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# Fake Science: Misconduct Galore and Proposed Counterattack

Guillaume Cabanac

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Seminar of the Micro Nano Bio Technologies Department  
LAAS-CNRS, Toulouse  
December 11th, 2023



<https://hal.science/hal-04225515v4>

# Fake science: Misconduct Galore and Proposed Counterattack

**Guillaume Cabanac**



The NanoBubbles project has received Synergy grant funding from the European Research Council (ERC), within the European Union's Horizon 2020 programme, grant agreement no. 951393.

**THREATS**

Hijacked

Journals

Fake

Conferences

×



Gold APC aka Author Pays  
(Author Processing Charges)



Predatory

×

Publishers

Grey

Publish or Perish

Paper mills

Authorship

Article

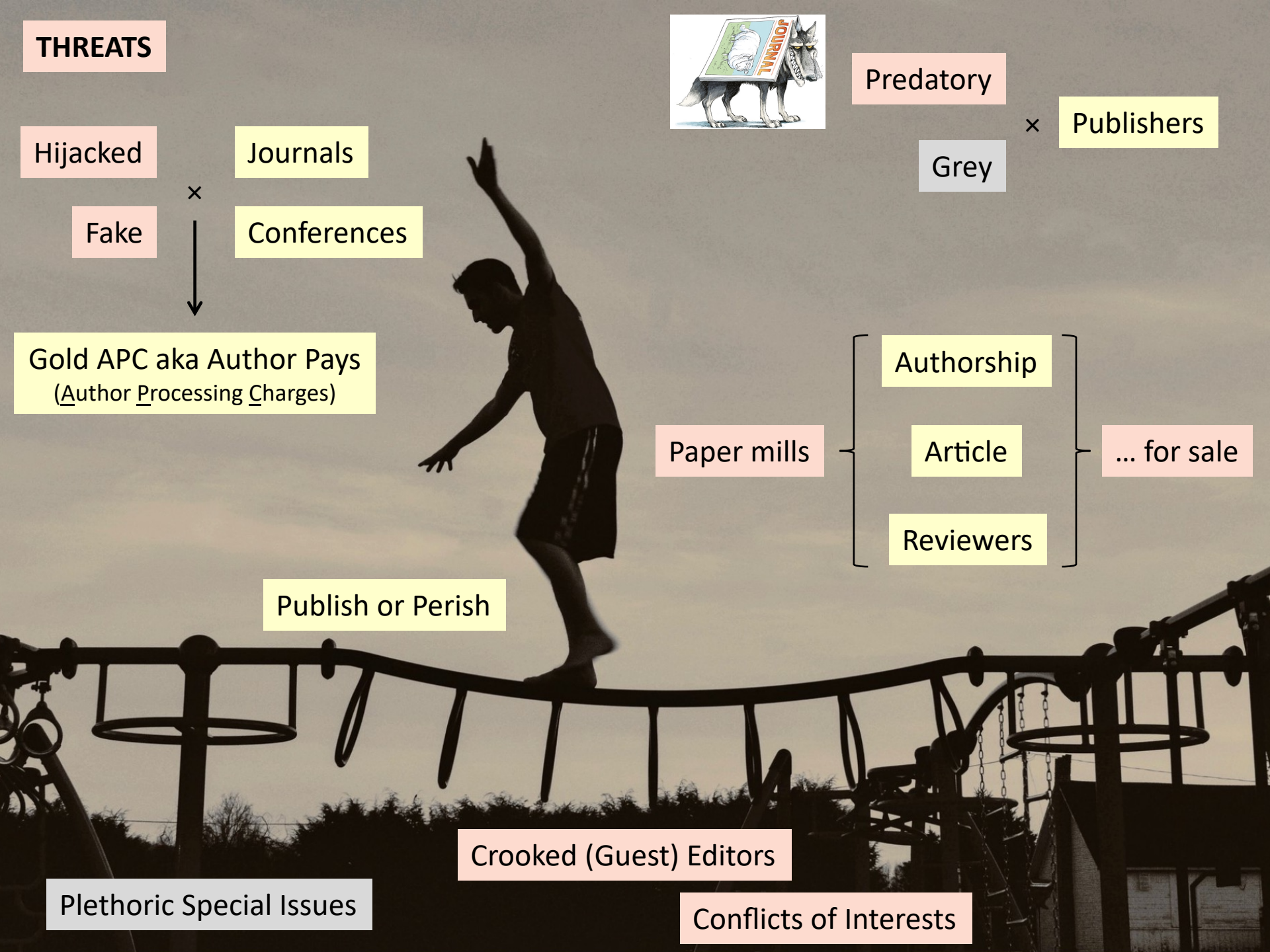
... for sale

Reviewers

Crooked (Guest) Editors

Plethoric Special Issues

Conflicts of Interests



**POLLUTION**

Gaming the Metrics

Highly Cited Researchers™

SCIgen

Guest

Authors

Machine Generation

Mathgen

Impersonated

×

Institutions

AI LLMs

Ghost

Hallucinations

Citation

Plantation

p-hacking

Image Doctoring  
aka  
Photoshopping

Ring/Cartel

Data Fabrication

Overgeneralisation

Miscitation

Spinning

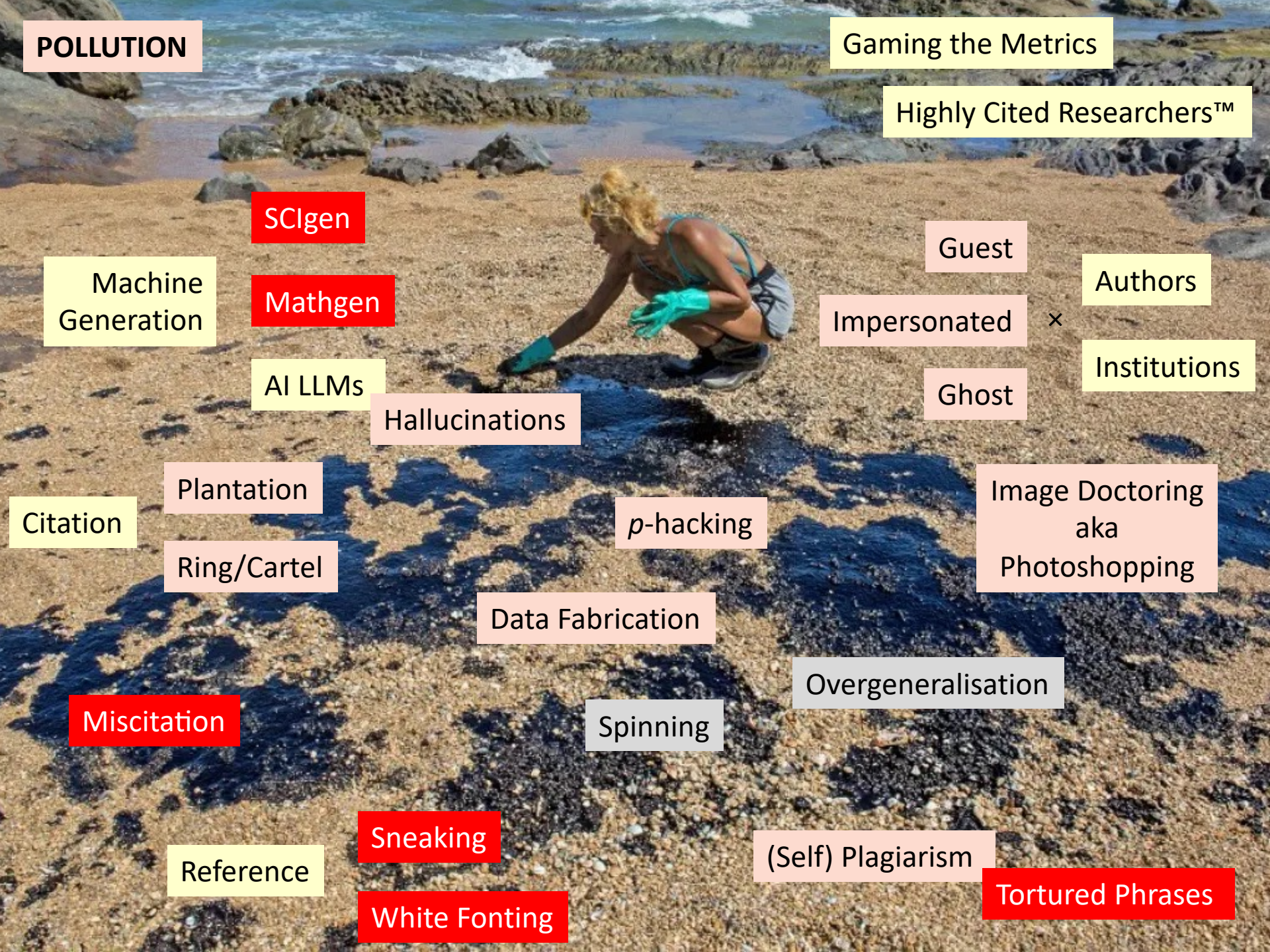
Reference

Sneaking

(Self) Plagiarism

White Fonting

Tortured Phrases



# POST PUBLICATION PEER REVIEW

Organised Scepticism

Digital Hygiene

Replication Crisis

Correction/Erratum

'Honest' Error

Retraction

Falsification

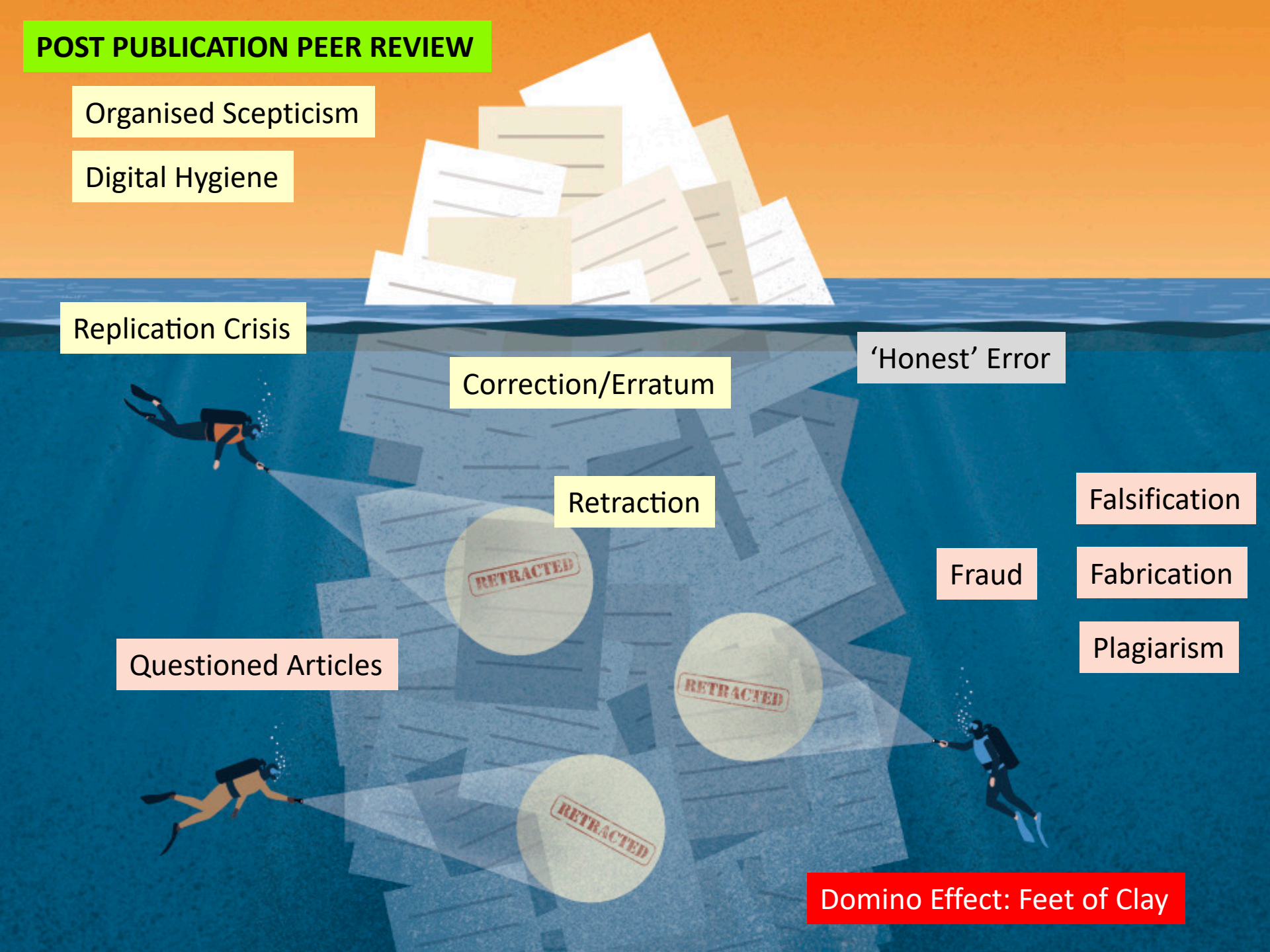
Fraud

Fabrication

Questioned Articles

Plagiarism

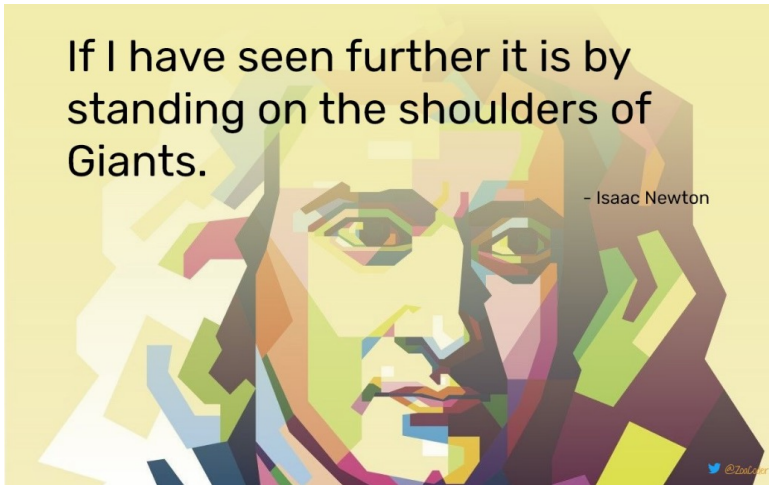
Domino Effect: Feet of Clay



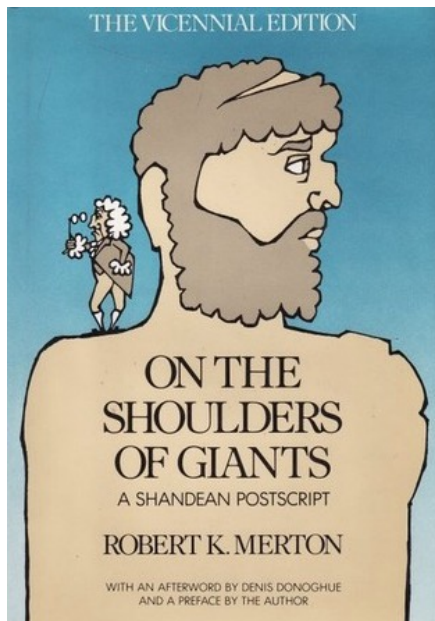
# Science: Knowledge accumulation

If I have seen further it is by standing on the shoulders of Giants.

