度国家自然科学基金青年科学基金项目；申请人：吴翼衍，证件号码25115493；依托单位：德州大学

项目4：2020年度国家自然科学基金青年科学基金项目；申请人：吴翼衍，证件号码360731190008295551；依托单位：南京理工大学

项目5：2020年度国家自然科学基金地区科学基金项目；申请人：吴灿延，证件号码360731198608290152；依托单位：桂林电子科技大学

项目6：2020年度国家自然科学基金面上项目；申请人：吴翼衍，证件号码360702198608293091；依托单位：同济大学

其中，2019年其同时申报了2项国家自然科学基金青年科学基金项目。

经国家自然科学基金委员会监督委员会五届十次会议（综合专业委员会）审议、国家自然科学基金委员会2021年第十三次委务会议审定，决定根据《国家自然科学基金条例》第二十四条、《科研诚信案件调查处理规则（试行）》第二十八条、《国家自然科学基金委员会监督委员会对科学基金资助工作中不端行为的处理办法（试行）》第九条、第十六条第二项的规定，永久取消吴翼衍国家自然科学基金项目申请和参与申请资格，给予吴翼衍通报批评。

国家自然科学基金委员会

2021年9月19日

关于对王宁等发表的论文存在数据造假、未经同意使用

他人署名并在项目申请书/调查过程中存在虚假信息

等问题的处理决定

国科金监处〔2022〕76号

国家自然科学基金委员会监督委员会对**上海交通大学王宁**等发表的论文“Ning Wang, Feng-E Chen*, Zi-Wen Long*. Mechanism of MicroRNA-146a/Notch2 Signaling Regulating IL-6 in Graves Ophthalmopathy. Cellular Physiology and Biochemistry, 2017, 41(4):1285-1297.”涉嫌学术不端开展了调查。

经查，该论文**存在数据造假、未经同意使用他人署名**等问题，第一作者王宁负主要责任。此外，王宁将该论文列入其国家自然科学基金项目（批准号82070971）申请书中，应对申请书中存在虚假信息的客观结果负责；王宁在调查过程中虚构论文形成过程及作者贡献，还应对未如实说明有关情况负责。

经国家自然科学基金委员会监督委员会五届十三次会议（生命医学专业委员会）审议、国家自然科学基金委员会2022年第8次委务会议审定，决定依照《国家自然科学基金项目科研不端行为调查处理办法》第四十条、第四十三条第一项、第三十六条第三项，撤销王宁国家自然科学基金项目“TRIM25泛素化UCP2调控SIRT3介导糖尿病视网膜病变氧化应激的机制研究”（批准号82070971），追回已拨资金，取消王宁国家自然科学基金项目申请和参与申请资格5年（2022年4月21日至2027年4月20日），给予王宁通报批评。

其他责任者另行处理。