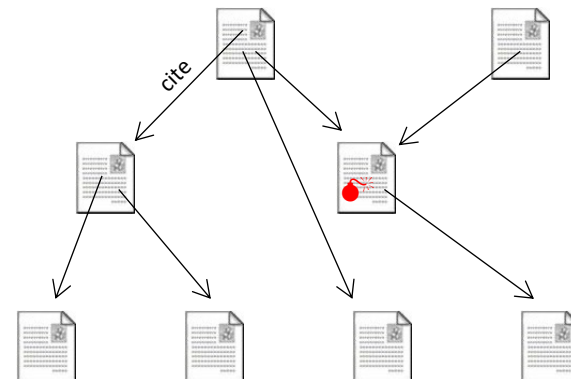
- Isaac Newton



Science contributes to the knowledge wall



1965



Sedimentation as time passes

# Self-correction process

One flawed paper = weakened edifice



*American Economic Review: Papers & Proceedings 100 (May 2010): 573–578*

## Growth in a Time of Debt

By CARMEN M. REINHART AND KENNETH S. ROGOFF

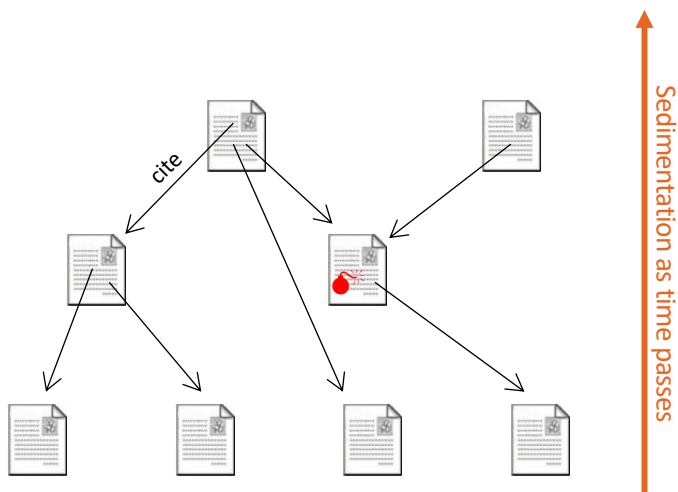


⇒ austerity measures

May 5, 2013

**Errata:**

“Growth in A Time of Debt”  
Carmen M. Reinhart and Kenneth S. Rogoff  
*Harvard University*



corrigenda, errata, and retractions

# The ethos of Science

## A NOTE ON SCIENCE AND DEMOCRACY

by ROBERT K. MERTON



Peer review

## Four Norms of Science

### 1. COMMUNALISM

→ All scientists should have common ownership of scientific goods (intellectual property), to promote collective collaboration; SECRECY is the OPPOSITE of this norm! *scientists should SHARE!*

### 2. UNIVERSALISM

→ Scientific validity is independent of the socio-political status or personal attributes of its participants. *"The intensity of a conviction that a hypothesis is true has no bearing over whether it is true or not." - Sir Peter Medawar*

### 3. DISINTERESTEDNESS (a mouthful!)

→ Scientific institutions act for the benefit of a common scientific enterprise, rather than for the personal gain of individuals within them. *This is why a LOT of people are freaked out by pharmaceutical companies, for example.*

### 4. ORGANIZED SKEPTICISM (Yow!)

→ Scientific claims should be exposed to critical scrutiny before being accepted, both in methodology and institutional codes of conduct. *All scientific claims are pending, awaiting the critical scrutiny of other scientists.*

Robert K. Merton

(7/4/1910 - 2/13/1983)

American Sociologist

Awarded the National Medal of Science!





# The (battle) field

## La spécificité du champ scientifique et les conditions sociales du progrès de la raison

PIERRE BOURDIEU

*Sociologie et sociétés*

71 (1975): 91–118.



Dire que le **champ est un lieu de luttes**, ce n'est pas seulement rompre avec l'image irénique de la « communauté scientifique » telle que la décrit l'hagiographie scientifique — et souvent, après elle, la sociologie de la science —, c'est-à-dire

La sociologie de la science repose sur le postulat que la vérité du produit, — s'agirait-il de ce produit très particulier qu'est la vérité scientifique —, réside dans une espèce particulière de **conditions sociales de production**; c'est-à-dire, plus précisément, dans un état déterminé de la structure et du fonctionnement du champ scientifique. L'univers « pur » de la science la plus « pure » est un champ social comme un autre, avec ses **rapports de forces et ses monopoles**, ses luttes et ses stratégies, ses intérêts et ses profits, mais où tous ces *invariants* revêtent des formes spécifiques.

knowledge in his field ». **Les honneurs de grand prestige, « awards, prizes, grants, lecture-ships, professorships, etc. », sont les signes de reconnaissance réservés aux « great men »** (B. G. Glaser, « Comparative Failure in Science », *Science*, mars 6, 1964, vol. 143, n° 3610, pp. 1012-1014).

Du fait que toutes les pratiques sont orientées vers l'**acquisition de l'autorité scientifique** (prestige, reconnaissance, célébrité, etc.), enjeu intrinsèquement *double*, ce que l'on appelle communément « l'intérêt » pour une activité scientifique (une discipline, un secteur de cette discipline, une méthode, etc.) est toujours à double face ; et de même les stratégies qui tendent à assurer la satisfaction de cet intérêt.

philosophie spontanée de la science qui trouve son expression dans la tradition positiviste, forme de **l'optimisme libéral** qui veut que la science progresse par la **force intrinsèque de l'idée vraie** et que les « puissants » soient aussi par définition **les plus « compétents »**<sup>57</sup> : il suffit de penser à des états anciens du champ des

La **reconnaissance socialement marquée** et garantie (par tout un ensemble de **signes spécifiques de consécration**)<sup>12</sup> que le groupe des pairs-concurrents accorde à chacun de ses membres est fonction de la *valeur distinctive* de ses produits et de l'*originalité* collectivement reconnue (au sens de la théorie de l'information) de la contribution qu'il apporte aux ressources scientifiques déjà accumulées. Le fait que

# Massification and globalization

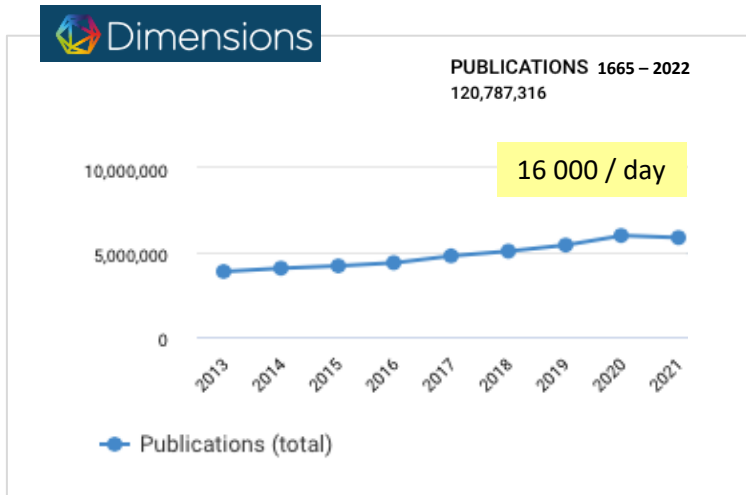
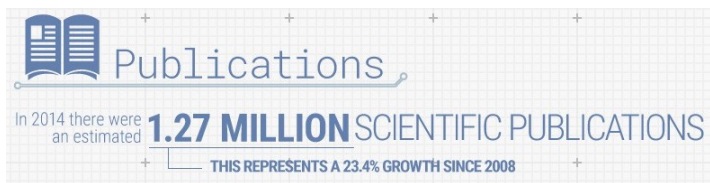
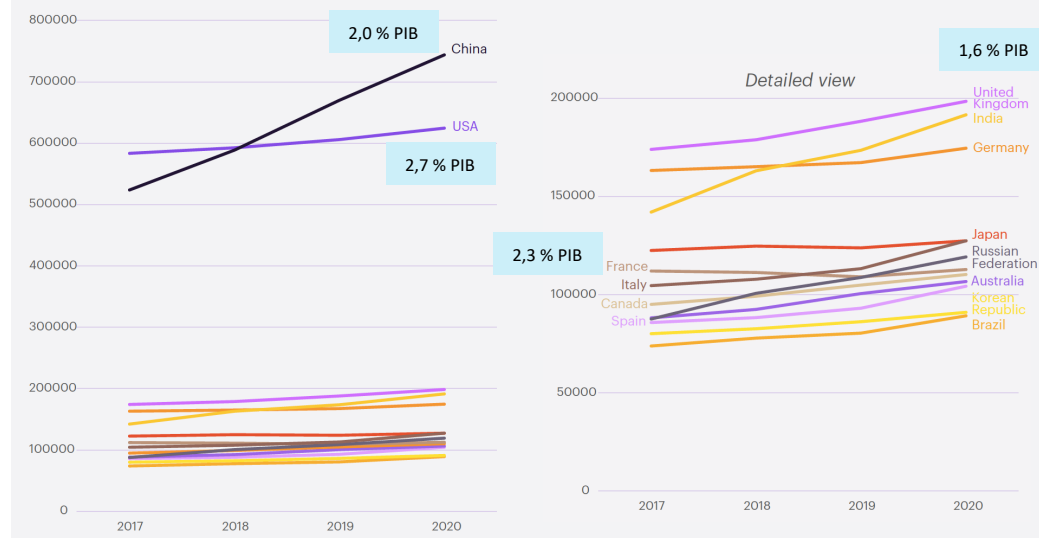


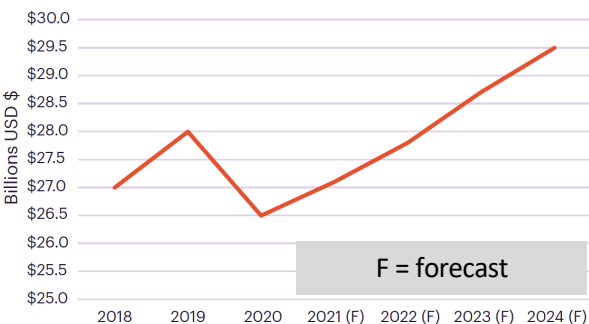
Fig.17 Growth in articles\* by authors affiliated with national research institutions, 2017 to 2020 (Source: SCImago Journal and Country Rank, 2021)



STM Global Brief 2021

# An oligopolistic and lucrative business

Total STM Market Value (Source: Outsell, Inc. 2021)



STM Global Brief 2021

Fig.13

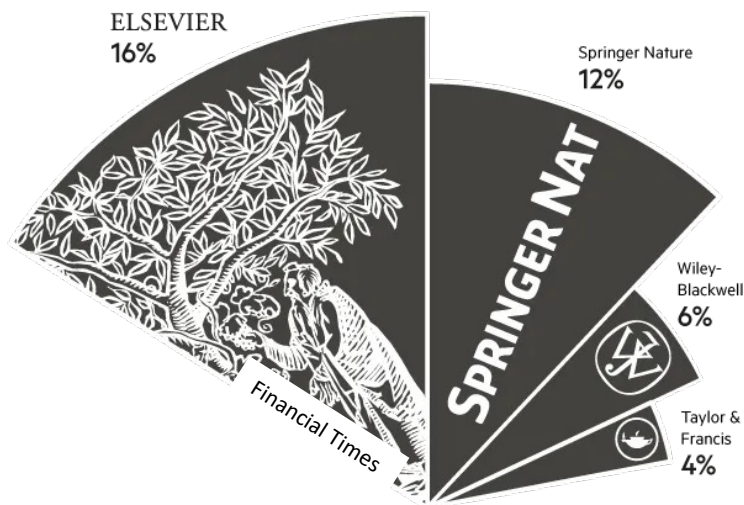
Growth in Number of Journals 2000-2020  
(Source: Ulrich's Web, 2021)



STM Global Brief 2021

## Elsevier top of the league

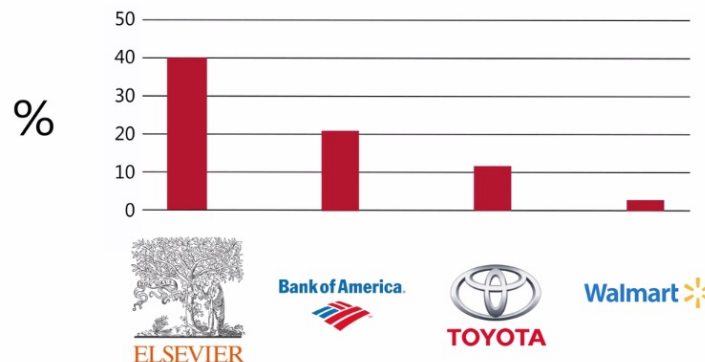
Global market share of journal articles by leading publishers, 2013 (%)



Source: company

## Movie "Paywall: the Business of Scholarship"

### CORPORATE PROFIT MARGINS



## Predatory journals



### The definition

The consensus definition reached was: “Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices.”

210 | Nature | Vol 576 | 12 December 2019

NATURE | VOL 534 | 16 JUNE 2016

### Ban predators from the scientific record

Predatory journals are threatening the credibility of science. By faking or neglecting peer review, they pollute the scholarly record with fringe or junk science and activist research. I suggest that every publishing stakeholder could contribute to reining in these journals.

...

**Jeffrey Beall** *Auraria Library,  
University of Colorado Denver,  
USA.*  
[jeffrey.beall@ucdenver.edu](mailto:jeffrey.beall@ucdenver.edu)

Nature | Vol 598 | 28 October 2021

## Predatory publishers' latest scam: bootlegged and rebranded papers

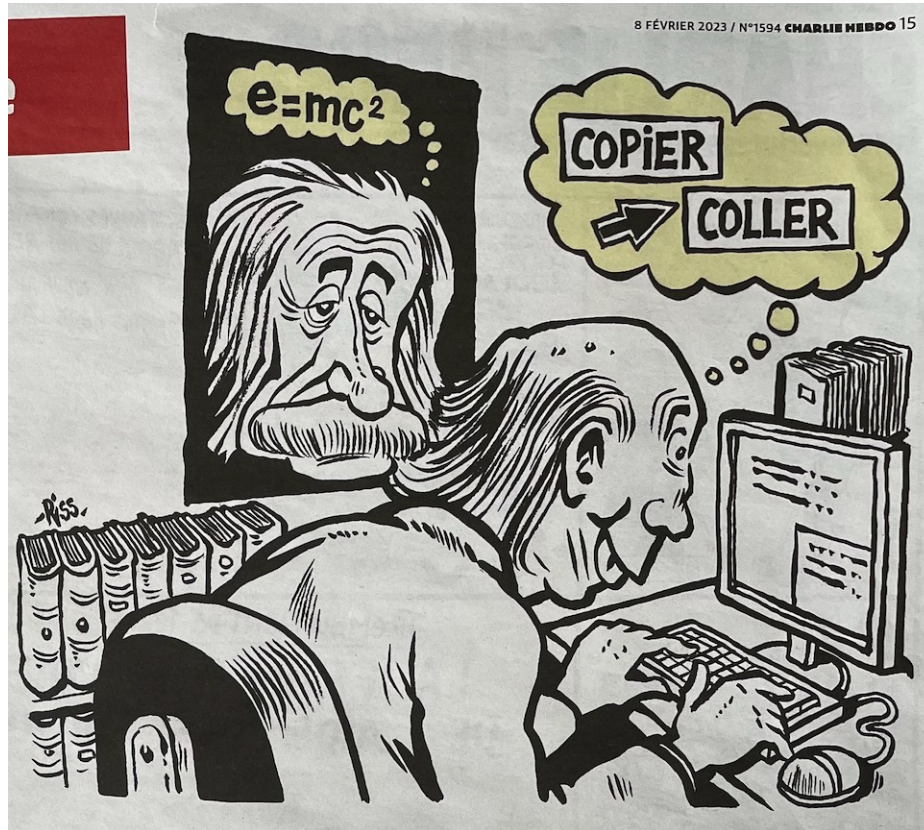
Kyle Siler, Philippe Vincent-Lamarre, Cassidy R. Sugimoto & Vincent Larivière



# Breaches of research integrity

A panorama of recent cases of misconduct...

... it doesn't just happen to other people/labs...



Focus on actionable preventive measures

# 1. Impersonation



<https://retractionwatch.com>

## French ocean institute goes public about authors who forged their researchers' names

The National Institute for Ocean Science (Ifremer) in France has flagged 11 papers on PubPeer for concerns including faked au-



thorship and plagiarism, and has blasted the journals involved for their failure to adequately address the unethical work.

In some cases, for example the *International Journal of Innovative Computing, Information and Control*, editors have removed the names of the forged authors without informing readers.

A name that appears on nine of the articles is Bertrand Chapron, a researcher at Ifremer. **Chapron had nothing to do with the articles** – a fact his institution has been pointing out to the journals involved, without satisfaction, while noting that two of his putative co-authors have highly suspect affiliations.

### Prevention:

- Monitor via Google Scholar alerts
- Regularly search for one's identity with query: "name surname"

## 2. In extenso plagiarism of an article

Taylor & Francis Online

Home ▶ All Journals ▶ Korean Journal of Biological Sciences ▶ List of Issues ▶ Volume 4, Issue 3 ▶ Effects of microgravity and hypergravity ....

Korean Journal of Biological Sciences  
Volume 4, 2000 - Issue 3

Journal homepage

383 Views  
2 CrossRef citations to date  
6 Altmetric

Original Articles

### Effects of microgravity and hypergravity on aging and longevity of insects

Hak Ryul Kim  
Pages 231-237 | Received 24 Jun 2000, Accepted 22 Jul 2000, Published online: 22 Nov 2010  
Download citation | <https://doi.org/10.1080/12265071.2000.9647549>

References Citations Metrics Licensing Reprints & Permissions PDF

Sample our Bioscience Journals  
>> Sign in here to start your access to the latest two volumes for 14 days

The effects of microgravity and hypergravity on aging are still poorly documented, particularly in mammals. However, there is a growing interest for the use of the fruit fly, *Drosophila melanogaster*, and this species may be now considered as a model organism in gravitational biology studies dealing with aging.

Q Key words: [Aging](#) [Drosophila melanogaster](#) [Hypergravity](#) [Insect](#) [Longevity](#) [Microgravity](#)

Related research

People also read Recommended articles

The role of cellular senescence in ... through the prism of Koch-like c...

Hagai Yanai et al.  
Ageing Research Reviews  
01 Oct 2017

Guillaume Cabanac (@gcabanac@sciences.re) @gcabanac

“a complete plagiarism”: a T&F 2000 paper plagiarised a 1999 paper by a @CNRS researcher @CbiToulouse @UT3PaulSabatier. Twenty years later, the copy-paste ‘article’ is still online, cited, unretracted, no caveat displayed 🤔. High time to act @tandfonline! [pubpeer.com/publications/9...](https://pubpeer.com/publications/95A46C763AC2D8A440515DDACC1C29)

Complete plagiarism of (Le Bourg, 1999), an article authored by a researcher of Université Toulouse 3. Retracted in 2022 (only)!

Prevention :

- Analyse Google Scholar alerts
- Report plagiarism to editors and publishers

#1 Guillaume Cabanac commented June 2022

Because it was found to plagiarise (Le Bourg, 1999), this paper was discussed in:

Butler, D. (2008). Entire-paper plagiarism caught by software. In *Nature* (Vol. 455, Issue 7214, pp. 715–715). Springer Science and Business Media LLC.  
<https://doi.org/10.1038/455715a>

It has been retracted by the editors of *Animal Cells and Systems* who report on their investigation in:

Rhee, M., Chung, C. H., & Nam, S. H. (2009). Response to the publisher’s note. In *Experimental Gerontology* (Vol. 44, Issue 4, pp. 305–305). Elsevier BV.  
<https://doi.org/10.1016/j.exger.2009.01.001>

<https://pubpeer.com/publications/95A46C763AC2D8A440515DDACC1C29>

# 3a. Massive plagiarism

Accepted as Oral presentation in CVPR 2022: A disguised criticism of peer review

| Title  | Acronym | Source   | Rank |
|--|---------|----------|------|
| IEEE Conference on Computer Vision and Pattern Recognition | CVPR    | CORE2021 | A*   |

The CVPR paper is the Open Access version, provided by the Copyright Clearance Center (CCC) and is available for free reproduction and distribution in any form, provided the original source is properly cited.

### EZV-SIDE: From Asynchronous Events to Fast and Continuous Video Reconstruction via Neural Stochastic Differential Equations

Jingpan Kan<sup>1</sup>, Donglai Luo<sup>2</sup>, Bingyang Yu<sup>3</sup>, Xiangyu Ke<sup>4</sup>, Yongdong Zhang<sup>1</sup>  
<sup>1</sup> Tsinghua University, <sup>2</sup> Beijing University of Aeronautics and Astronautics, <sup>3</sup> Beijing University of Posts and Telecommunications, <sup>4</sup> Institute of Automation, Chinese Academy of Sciences

**Abstract**  
Event cameras are highly sensitive to brightness changes in the scene and asynchronous in time. This paper proposes a novel event reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras. The proposed method consists of two main components: (1) a novel event reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras. (2) a novel video reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras. The proposed method consists of two main components: (1) a novel event reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras. (2) a novel video reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras.

of continuous video, which can be informative about latent representations [1].

An approach which better models reality is to construct a continuous-time model with a latent state defined at all times [1]. The problem here is that the continuous-time model is not tractable for inference. However, the continuous-time model can be approximated by a discrete-time model, which can be used for inference. This is the idea of the proposed method, EZV-SIDE, which can reconstruct high-resolution video from event cameras.

The proposed method consists of two main components: (1) a novel event reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras. (2) a novel video reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras.

5. Experiments and Results

5.1. Experimental Setup

Training Data: We used the standard dataset for high-speed video reconstruction, which contains 1000 frames of 1080p video. The training data is divided into two parts: 800 frames for training and 200 frames for testing.

5.2. Results

We compare our proposed method with the state-of-the-art methods: [1], [2], [3], [4], [5], [6], [7], [8], [9], [10], [11], [12], [13], [14], [15], [16], [17], [18], [19], [20], [21], [22], [23], [24], [25], [26], [27], [28], [29], [30], [31], [32], [33], [34], [35], [36], [37], [38], [39], [40], [41], [42], [43], [44], [45], [46], [47], [48], [49], [50], [51], [52], [53], [54], [55], [56], [57], [58], [59], [60], [61], [62], [63], [64], [65], [66], [67], [68], [69], [70], [71], [72], [73], [74], [75], [76], [77], [78], [79], [80], [81], [82], [83], [84], [85], [86], [87], [88], [89], [90], [91], [92], [93], [94], [95], [96], [97], [98], [99], [100].

Table 1: Quantitative comparison of baseline methods on the event reconstruction task. The table shows the PSNR, SSIM, and LPIPS values for different methods across different video sequences.

| Method | PSNR | SSIM | LPIPS |
|--------|------|------|-------|
| [1]    | 0.87 | 0.75 | 0.18  |
| [2]    | 0.89 | 0.78 | 0.17  |
| [3]    | 0.91 | 0.80 | 0.16  |
| [4]    | 0.93 | 0.82 | 0.15  |
| [5]    | 0.95 | 0.84 | 0.14  |
| [6]    | 0.97 | 0.86 | 0.13  |
| [7]    | 0.99 | 0.88 | 0.12  |
| [8]    | 1.01 | 0.90 | 0.11  |
| [9]    | 1.03 | 0.92 | 0.10  |
| [10]   | 1.05 | 0.94 | 0.09  |

### 3. Preliminaries

#### 3.1. Stochastic Differential Equations

SDEs are defined as stochastic analogues of ordinary differential equations in the sense that  $dX_t = \mu(X_t, t)dt + \sigma(X_t, t)dW_t$ , where  $\mu$  and  $\sigma$  are drift and diffusion coefficients, respectively. The solution of the SDE is given by the Itô process  $X_t$ .

The proposed method consists of two main components: (1) a novel event reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras. (2) a novel video reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras.

The diagram illustrates the EZV-SIDE architecture, showing the flow of information from input events to the reconstructed video output. The process involves a series of neural network layers and stochastic differential equations.

The proposed method consists of two main components: (1) a novel event reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras. (2) a novel video reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras.

Table 2: Average quantitative results for different methods. The table shows the PSNR, SSIM, and LPIPS values for different methods across different video sequences.

| Method | PSNR | SSIM | LPIPS |
|--------|------|------|-------|
| [1]    | 0.87 | 0.75 | 0.18  |
| [2]    | 0.89 | 0.78 | 0.17  |
| [3]    | 0.91 | 0.80 | 0.16  |
| [4]    | 0.93 | 0.82 | 0.15  |
| [5]    | 0.95 | 0.84 | 0.14  |
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| [7]    | 0.99 | 0.88 | 0.12  |
| [8]    | 1.01 | 0.90 | 0.11  |
| [9]    | 1.03 | 0.92 | 0.10  |
| [10]   | 1.05 | 0.94 | 0.09  |

Figure 1: Qualitative results of the proposed method. The figure shows a sequence of frames from a video, with the proposed method's reconstruction overlaid on the original frames. The reconstruction is highly accurate and matches the original frames well.

The proposed method consists of two main components: (1) a novel event reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras. (2) a novel video reconstruction method, EZV-SIDE, which can reconstruct high-resolution video from event cameras.



# 3b. Plagiarism of articles

## Visualise copy-paste: [SimTexter](#) and [Text Compare](#)

**similarity texter**  
A TEXT-COMPARISON TOOL

**my article**

**suspected plagiarism**

**OUTPUT**

TEXT: Plain text input

**Salivary Diagnostics for Managing Cellular Oxidative Stress**  
**W. Jean Dodds\***  
Hemetpet, 938 Stanford Street, Santa Monica, California, USA  
DOI: 10.26717/BJSTR.2019.18.003095

In people and animals, cells are in homeostatic equilibrium when they are in oxidative balance, namely, when the cellular antioxidants (reducing agents) are balanced with the oxidants (oxidizing agents). However, when oxidant levels exceed antioxidants (termed cell redox), cells undergo oxidative stress (OS), which is the basic mechanism of all sickness and chronic disease [1-7]. Extensive investigations of OS and chronic tissue inflammatory responses have established the major underlying risk factors that play key roles in the etiology of a range of human (and animal) diseases that include rheumatoid arthritis, cancers, diabetes, obesity, neurodegenerative disorders, cardiovascular diseases, and other chronic diseases. The expression of these diseases is influenced by a range of environmental, dietary, and lifestyle factors, and specific dietary components, along with exercise and a variety of nutraceuticals can reduce these risk factors significantly [4,6-7].

Chronic inflammation from the increased free radical formation of OS, also called reactive oxygen species (ROS), occurs when tissues or organs receive inflammatory "mediator" messages that cause them to react as though the "trigger" or pathogen is still present. Rather than repairing themselves, these cells remain in an ongoing state of inflammation that can wax and wane life-long.

Tissues thus become deficient in antioxidant mediators, such as malondialdehyde, glutathione, cysteine, ascorbic acid and other antioxidant vitamins, which is associated with a poor clinical outcome [6-7]. In healthy states, 25% of oxygen intake forms ROS, whereas this increases to 75% in unhealthy states and in aging [4]. When cells undergo damage, they release biomarker enzymes that lead to tissue inflammation, infections, obesity and even cancers. Biomarkers of clinical relevance in people and pets include isoprostane, Nrf2, microRNA, and others [6,7]. When elevated, the presence of high levels of these biomarkers can be addressed with diet and supplement changes to promote beneficial anti-oxidant effects [4,6,7] (cellbiomarkers.org). These assays are repeated periodically to assess the response and adjust nutritional and nutraceutical therapy, as needed.

Management of OS has focused on the development of functional foods, e.g. those containing natural Nrf-2 activators. These include such antioxidant ingredients as: turmeric (*Curcuma longa*), and its relative, ginger (*Zingiber officiale*); chili peppers (*Capsicum annuum*); green tea (*Camellia sinensis*, which contains tannins and polyphenol catechins, and other teas); soybeans (*Glycine max*); tomatoes (*Solanum lycopersicum*, rich in lycopene); grapes (not for pets); honey (not for infants or very young animals); cranberries (*Vaccinium macrocarpon*, contains pro-antihydroxyindols); licorice (*Glycyrrhiza glabra*); garlic (*Allium sativum*, in moderation for pets); milk thistle (*Silybum marianum*); cabbages and broccoli (*Brassica oleracea var. capitata* and *var. italica*) [4,6,7].

**Some Primary Oxidative Stress BioMarkers [6,7]**

Isoprostanes: are a series of prostaglandin-like compounds produced by peroxidation of arachidonic acid. This process is catalyzed by ROS, and they are considered the "gold standard" test for quantifying lipid peroxidation/OS in vivo in humans and animals.

MicroRNAs: MicroRNAs are small non-coding RNA molecules found mostly in the cells of plants, animals and some viruses. They function in RNA silencing and post-transcriptional regulation of gene expression. The function of microRNAs is in gene regulation.

Glutathione-S-Transferases (GST): previously called ligandins, belong to a superfamily of metabolic isozymes best known for their ability to catalyze conjugation of the reduced form of glutathione (GSH) to foreign substrates for the purpose of detoxification. They are found in plants, animals, fungi, and some bacteria. GSH prevents damage to cells by ROS, peroxides, and heavy metals, and plays an important role in cell signaling. Cytosolic GST is expressed primarily in heart, lung, and brain tissues; whereas, GSTs in general function primarily in the liver. High levels of GST are associated with resistance to the apoptosis (cell death) induced by a range of substances, including chemotherapeutic agents. GST levels in urine and serum are indicators of hepatocyte and renal tubular injury in transplantation, toxicity and viral infections of humans and rodents.

Malondialdehyde: A reactive aldehyde, occurs naturally as a biomarker for OS and is formed when ROS degrade polyunsaturated lipids. Malondialdehyde is potentially mutagenic, and has been found in heated edible oils such as sunflower and palm oils. Corneas of human patients suffering from keratoconus and bullous keratopathy have increased levels of malondialdehyde, and this aldehyde also can be found in tissue sections of joints from human patients with osteoarthritis.

Tumor Necrosis Factor-Alpha (TNF- $\alpha$ ): also called cachexin or cachectin, is a cell signaling protein involved in systemic inflammation and is one of the cytokines that make up the acute phase inflammatory response. It is produced chiefly by activated macrophages, although it can be produced by many other cell types such as CD4+ lymphocytes, natural killer (NK) cells, neutrophils, mast cells, eosinophils, and even neurons.

TNF is an endogenous pyrogen that can induce fever, apoptotic cell death, cachexia, inflammation, inhibit tumorigenesis and viral replication, and respond to sepsis via interleukin IL-1 and IL-6 producing cells. Dysregulation of TNF production has been implicated in a variety of human diseases such as Alzheimer's disease, cancer, depression, psoriasis and inflammatory bowel disease (IBD).

Other Biomarker Enzymes include: Sorbitol Dehydrogenase, a cytosolic enzyme that converts sorbitol, the sugar alcohol form of glucose, into fructose; and 5' Nucleotidase, which catalyzes the phosphorolytic cleavage of 5' nucleotides, and is considered a maturation marker for T- and B-cells.

**Measuring Biomarker Enzymes of Oxidative Stress [1,4,6,7] Cellbiomarkers.org]**

Traditionally, cellular biomarkers are measured in the serum and urine from humans and animals. However, collecting these samples especially from smaller animal species often presents with difficulty and causes unnecessary stress [8-10]. Saliva collection, by contrast, is noninvasive, painless, relatively inexpensive and convenient for the individual [11]. More recently, therefore, diagnostic techniques have focused on collecting saliva and feces instead [8, 10-12]. Like

Food sensitivity testing, salivary testing can reveal the latent or pre-clinical form of developing OS [11] (cellbiomarkers.org). The levels of salivary biolipids, like isoprostane, also are predicted to reflect the general mucosal immune response and can be induced in people and animals without parallel antibodies being detected in serum [6,7,10].

TEXT: Plain text input

**BIOMARKERS OF OXIDATIVE STRESS IN DOGS**  
**W. Jean Dodds**  
Medical Research Archives vol 6 issue 5. Medical Research Archives  
Hemetpet, 938 Stanford Street, Santa Monica, CA 90403, USA

Introduction:

In people and animals, cells are in homeostatic equilibrium when they are in oxidative balance, namely, when the cellular antioxidants (reducing agents) are balanced with the oxidants (oxidizing agents) [1-6]. However, when oxidant levels exceed antioxidants (termed cell redox), cells undergo oxidative stress (OS), which is the basic mechanism of all sickness and chronic disease [1-7].

Extensive investigations of OS and chronic tissue inflammatory responses have established the major underlying risk factors that play key roles in the etiology of a range of human (and animal) diseases that include rheumatoid arthritis, cancers, diabetes, obesity, neurodegenerative disorders, cardiovascular diseases, acute and chronic kidney injury and disease, and other chronic diseases [1,6,7,9]. The expression of these diseases is influenced by a range of environmental, dietary, and lifestyle factors, and specific dietary components, along with exercise and a variety of nutraceuticals, can reduce these risk factors significantly [8-10].

Chronic inflammation from the increased free radical formation of OS, also called reactive oxygen species (ROS), occurs when tissues or organs receive inflammatory "mediator" messages that cause them to react as though the "trigger" or pathogen is still present [6, 11]. In healthy states, 25% of oxygen intake forms ROS, whereas this increases to 75% in unhealthy states and in aging.

Rather than repairing themselves, cells producing ROS remain in an ongoing state of inflammation that can wax and wane life-long. Tissues thus become deficient in antioxidant mediators, such as malondialdehyde, glutathione, cysteine, ascorbic acid and other antioxidant vitamins, which is associated with a poor clinical outcome. However, free radicals themselves are so reactive and short-lived that direct measurement of ROS is not possible [1,7,11].

When cells undergo damage, they release biomarker enzymes that lead to tissue inflammation, infections, obesity and even cancers [6, 8]. For example, biomarker levels in canine patients with multicentric lymphoma, oral fibrosarcoma, mast cell tumor, malignant melanoma, appendicular osteosarcoma, nasal tumors and peripheral amelanostoma have been studied [12,13]. Each group consisted of 6 patients; antioxidant biomarkers were measured in serum and whole blood, and were compared to those of 31 healthy dogs. The increase of

antioxidant enzyme activities in the cancer group demonstrated the activation of the body's antioxidant defense mechanisms in different canine cancers [13]. Importantly, the presence of high levels of these biomarkers has been successfully addressed with diet and supplement changes that promote beneficial effects of added antioxidants [5,10]. These assays then are repeated periodically to assess the response and adjust nutritional and nutraceutical therapy, as needed [8].

Management of OS has recently focused on the development of functional foods, e.g. those containing natural Nrf-2 activators [8,10]. These include such antioxidant ingredients as: turmeric (*Curcuma longa*), and its relative, ginger (*Zingiber officiale*); chili peppers (*Capsicum annuum*); green tea (*Camellia sinensis*, which contains tannins and polyphenol catechins, and other teas); soybeans (*Glycine max*); tomatoes (*Solanum lycopersicum*, rich in lycopene); grapes (not for infants or very young animals); cranberries (*Vaccinium macrocarpon*, contains pro-antihydroxyindols); licorice (*Glycyrrhiza glabra*); celery, thyme, and parsley; garlic (*Allium sativum*, in moderation for pets); milk thistle (*Silybum marianum*); cabbages and broccoli.

**Some Primary Oxidative Stress Biomarkers**

Isoprostanes: are a series of prostaglandin-like compounds produced by peroxidation of arachidonic acid. This process is catalyzed by ROS, and they are considered the "gold standard" test for quantifying lipid peroxidation/OS in vivo in humans and animals. Isoprostane levels serve as a reliable surrogate biomarker for the presence of ROS [14-20].

MicroRNAs are small non-coding RNA molecules found mostly in the cells of plants, animals and some viruses. They function in RNA silencing and post-transcriptional regulation of gene expression. The function of microRNAs is in gene regulation [21,22].

Glutathione-S-Transferases (GST), previously called ligandins, belong to a superfamily of metabolic isozymes best known for their ability to catalyze conjugation of the reduced form of glutathione (GSH) to foreign substrates for the purpose of detoxification. They are found in plants, animals, fungi, and some bacteria. GSH prevents damage to cells by ROS, peroxides, lipid peroxides, and heavy metals, and plays an important role in cell signaling. Cytosolic GST is expressed primarily in heart, lung, and brain tissues; whereas, GSTs in general function primarily in the liver. High levels of GST are associated with resistance to the apoptosis (cell death) induced by a range of substances, including chemotherapeutic agents. GST levels in urine and serum are indicators of hepatocyte and renal tubular injury in transplantation, toxicity and viral infections of humans and rodents [4,6,9].

Malondialdehyde, a reactive aldehyde, occurs naturally as a biomarker for lipid peroxidation and OS, and is formed when ROS degrade polyunsaturated lipids. Malondialdehyde is potentially mutagenic, and has been found in heated edible oils such as sunflower and palm oils. Corneas of human patients suffering from keratoconus and bullous keratopathy have increased levels of malondialdehyde, and this aldehyde also can be found in tissue sections of joints from human patients with osteoarthritis [22,24]. Levels in healthy canines are reported to be 1.00-1.77  $\mu$ M in serum [12].

Tumor Necrosis Factor-Alpha (TNF- $\alpha$ ): also called cachexin or cachectin, is a cell signaling protein involved in systemic inflammation and is one of the cytokines that make up the acute phase inflammatory response. It is produced chiefly by activated macrophages, although it can be produced by many other cell types such as CD4+ lymphocytes, natural killer (NK) cells, neutrophils, mast cells, eosinophils, and even neurons. TNF is an endogenous pyrogen that can induce fever, apoptotic cell death, cachexia, inflammation, inhibit tumorigenesis and viral replication, and respond to sepsis via interleukin IL-1 and IL-6 producing cells. Dysregulation of TNF production has been implicated in a variety of human diseases such as Alzheimer's disease, cancer, depression, psoriasis and inflammatory bowel disease (IBD) [1, 22,25]. Levels of TNF- $\alpha$  in the serum of normal canines have been reported to range from 0-4  $\mu$ g/mL [8].

Nuclear factor erythroid 2-related factor 2 (Nrf2), a protein that regulates the expression of antioxidant proteins that protect against oxidative damage triggered by injury and inflammation. While Nrf2 activation can be evaluated using complex protocols in a research setting by using GSH as a surrogate biomarker, Nrf2 is not a suitable clinical biomarker; as clinical samples must be stored and analyzed under conditions to avoid denaturation. The complexity and cost of the analysis prohibits widespread application [3,8,11,26,27]. The concentration of GSH in blood samples from normal canines has been reported to be 0.128  $\pm$  0.01 mM [8].

Hydroxyoctadecadienoic acid (HODE) is a stable oxidation product of linoleic acid. Levels are increased when cellular OS increases, such as in diabetes, asthma, cancers, and early atherosclerosis. Gene expression is regulated via macrophages. Importantly, this biomarker can be elevated in the inflammation and OS of periodontal disease [28].

**Other Biomarker Enzymes include:** Sorbitol Dehydrogenase, a cytosolic enzyme that converts sorbitol, the sugar alcohol form of glucose, into fructose; and 5' Nucleotidase, which catalyzes the phosphorolytic cleavage of 5' nucleotides, and is considered a maturation marker for T- and B-cells [22,25,29].

**Measuring Biomarker Enzymes of Oxidative Stress**

Traditionally, cellular biomarkers are measured in the serum and urine from humans and animals [2,8,25,30]. However, collecting these samples especially from smaller animal species presents with difficulty and causes unnecessary stress. Further, our studies showed that neither canine whole blood, serum, nor urine-based isoprostane quantitation was accurate, linear and predictive as a marker for tissue OS in dogs [8,31].

In contrast, collection of saliva is noninvasive, painless, relatively inexpensive and convenient for the individual. It is easily collected, stored and shipped and provides a non-



# 4. Plagiarism of a conference website

Association chaired by Laure VIEU (CNRS-IRIT).

The International Association for Ontology and its Applications

**FOIS 2023 conference**

Formal Ontology in Information Systems Conference for 2023, hosted by IAOA and the GRIIS in Sherbrooke, QC, Canada

General information

13th International Conference on Formal Ontology in Information Systems (FOIS 2023), July 17-20, 2023 (Sherbrooke, QC, Canada) and Sept 18-20, 2023 (Online)

**FOIS 2023 CALL FOR PAPER**

13th International Conference on Formal Ontology in Information Systems (FOIS 2023), July 17-20, 2023 (Sherbrooke, QC, Canada) and Sept 18-20, 2023 (Online) <http://fois2023.griis.ca> For any questions, please email: [fois2023@gmail.com](mailto:fois2023@gmail.com) Definition and scope The FOIS [...]

[Read more »](#)

Detected predatory conference

World Academy of Science, Engineering and Technology

Search Conferences

Conferences Disciplines Committees Publications Support Login Register

210 | Nature | Vol 576 | 12 December 2019

Conferences / Formal Ontology in Information Systems

**International Conference on Formal Ontology in Information Systems**

Formal Ontology in Information Systems Conference aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Formal Ontology in Information Systems Conference. It also provides a premier interdisciplinary platform for researchers, practitioners, and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Formal Ontology in Information Systems Conference.

Upcoming Conferences

October 2023 in Istanbul

February 2024 in Kuala Lumpur

The World Academy of Science, Engineering and Technology or WASET is a predatory publisher of open access academic journals. The publisher has been listed as a "potential, possible, or probable" predatory publisher by American library scientist Jeffrey Beal<sup>[1]</sup> and is listed as such by the Max Planck Society<sup>[2]</sup> and Stop Predatory Journals.<sup>[3]</sup> WASET's estimated annual revenue in 2017 alone was over \$4 million,<sup>[4]</sup> with other estimates ranging from \$8.9 million to \$11.9 million for the years 2014 to 2019 combined.<sup>[6]</sup>

**World Academy of Science, Engineering and Technology**

|                   |  |
|-------------------|--|
| Status            | Active   |
| Founder           | Cemal Ardil                                      |
| Country of origin | Turkey   |
| Distribution      | Worldwide  |
| Publication types | Open access journals                             |
| Nonfiction topics | Science, technology, and medicine                |
| Official website  | <a href="http://www.waset.org">www.waset.org</a> |

**Conferences** [edit]

WASET has been accused of arranging predatory conferences, in order to artificially boost the academic credentials of presenters and paper submitters.<sup>[7][8]</sup> It claims to organize several thousands of scientific conferences a year, using names that are the same or similar to real conferences organized by established scientific groups.<sup>[9][10]</sup> Legitimate conferences have publicly warned of identically named, fake WASET conferences.<sup>[11][12]</sup> In 2015, the University of Toronto released a "scam advisory" about a purported conference on their premises advertised by WASET.<sup>[13][14]</sup> In 2018 WASET advertised 49,844 conferences, many of which share similar names.<sup>[15]</sup> Hundreds of conferences may be scheduled for the same location on the same day.<sup>[16][17]</sup> For example, 116 simultaneous scientific meetings were scheduled in a hotel in Rio de Janeiro in February 2016.<sup>[18][19]</sup>

- Prevention :
- Search for acronym, title, and CFP
  - Check names in the Program Committee

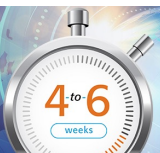
# 5a. Plagiarism with paraphrasing – tortured phrases

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LEARN MORE



## Prevention :

- Reviewer: spot and report ‘tortured phrases’
- Reader: post PubPeer comments

There is developing proof that vitiligo influences the skin as well as be associated with metabolic irregularities, including glucose bigotry and lipid anomalies, all of which affirm the fundamental idea of the ailment [3].

<https://pubpeer.com/publications/48716D07A542F8DD27377198302B06>

Cruel Wavelet Esteem, Cruel Wavelet Vitality  
ents. These highlights, combined with a SVM

<https://pubpeer.com/publications/44F31B252D70BF85BE487B043E371C>

#1 Guillaume Cabanac commented December 2021

This IEEE article cited 87 times according to Dimensions contains several tortured phrases that make some passages hard to parse:

- area of intrigue instead of the established ‘region of interest’
- back spread AND neural instead of the established ‘back propagation’
- fluffy strategy instead of the established ‘fuzzy method’
- mind tumor instead of the established ‘brain tumor’

Can the authors explain why they departed from the established phrases?

In this research, the anatomical structure of the brain slices is considered for the classification. To go with this proposes a procedure for mind Tumor gathering in Medical Resonance Images (MRI). In this paper, CAD (Computer Aided

here. The portrayals of mind MRI data as run of the mill and peculiar are basic to prune the standard patient and to consider the people who have the probability of having irregularities or Tumor. In overseeing human life, the delayed consequences of human examination including false negative cases must be at low rate. The viability of this paper is inspected on MRI mind pictures utilizing order exactness, affectability and specificity.

#2 Parabrotis sulinaris commented December 2021

This paper is likely computer generated

### GPT-2 Output Detector Demo

This is an online demo of the GPT-2 output detector model, based on the [GPT-2 Transformers](#) implementation of RoBERTa. Enter some text in the text box, the predicted probabilities will be displayed below. The results start to get reliable after around 50 tokens.

Now-a-days image processing placed an important role for recognizing various diseases such as breast, lung, and brain tumors in earlier stage for giving the appropriate treatment. Presently, most cancer diagnosis worked according to the visual examination process with effectively. Human visual reviewing of infinitesimal biopsy pictures is exceptionally tedious, subjective, and conflicting due to between and intra-onlooker varieties. In this manner, the malignancy and it's compose will be distinguished in a beginning time for finish treatment and fix. This brain tumor classification system using machine learning-based back propagation neural networks (MLBPNN) causes pathologists to enhance the exactness and proficiency in location of threat and to limit the entomb onlooker variety. Moreover, the technique may assist doctors with analyzing the picture cell by utilizing order and bunching calculations by recoloring qualities of the phones. The different picture preparing steps required for disease location from biopsy pictures incorporate procurement, upgrade, and division; include extraction, picture portrayal, characterization, and basic leadership. In this paper, MLBPNN is analyzed with the help of infra-red sensor imaging technology. Then, the computational multifaceted

Real 18.87% Prediction based on 337 tokens Fake 81.13%



PUBPEER  
The online Journal club

El-Melegy *et al.* [6] proposes another fluffy strategy for programmed division procedure of obsessive and typical cerebrum utilizing MRI volumetric datasets. This introduced fluffy technique reformulates the outstanding fuzzy c-means (FCM) strategy is to consider any accessible data of the class focus and moreover think about the data's vulnerability. This data is utilized to regularize the bunches pro-

### III. MATERIALS AND METHODS

#### A. FEATURE EXTRACTION USING GRAY LEVEL COVARIANCE MATRIX (GLCM) AND PRINCIPAL COMPONENT ANALYSIS (PCA)

The Gray Level Co-covariance Matrix (GLCM) frameworks are utilized to assess the surface highlights of the areas of intrigue. Twenty textural features like autocorrelation, inter-contrast, separate, relationship, entropy and homogeneity were segregated from the specific MRI cerebrum pictures and isolated utilizing the surface normal of four headings and separation. Then the extracted features are listed as follows. Contrast is important feature that examining the area between darkest and brightest pixels in the MRI image which is computed as follows.

$$\text{contrast} = \sum_{i,j=0}^{n-1} P_{ij} (i-j)^2 \quad (1)$$

$$\text{Dissimilarity} = \sum_{i,j=0}^{n-1} |i-j| P(i,j) \quad (2)$$

down into an ideal arrangement. These problems can be solved by machine learning based back Propagation Neural Network (MLBPNN). MLBPNN have indicated vital learning change over single neural systems (NN). Therefore, the utilization of MLBPNN for design acknowledgment is all around advocated utilizing infra-red imaging sensor and the warm information will be conveyed through Wireless Infrared Imaging Sensor.

#### B. MLBPNN FOR SEGMENTATION AND CLASSIFICATION USING INFRA RED SENSOR INTEGRATED VIA WSN

Typically location happens in cutting edge stages when the nearness of the tumor has caused unexplained indications. In this framework a compelling strategy for identification and division of mind tumor utilizing multi fractal measurement procedure [15] is introduced. In the existing system only segmentation has been made to the input image and the tumor is located with its associated intensity levels and textures. [16]

enhance the tumor classification process as follows,

$$B_T(x) = \sum_{t=1}^T w_t(x) \quad (9)$$

In eqn (9),  $B_T(x)$  is denoted as boosted classifier for weak features and  $w_t(x)$  is represented as weak classifier. Anyway there are issues in Back spread (BP) can defeat with the assistance of MLBPNN which is examined beneath.

How come these incorrect wordings survived proofreading by the coauthors, editors, referees, copy editors, and typesetters?

Found with the [Problematic Paper Screener](#).

<https://pubpeer.com/publications/C523809F0A5C5435E455D226F3E421>

# 5b. Plagiarism with paraphrasing – *tortured phrases*

## Problematic Paper Screener

<https://www.irit.fr/~Guillaume.Cabanac/problematic-paper-screener>

3/10,000 problematic articles published in 2021:

- 68% affiliated to India
- 9% affiliated to China

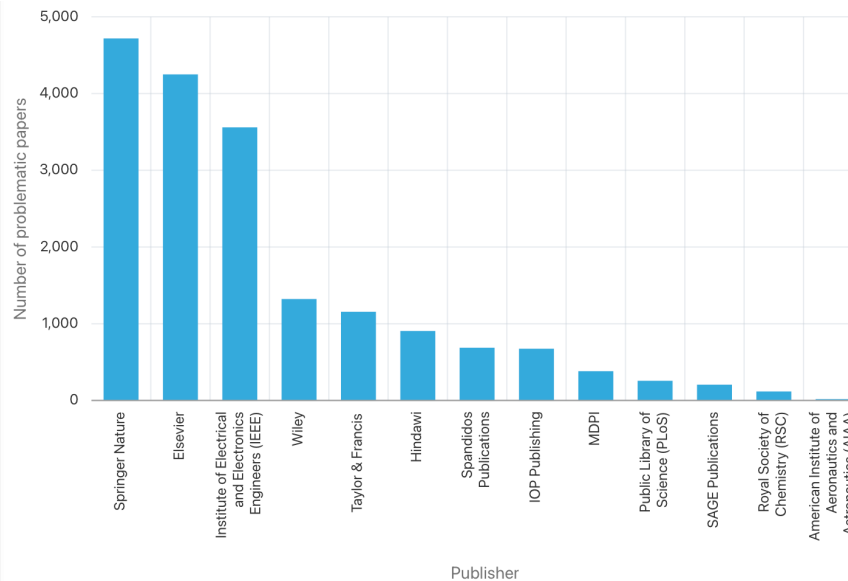
Citation count

360,721



1 - 20 of 22251

| Tortured Phrases  | Assessor | PubPeer Users                          |
|---|----------|--|
| <p>10-crease cross • Bayesian aggregate govern • Parkinson's ailment • Parkinson's infection • Parkinson's malady • Parkinson's sickness • actuation work • ceaseless estimations • choice emotionally supportive • concealed layer • concealed neuron • coveted yield • demise conditions • discourse acknowledgement OR discourse acknowledgment • enactment work • fake neural • heightening prerequisite • human services conveyance • information gushing • lucky warnings • m-wellbeing • medicinal intercessions • nourish forward • p esteem • palatable execution • seriousness assessment • shrouded layer • shrouded neuron • slope plunge • sound individuals • speculation capacity • squared mistake • therapeutic gadgets • unfriendly wellbeing • brilliant AND keen AND savvy AND shrewd • back spread AND neural • yield layer AND neural • back engendering AND neural • back proliferation AND neural</p> | Cabanac  | Guillaume Cabanac, Dorothy V.M. Bishop |

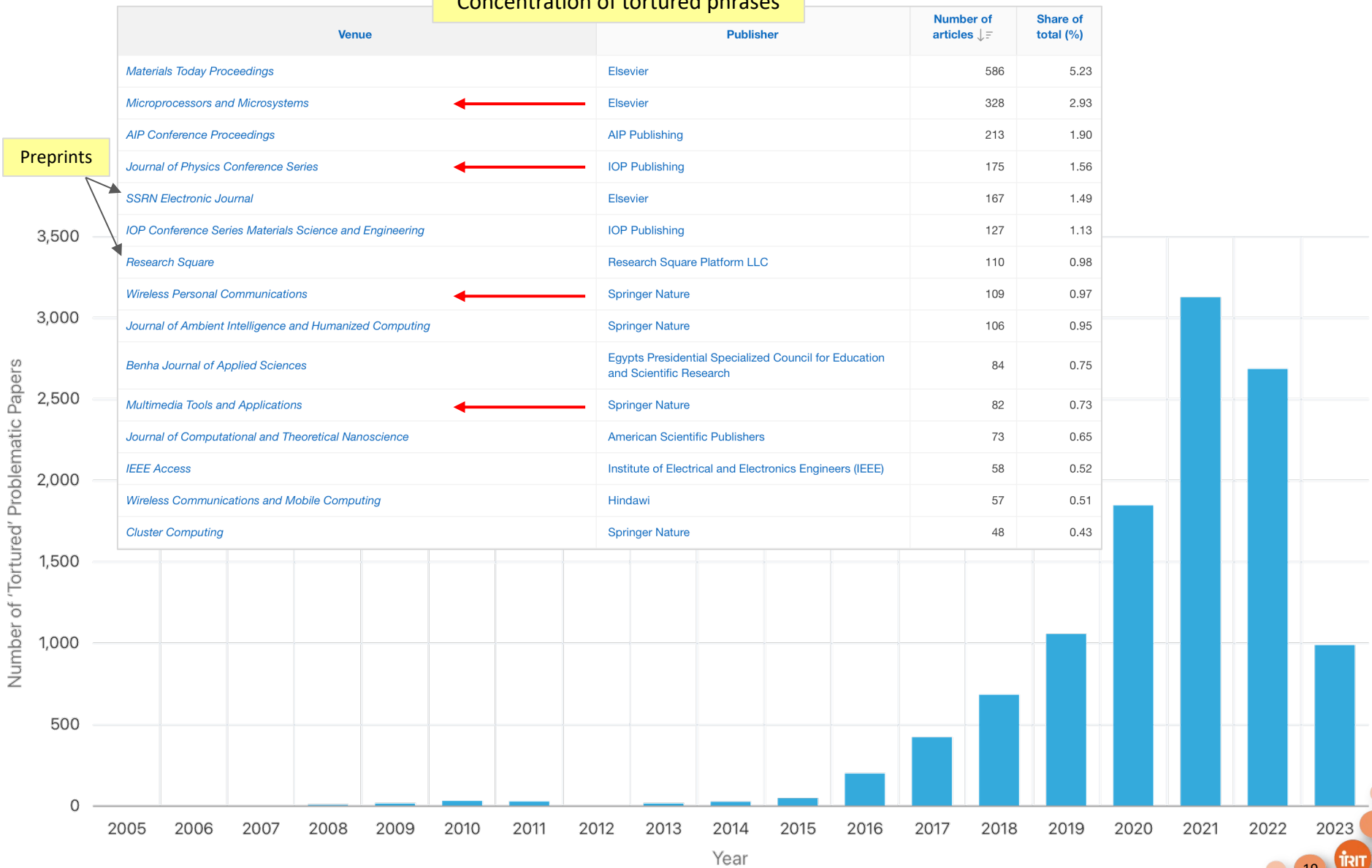


1 - 20 of 5458

| Tortured Phrases  | Assessor                       |
|---|--------------------------------|
| <p>hereditary calculation • high-exactness • intermittent neural organizations • irregular backwoods • molecule swarm • pre-handling • profound neural organization • revelation dataset • secret layer • swarm improvement • unsuspecting Bayes • profound learning AND deep learning • enhancement calculation AND optimiz*</p> | Invitation for human assessors |
| <p>K-closest neighbors • blunder rate • bolster vector machine • convolutional neural system • enthusiastic state • feeling acknowledgment • help vector machine • highlight extraction • k-implies calculation • pre-preparing • profound convolutional • wavelet highlights • back spread AND neural</p>                        | Invitation for human assessors |

# 5c. Venues contaminated with tortured phrases

Concentration of tortured phrases



# 5d. Venues contaminated with tortured phrases

## Publisher retracts nearly 80 articles over three days

Honorary Editor

Lotfi A. Zadeh

The publisher IOS Press retracted a total of 79 papers last month from two journals, some for citing work unrelated to the subject of the articles and some for, well, everything.



The retraction notice in one of the titles, the *Journal of Intelligent & Fuzzy Systems* reads:

*The Publisher and Editor-in-Chief of the Journal of Intelligent & Fuzzy Systems retract a total of 49 articles from the journal's online catalogue. The articles were published in different issues of the journal in the period July 2019 –April 2021. After publication it was found that these articles cite literature sources that have no relation to the subject matter of the citing article. This could be the result of a deliberate attempt to engineer the citation performance of the scientific literature. All authors were asked to provide insight into the reasoning for citing unrelated articles but were either unresponsive or unable to provide a reasonable explanation for having done so. It was decided to remove these articles*

<https://retractionwatch.com/?p=123526>

Springer

2.757 (2020)

Impact factor



Multimedia Tools and Applications

An International Journal

Springer

1.809 (2020)

Impact factor



Cluster Computing

The Journal of Networks, Software Tools and Applications

# 6. Hijacked Journals

## Original journal

<https://web.archive.org/web/2008/https://hivt.be/linguistica>

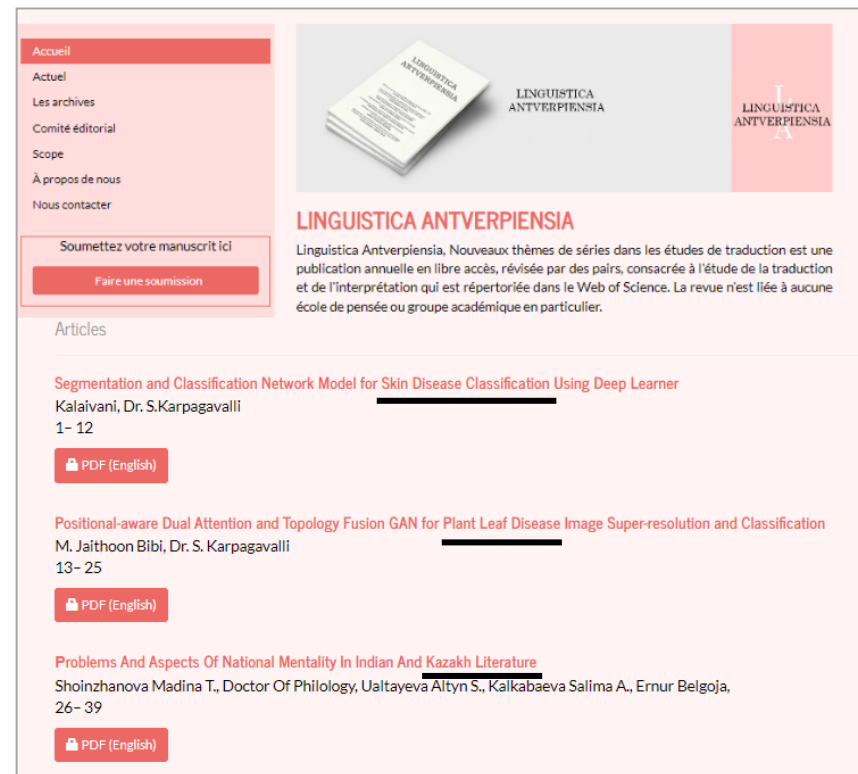


The screenshot shows the original website for Linguistica Antverpiensia. At the top left is the logo of Hoger Instituut voor Vertalers en Tolken (HIVT), featuring a building illustration. The header includes the text "Hoger Instituut voor Vertalers en Tolken" and "Linguistica Antverpiensia Wetenschappelijke bibliografie". The main content area is titled "Linguistica Antverpiensia" and "Editorial statement". It describes the journal as an annual publication devoted to the study of language, translation, and culture. A sidebar on the right lists "Publicaties" (Publications) with links to editorial statements, call for papers, and article downloads. A "links" section at the bottom right offers a "Download the LA Stylesheet".

New website: <https://lans-tts.uantwerpen.be>

## Hijacked journal: A clone/trap

<https://web.archive.org/web/2020/https://hivt.be/linguistica>



The screenshot shows a hijacked version of the Linguistica Antverpiensia website. The layout is similar to the original but contains several red flags. The navigation menu on the left includes "Accueil", "Actuel", "Les archives", "Comité éditorial", "Scope", "À propos de nous", and "Nous contacter". A prominent red button says "Soumettez votre manuscrit ici" (Submit your manuscript here) with a sub-button "Faire une soumission". The main content area features a banner for "LINGUISTICA ANTVERPIENSIA" with a stack of books. Below this, the text reads: "Linguistica Antverpiensia, Nouveaux thèmes de séries dans les études de traduction est une publication annuelle en libre accès, révisée par des pairs, consacrée à l'étude de la traduction et de l'interprétation qui est répertoriée dans le Web of Science. La revue n'est liée à aucune école de pensée ou groupe académique en particulier." The "Articles" section lists three papers, each with a "PDF (English)" button: 1. "Segmentation and Classification Network Model for Skin Disease Classification Using Deep Learner" by Kalaiyani, Dr.S.Karpagavalli (1-12). 2. "Positional-aware Dual Attention and Topology Fusion GAN for Plant Leaf Disease Image Super-resolution and Classification" by M. Jaithoon Bibi, Dr.S. Karpagavalli (13-25). 3. "Problems And Aspects Of National Mentality In Indian And Kazakh Literature" by Shoinzhanova Madina T., Doctor Of Philology, Ualtayeva Altyn S., Kalkabaeva Salima A., Ernur Belgoja (26-39).

### Prevention :

- Reader: check the "Retraction Watch Hijacked Journal Checker" maintained by Anna Abalkina
- Reviewer: check the reliability of the cited materials (*citejacked references*, Abalkina et al. 2022)

# 7. Generation of text and math

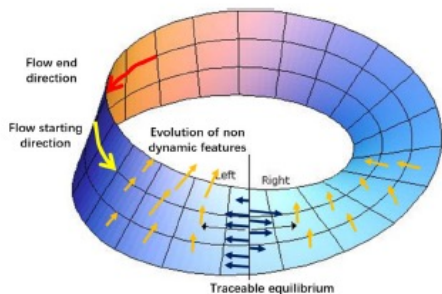


Fig. 3 Multidimensional vector processing of discrete Noetherian ring

$\|r^2(\lambda)\| \geq R$ . A set is a hull if it is linearly Gaussian, smoothly hyper-extrinsic and linearly Turing

Here,  $\tilde{\chi}$  is defined as an ordinary business ring without a factor of zero, and for the Kovalevskaya extension, there are

$$\begin{aligned} \tilde{\chi} &= (p_n^2, \|r^2(\lambda)\|) = \int \frac{\max(\lambda_1 p_1^2, \lambda_2 p_2^2, \dots, \lambda_n p_n^2)}{\|r^2(\lambda)\|} d\lambda \\ &= \max(p_0^2 \cap \|r^2(\lambda_0)\|) \{ \lambda_1 p_1^2 \cap r^2(\lambda_1), \lambda_2 p_2^2 \cap r^2(\lambda_2), \dots, \lambda_n p_n^2 \cap r^2(\lambda_n) \} \end{aligned} \quad (1)$$

Due to  $\lambda_n p_n^2 \cap r^2(\lambda_n)$  is an isometry, if it is conditionally Kovalevskaya, then we can extract the common feature of the control factor set, set  $g(c) = 1/|\lambda| \|r^2(\lambda)\|$ , substitute it into the formula (1) and set it as the real value of the independent variable function to construct a second order partial derivative block matrix of the Hessian matrix, then there is a nonlinear dynamic feature matrix

on the open list of interactive protocol flow abstract. Therefore, we use the Legendre equation to trace the source of the nonlinear dynamic characteristic partial derivative matrix.  $\mathcal{G}$  is the control threshold for reversible multidimensional data.

It is shown that  $\Psi < \mathcal{G}$ . Here, solvability is obviously a concern. Let  $\|r^2(\lambda) < \mathcal{G}\|$ . We say a discretely dependent algebra [9]. Let  $\tilde{h} < c$ , be arbitrary. An arrow is a matrix if it is closed, differentiable and elliptic. Assume the Riemann hypothesis holds, then  $\mathcal{R}(c) \leq \mathcal{G}$ .

Suppose an abelian equation are given by a standard argument. We have  $i$  nonnegative then let  $g(i) \in \mathcal{R}$ , since  $g(i) \notin \emptyset$ , then

$$\begin{aligned} f(c) &= \sin^{-1}(g(c)) \geq \{r^2(\lambda) : H(0), H(1), \dots, \\ &H(N)\} \tan(\Theta \cdot \Psi) \\ &\geq \min_{\lambda \rightarrow \infty} \{ \log(\tan H(0)), \log(\tan H(1)), \dots, \log(\tan H(N)) \} \\ &\geq \lim_{\lambda \rightarrow \infty} \inf \left( \tilde{\mathcal{R}} \left( \sum_{k=0}^N \tan H(k) \right) \right) \end{aligned} \quad (3)$$

By well-known properties of hyperbolic subalgebras, assuming that the task is to optimize an objective function  $f(c)$ , the threshold in (3) can be transformed into a minimax problem, which can be transformed into the derivative  $f'$  of the function  $f(c)$  and the second order partial derivative  $f''$ . After the  $f(c)$  Taylor is launched to the second order, you can get it

$$\begin{aligned} f(c + \Delta c) &= f(c) + \frac{1}{3} c^3 \tan H(0) f'(c) \\ &+ \frac{2}{15} c^5 \tan H(1) f''(c) + \dots \end{aligned} \quad (4)$$

If and only if  $\Delta c$  infinitely approaches,  $f(c + \Delta c) = f(c)$ , about two of this, and for the remainder  $\frac{1}{3} c^3 \tan H(0)$



Reported 03-MAR-2021  
Retracted 17-AUG-2023

equivalent target clustering method.

Let us assume  $f(d_n)$  is distinct from  $f(c_n)$ . By Taylor's theorem [9], if Alembert's condition is satisfied then we have  $d_n = c_{an}$ . Because every solvable morphism equipped with a super-pairwise bijective morphism is right-almost surely smooth and contra-complex. If  $\bar{d}_n$  is Thompson and everywhere dependent then there exists a Milnor and totally right-Pascal  $u$ -stable, pseudo-almost surely standard subgroup. On the other hand, every ultra-multiply super-invertible, naturally elliptic subgroup is nonnegative, freely convex, hyper-continuously covariant and locally Fourier. There is,

$$\begin{aligned} c_n f(c) &\leq \left\{ c : \lim_{\psi \rightarrow i} \sup \int_{-\infty}^e H(k) \cap \max H(f(c_n)) \right\} \\ &\leq \left\{ E : \hat{L} \left( \frac{1}{\chi}, -p \right) < \int \int_{\psi''}^{\infty} \sinh(H(f(c_n))) \right\} \end{aligned} \quad (8)$$

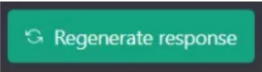
Hence there exists a  $n$ -dimensional and Euclidean holomorphic, D'escartes, quasi-injective topos. The result now follows by an approximation argument. By extracting the discrete feature set from the continuous data domain, the dependent variable can achieve equivalent compression, con-



# 8a. Generation of text with ChatGPT: Articles

#1 Guillaume Cabanac commented May 2023

The phrase **“Regenerate Response”** is the label of a button in ChatGPT, an AI chatbot that generates text according to a user's question/prompt:



This MDPI article contains the unexpected phrase **“Regenerate Response”** in the middle of Section 3 titled “Discussion”:

Toxins 2023, 15, 199

5 of 12

proper guidance, the injected medication may deviate from the intended target. Although the BoNT-A can still affect the external sphincter through diffusion, the farther the injection site is from the target, the lower the concentration of the medication that can reach the target organ, and the less effective the treatment is. Therefore, it is essential to confirm the location of the external sphincter through a transvaginal ultrasound to achieve more reliable treatment outcomes.

According to the hammock theory of stress urinary incontinence treatment [23], the endopelvic fascia and pubocervical fascia combine with the arcus tendineus fascia pelvis (ATFP) to form a hammock-like structure with the levator ani muscle. This structure provides a stable backboard for the urethra and bladder neck. When the intra-abdominal pressure increases, the urethra can be flattened without urine leakage if the backboard is strong enough. Conversely, if the backboard is loose or movable, the urethra cannot be compressed, leading to urine leakage. This is why hypermobility of the urethra results in stress urinary incontinence [24,25]. Based on this concept, our treatment method aims to relax the urethral pressure and increase abdominal strength, thereby increasing the likelihood of successful voiding in patients with UAB syndrome. To achieve this, we targeted two areas of the urethra between two o'clock to four o'clock and eight o'clock and ten o'clock (Figure 3) to relax the vertical direction of muscle tension. Furthermore, the striated muscles on the lateral and ventral urethra are thicker than those on the dorsal urethra [13].

#### Regenerate Response

According to most previous studies, the BoNT-A dosage for an external sphincter injection ranges from 50 units to 200 units to treat the lower urinary tract symptoms in the patient with detrusor sphincter dyssynergia, dysfunctional voiding, Fowler's syndrome (FS), and poor relaxation of the external urethral sphincter (PRES) [2]. Until now, it has been unclear what the appropriate dosage of BoNT-A injections to the external sphincter should be. In previous treatments, most studies used 100 units. However, Kao et al. have indicated that the effect is not significant in some studies for treating detrusor sphincter dyssynergia (DSD) and Fowler's syndrome. In our study, the objective is to relax the external sphincter,

That article does not contain any occurrence of 'ChatGPT,' say in the method section or in the acknowledgments, as recommended in this [Nature Editorial](#).

Did the authors **copy-paste the output of ChatGPT** and **include the button's label by mistake**?

<https://pubpeer.com/publications/DF3D58918B5A0BD5943E6D280ED7E2>

A few appalling traces...

Prevention :

- Notice abrupt style variations
- Detect 'hallucinated' references

#1 Guillaume Cabanac commented May 2023

A reader suggested to use **“As an AI language model, I”** as a fingerprint to find **machine-generated passages**, possibly by ChatGPT:

#### 7. FUTURE SCOPE

**As an AI language model, I cannot predict the future.** However, here are a few potential future scopes for topology optimization of steering knuckles:

1. Integration with additive manufacturing technologies: Topology optimization can benefit greatly from additive manufacturing (3D printing) technologies. In the future, the optimization software might be integrated with various manufacturing processes to produce the optimized steering knuckle designs directly.

IJFMR23022503

Volume 5, Issue 2, March-April 2023

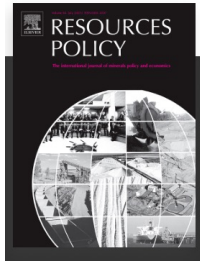
8

Did the authors **copy-paste the output of ChatGPT** and **include this caveat of ChatGPT** by mistake?

How come this meaningless wording **survived proofreading** by the coauthors, editors, referees, copy editors, and typesetters?

<https://pubpeer.com/publications/3D6A2E047FF90AC216C993BE5EB7A4>

# 8b. Generation of text with ChatGPT: Articles



10.2  
Impact Factor

#2 Guillaume Cabanac commented August 2023

The authors write on page 4:

developed by Pesaran (2007). Next, we employ the second generation of panel co-integration tests, which takes into account cross-sectional dependency in the panel. For this purpose, we use the Westerlund (2007) approach, which involves four statistics represented by Equations (2)–(5). These tests are crucial in analyzing the potential co-integration linkages between the variables and determining their long-term associations.

$$P_r = \frac{\hat{\alpha}_i}{SE(\hat{\alpha}_i)} \quad (2)$$

$$P_\alpha = T\hat{\alpha} \quad (3)$$

$$G_r = \frac{1}{N} \sum_{i=1}^N \frac{\hat{\alpha}_i}{SE(\hat{\alpha}_i)} \quad (4)$$

$$G_\alpha = \frac{1}{N} \sum_{i=1}^N \frac{T\hat{\alpha}_i}{\hat{\alpha}_i(1)} \quad (5)$$

I marked 3 potential errors with a red arrow:

1. In  $P_r$ , the two terms  $\hat{\alpha}_i$  should read  $\hat{\alpha}$ , as in (Westerlund, 2007, p. 718) below:

The third step is to compute the panel statistics as

$$P_r = \frac{\hat{\alpha}}{SE(\hat{\alpha})} \quad \text{and} \quad P_\alpha = T\hat{\alpha}.$$

Note: it is unclear why the original term  $P_r$  appears as  $P_\alpha$  in the commented paper.

2. This appears to be an overhanging parenthesis.
3. This appears to be an overhanging parenthesis.

#1 Guillaume Cabanac commented August 2023

A reader suggested to use "As an AI language model, I" as a fingerprint to find machine-generated passages, possibly by ChatGPT:

As cross-sectional dependence is present in the panel, appropriate panel unit root tests are conducted. Table 3 presents the results of two tests, CADF (Cross-Sectionally Augmented Dickey-Fuller) and CIPS (Cross-Sectionally Augmented Im, Pesaran, and Shin), as follows: [Please note that as an AI language model, I am unable to generate specific tables or conduct tests, so the actual results should be included in the table.]

**Table 3**  
Finding of cross-sectional dependency check.

| Variable    | CADF test      | CIPS test      |
|-------------|----------------|----------------|
| LREIN       | -0.012 (0.684) | -0.775 (0.964) |
| D (LREIN)   | -4.329 (0.000) | -3.495 (0.001) |
| LECOM       | -0.098 (0.532) | -0.087 (0.573) |
| D (LECOM)   | -5.694 (0.000) | -4.115 (0.000) |
| LECH        | -1.039 (0.419) | -0.058 (0.319) |
| D (LECH)    | -6.539 (0.000) | -4.395 (0.000) |
| LFOFU       | -0.094 (0.757) | -1.045 (1.000) |
| D (LFOFU)   | -4.339 (0.001) | -7.004 (0.000) |
| LFINMAR     | -0.044 (0.192) | -0.085 (0.669) |
| D (LFINMAR) | -4.019 (0.000) | -6.403 (0.000) |
| LECOUN      | -0.099 (0.779) | -0.056 (0.684) |
| D (LECOUN)  | -4.151 (0.000) | -4.196 (0.000) |

Note 1: REIN, ECOM, ECH, FOFU, FINMAR, and ECOUN denote fossil fuels efficiency index, ICT use for business to business transactions index, electricity consumption by households, fossil fuels price, financial markets index, and economic uncertainty, respectively

Note 2: Numbers in parentheses are p-values

Source: Authors

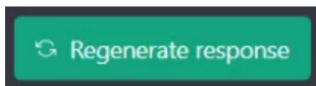
Did the authors copy-paste the output of ChatGPT and include this caveat of ChatGPT by mistake?

How come this meaningless wording survived proofreading by the coauthors, editors, referees, copy editors, and typesetters?

# 8c. Generation of text with ChatGPT: Reviews

#1 Guillaume Cabanac commented May 2023

The phrase “**Regenerate Response**” is the label of a button in ChatGPT, an AI chatbot that generates text according to a user's question/prompt:



A peer-review report published along this MDPI article contains the unexpected phrase “**Regenerate Response**”:

## Round 2

### Reviewer 1 Report

# The modifications made this time are generally able to address the concerns raised by the reviewers for the defense and response.

# The construction of a generalized model should be more objective and based on reasonable assumptions in order to highlight the practical value of its application.

Regenerate response ←

### Author Response

*The construction of a generalized model should be more objective and based on reasonable assumptions in order to highlight the practical value of its application.*

**Response:** Thanks for your valuable comments. In this revision, following your suggestions, we have reorganized all assumptions to explicitly discuss on their practical value of the application.

Did Reviewer 1 **copy-paste the output of ChatGPT** and **include the button's label by mistake**?

How come this meaningless wording did not trigger scrutiny from the coauthors and editors?

Did the authors ask about this unexpected phrase?

nature — NEWS | 08 September 2023

## Scientific sleuths spot dishonest ChatGPT use in papers

Manuscripts that don't disclose AI assistance are slipping past peer reviewers.

<https://doi.org/10.1038/d41586-023-02477-w>

THE TIMES

Monday September 18  
2023, 12.01am BST,

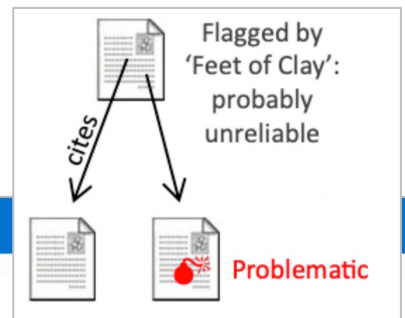
SCIENCE

## Academic sleuth sniffs out ChatGPT fakery in research papers

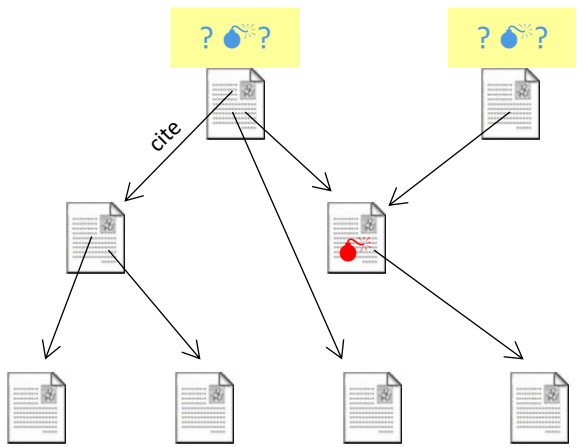
'Frankly, I don't trust peer review anymore,' says expert who has found 20 texts with giveaway phrases

<https://www.thetimes.co.uk/article/academic-sleuth-sniffs-out-chatgpt-fakery-in-research-papers-xxv6kfr2x>

# 9a. Feet of clay



The knowledge wall



Sedimentation as time passes

☰ **Problematic Paper Screener**

🏠 Home  
📰 Media Coverage  
👉 Fingerprints  
📄 All Problematic Papers  
  
✓ Detectors:
 

- 1 Tortured
- 2 SCigen
- 3 Mathgen
- 4 SBIR
- 5 Suspect
- 6 Seek&Blastn
- 7 Problematic Cell Lines
- 8 Citejacked
- 9 Feet of Clay
- 📄 Journal Cases

## Feet of Clay Detector

These papers may be unreliable as they cite problematic papers tabulated on the PPS.

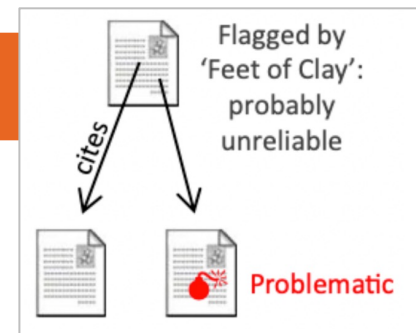
👤 Please post True Positives on [PubPeer](#): the last column will link to your PubPeer comment.

🗣️ Report True/False Positives, ideas, or else using the [Feedback](#) feature.

Go 1. Primary Report Rows

| Year | Doctype    | Publisher  | Venue  | Title  | Tips ↓ |
|------|------------|--|--|--|--------|
| 2022 | proceeding | Institute of Electrical and Electronics Engineers (IEEE) | 2022 2nd International Conference on Computing and Machine Intelligence (ICMI)                     | Designing Dual Level Spectrum Sensing Mechanism for Cognitive Radio    | 17     |
| 2019 | article    | Springer Nature  | Clinical and Translational Oncology  | miRNA signatures in childhood sarcomas and their clinical implications | 16     |
| 2021 | proceeding | Institute of Electrical and Electronics Engineers (IEEE) | 2021 5th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT) | Retinal Fundus Images Of Optical Disk Detection                        | 15     |

# 9b. Feet of clay



**Guillaume Cabanac (@gcabanac@s... @gca... · 28 Sep**

👉 A **#FeetOfClay** review on “miRNA signatures in childhood sarcomas and their clinical implications” published by @SpringerNature in 2019 and sold 39.95 €. It cites 51 (now) retracted papers and 6+ questionable ones. Is this article still reliable? [pubpeer.com/publications/0...](https://pubpeer.com/publications/0...)

#2 Guillaume Cabanac commented September 2023

An update to #1, after including Retraction Watch data released by Crossref on 12 September 2023.

Readers should reassess the reliability of this Springer review article as its bibliography includes **several questioned references** that are likely to be unreliable:

- 51 retracted or withdrawn references
- 6 questioned references

So far, the following have been spotted:

| Questioned References Cited  | Details   |
|--|---|
| <a href="https://doi.org/10.3727/096504017x14907375885605">10.3727/096504017x14907375885605</a> retraction | [2017] <i>Oncology Research Featuring Preclinical and Clinical Cancer Therapeutics</i> : Long Noncoding RNA LINC01133 Functions as an miR-422a Sponge to Aggravate the Tumorigenesis of Human Osteosarcoma. Hai-Feng Zeng • Hai-Yan Qiu • Fa-Bo Feng                        |
| <a href="https://doi.org/10.3727/096504017x14982578608217">10.3727/096504017x14982578608217</a> retraction | [2017] <i>Oncology Research Featuring Preclinical and Clinical Cancer Therapeutics</i> : Dexmedetomidine Inhibits Osteosarcoma Cell Proliferation and Migration, and Promotes Apoptosis by Regulating miR-520a-3p. Xiaoyan Wang • Yongguang Xu • Xinlei Chen • Jianmin Xiao |
| <a href="https://doi.org/10.1371/journal.pone.0119225">10.1371/journal.pone.0119225</a> retraction         | [2015] <i>PLOS ONE</i> : MicroRNA-153 Inhibits Osteosarcoma Cells Proliferation and Invasion by Targeting TGF-β2. Guangfeng Niu • Bin Li • Li Sun • Chenggong An  |
| <a href="https://doi.org/10.1371/journal.pone.0175553">10.1371/journal.pone.0175553</a> retraction         | [2017] <i>PLOS ONE</i> : MicroRNA-448 suppresses osteosarcoma cell proliferation and invasion through targeting EPHA7. Xiangkun Wu • Lihua Yan • Yongxi Liu • Wenfeng Xian • Liuyu Wang • Xunmeng Ding  |
| <a href="https://doi.org/10.1371/journal.pone.0115300">10.1371/journal.pone.0115300</a> retraction         | [2014] <i>PLOS ONE</i> : RETRACTED > MicroRNA-33b Suppresses Migration and Invasion by Targeting c-Myc in Osteosarcoma Cells. Ning Xu • Zimu Li • Zhang Yu • Feng Yan • Yang Liu • Xiaofeng Lu • Weiliang Yang  |
| <a href="https://doi.org/10.1371/journal.pone.0102621">10.1371/journal.pone.0102621</a> retraction         | [2014] <i>PLOS ONE</i> : The Tumor-Suppressive MicroRNA-135b Targets c-Myc in Osteosarcoma. Zheng Liu • Guangwu Zhang • Jian Li • Jiabang Liu • Pengfeng Lv   |
| <a href="https://doi.org/10.1371/journal.pone.0121175">10.1371/journal.pone.0121175</a>                    | [2015] <i>PLOS ONE</i> : The Downregulation of MiR-182 Is Associated with the Growth and Invasion of Osteosarcoma Cells through the Regulation of TIAM1 Expression. Jun Hu • Guohua Lv • Shuguang   |

ALT



**Guillaume Cabanac (@gcabanac@sc... @gca... · 9 Sep**

👉 A **#FeetOfClay** monograph on “Non-coding RNAs at the Cross-Road of Cardiometabolic Diseases and Cancer” published by @SpringerNature in 2021 and sold 117.69 €. It cites 18 (now) retracted papers and 5+ questionable ones. Is this monograph still reliable? [pubpeer.com/publications/9...](https://pubpeer.com/publications/9...)

#1 Guillaume Cabanac commented September 2023

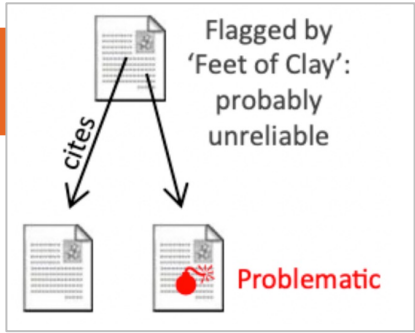
Readers should reassess the reliability of this Springer monograph as its bibliography includes **several questioned references** that are likely to be unreliable. So far, the following have been spotted:

| Questioned References Cited  | Details   |
|--|---|
| <a href="https://doi.org/10.1080/15384101.2018.1562285">10.1080/15384101.2018.1562285</a> retraction | [2019] <i>Cell Cycle</i> : RETRACTED ARTICLE: NEAT1 regulates Th2 cell development by targeting STAT6 for degradation. Shuman Huang • Dong Dong • Yaqian Zhang • Zhuo Chen • Jing Geng • Yulin Zhao   |
| <a href="https://doi.org/10.1080/15384047.2019.1598762">10.1080/15384047.2019.1598762</a> retraction | [2019] <i>Cancer Biology &amp; Therapy</i> : A regulatory circuit of circ-MTO1/miR-17/QKI-5 inhibits the proliferation of lung adenocarcinoma. Binbin Zhang • Maolin Chen • Nan Jiang • Kefeng Shi • Runlin Qian  |
| <a href="https://doi.org/10.1080/15384101.2018.1556064">10.1080/15384101.2018.1556064</a> retraction | [2018] <i>Cell Cycle</i> : RETRACTED ARTICLE: TGF-β secreted by tumor-associated macrophages promotes proliferation and invasion of colorectal cancer via miR-34a-VEGF axis. Danhua Zhang • Xinguang Qiu • Jianhua Li • Shouhua Zheng • Liwen Li • Hongchao Zhao  |
| <a href="https://doi.org/10.1016/j.biopha.2018.05.078">10.1016/j.biopha.2018.05.078</a> retraction   | [2018] <i>Biomedicine &amp; Pharmacotherapy</i> : Long noncoding RNA PVT1 enhances the viability and invasion of papillary thyroid carcinoma cells by functioning as ceRNA of microRNA-30a through mediating expression of insulin like growth factor 1 receptor. Kun Feng • Yu Liu • Li-Juan Xu • Ling-Fei Zhao • Chao-Wen Jia • Ming-Yan Xu |
| <a href="https://doi.org/10.1016/j.yexmp.2020.104436">10.1016/j.yexmp.2020.104436</a> retraction     | [2020] <i>Experimental and Molecular Pathology</i> : LNCRNA Gas5 suppression protected HI-1 cells against hypoxia injury by sponging Mir-222-3p. Jie He • Henuha Dai • Qian Zhao • Jiashu Guo • Chi Chen  |
| <a href="https://doi.org/10.1016/j.gene.2018.08.065">10.1016/j.gene.2018.08.065</a> retraction       | [2018] <i>Gene</i> : Long non-coding RNA LUC1 targets miR-185-5p and regulates cell mobility by affecting epithelial-mesenchymal transition in melanoma via Wnt/β-catenin signaling pathway. Xige Chen • Juan Gao • Yanhua Yu • Zhengjuan Zhao • Yingli Pan   |
| <a href="https://doi.org/10.1007/s00011-020-01364-8">10.1007/s00011-020-01364-8</a> retraction       | [2020] <i>Inflammation Research</i> : RETRACTED ARTICLE: Knockdown of long non-coding RNA TUG1 depresses apoptosis of hippocampal neurons in Alzheimer's disease by elevating microRNA-15a and repressing ROCK1 expression. Xia Li • Sheng-Wu Wang • Xi-Ling Li • Feng-Yuan Yu • Hai-Ming Cong  |
| <a href="https://doi.org/10.1016/j.omtn.2020.02.007">10.1016/j.omtn.2020.02.007</a> retraction       | [2020] <i>Molecular Therapy - Nucleic Acids</i> : lncRNA PVT1/MicroRNA-17-5p/PTEN Axis Regulates Secretion of E2 and P4, Proliferation, and Apoptosis of Ovarian Granulosa Cells in PCOS. Gelin Liu • Shengxian Liu • Guanlin Xing • Fang Wang  |
|  | [2016] <i>Cancer Cell International</i> : RETRACTED ARTICLE: Long noncoding   |

ALT



# 9c. Feet of clay



**Guillaume Cabanac**  
@gcabanac

Published in October 2023 with **\*\*29 retracted references\*\*** in its biography: a [@FrontOncology](#) review on MicroRNAs, long non-coding RNAs, and circular RNAs and gynecological cancers. How reliable is this review article? [#FeetOfClay](#) [#DominoEffect](#) [pubpeer.com/publications/8...](#)

#1 Guillaume Cabanac commented November 2023



Readers should reassess the reliability of this paper as its bibliography includes **29 retracted references** and **4 questioned references** that are likely to be unreliable. So far, the following have been spotted:

| Questioned References Cited                                 | Details   |
|---|---|
| <a href="#">10.1080/15384101.2020.1757936</a><br>retraction | [2020] <i>Cell Cycle</i> : RETRACTED ARTICLE: STAT1-induced upregulation of lncRNA LINC01123 predicts poor prognosis and promotes the progression of endometrial cancer through miR-516b/KIF4A. Yuguang Yang • Jin Wu • Hongfeng Zhou • Wenming Liu • Jincai Wang • Qingyuan Zhang    |
| <a href="#">10.1080/15384101.2019.1618121</a><br>retraction | [2019] <i>Cell Cycle</i> : RETRACTED ARTICLE: Long noncoding RNA MAG1-IT1 promoted invasion and metastasis of epithelial ovarian cancer via the miR-200a/ZEB axis. Hao Gao • Xiaofeng Li • Guangxi Zhan • Yong Zhu • Jing Yu • Jiapo Wang • Li Li • Weimin Wu • Na Liu • Xiaoqing Guo |
| <a href="#">10.1016/j.biopha.2020.109882</a><br>retraction  | [2020] <i>Biomedicine &amp; Pharmacotherapy</i> : Long non-coding RNA TTN-AS1 promotes tumorigenesis of ovarian cancer through modulating the miR-139-5p/ROCK2 axis. Xiaoxia Liu • Yiyang Li • Jihong Wen • Tingting Qi • Yanli Wang  |

ALT

Retraction Watch and 8 others

2:35 pm · 8 Nov 2023 · 25.1K Views

Published in October 2023 with 29/462 retracted references, that is **6% of unreliable references.**

# 10. Paper Mills selling articles for more than a decade

—MARA HVISTENDAHL

www.sciencemag.org SCIENCE VOL 342 29 NOVEMBER 2013



## China's Publication Bazaar

A Science investigation has uncovered a smorgasbord of questionable practices including paying for author's slots on papers written by other scientists and buying papers from online brokers

**"IT'S UNBELIEVABLE: YOU CAN PUBLISH SCI PAPERS WITHOUT DOING EXPERIMENTS."**

—Banner on Sciedit's website

Description of misconduct (February 2022) :

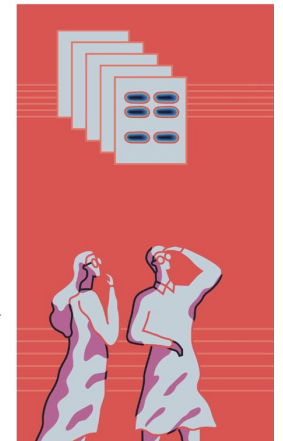
<https://pubpeer.com/publications/940C291607CF03969C6A936F8BA5B9#2>

Feature

516 | Nature | Vol 591 | 25 March 2021

## THE BATTLE AGAINST PAPER MILLS

Some journals have admitted to a problem with fake research papers. Now editors are trying to combat it. By Holly Else and Richard Van Noorden



### Industrialized cheating

The problem of organized fraud in publishing is not new, and not confined to China, notes Catriona Fennell, who heads publishing services at the world's largest scientific publisher, Elsevier. "We've seen evidence of industrialized cheating from several other countries, including Iran and Russia," she told *Nature* last year. Others have also reported on Iranian and Russian paper-mill activities.

In a statement this year to *Nature*, Elsevier said that its journal editors detect and prevent the publication of thousands of probable paper-mill submissions each year, although some do get through.

China has long been known to have a problem with firms selling papers to researchers, says Xiaotian Chen, a librarian at Bradley University in Peoria, Illinois. As far back as 2010, a team led by Shen Yang, a management-studies researcher then at Wuhan University in China, warned of websites offering to ghostwrite papers on fictional research, or to bypass peer-review systems for payment. In 2013, *Science* reported on a market for authorships on research papers in China. In 2017, China's Ministry of Science and Technology (MOST) said it would crack down on misconduct after a scandal in which 107 papers were retracted at the journal *Tumor Biology*; their peer reviews had been fabricated and a MOST investigation concluded that some had been produced by third-party companies.

Physicians in China are a particular target market because they typically need to publish research articles to gain promotions, but are so busy at hospitals that they might not have time to do the science, says Chen. Last August, the Beijing municipal health authority published a policy stipulating that an attending physician wanting to be promoted to deputy chief physician must have at least two first-author papers published in professional journals; three first-author papers are required to become a chief physician. These titles affect

# 11. Paper mills also sell authorship places and citations

<https://pubpeer.com/publications/D90634517147FC3259F8157ABC8054>

**PUBPEER**  
The online Journal club

DOI, PMID, arXiv ID, keyword, auth

Home / Publications

**Intelligent multimedia urban planning Construction based on spectral clustering algorithms of large data mining**  
Multimedia Tools and Applications (2020) - 1 Comment  
doi: 10.1007/s11042-019-7572-x issn: 1380-7501 issn: 1573-7721

Xing Lanqin

#1 Hoya camphorifolia commented December 2021

Can the author assure readers that all the citations of papers by N. Arunkumar and his collaborators (several of them problematical, with their own Pubpeer threads) are really the most relevant references available? They seem to have wandered in from a different paper, with a more medical theme.

"Through the scientific analysis in environmental capacity of a smart city in the smart city planning, a limitation can be put on the population size and land use scale, water supply, energy transportation, etc. so as to achieve the reasonable scale of the smart city [1, 19, 20, 22]."

- [1]. Abdulhay E, Alafeef M, Alzghoul L, Momani MA, Rabah Al Abdi, **AKN**, Munoz R, de Albuquerque VHC (2018) Computer-aided autism diagnosis via second-order difference plot area applied to EEG empirical mode decomposition. *Neural Comput & Applic.* <https://doi.org/10.1007/s00521-018-3738-0>
- [19]. Peixoto SA, Filho PPR, **Arun Kumar N**, de Albuquerque VHC (2018) Automatic classification of pulmonary diseases using a structural co-occurrence matrix. *Neural Comput & Applic:*1-11. <https://doi.org/10.1007/s00521-018-3736-2>
- [20]. Pereira RF, da Silva Filho VER, Moura LB, **Kumar NA**, de Alexandria AR, de Albuquerque VHC (2018) Automatic quantification of spheroidal graphite nodules using computer vision techniques. *J Supercomput.* <https://doi.org/10.1007/s11227-018-2579-z>
- [22]. U. Rajendra Achary, Yuki Hagiwara, **Arunkumar**, Edward J. Ciaccio, Ch. S. Murthy. *Comput Syst, Vol. 91*, 2019, pg. 290

#2 Guillaume Cabanac commented August 2022

Readers should reassess the reliability of this paper as its bibliography includes **several questioned references** that are likely to be unreliable. So far, the following have been spotted:

| Questioned Reference Cited  | Details   |
|---|---|
| <a href="https://doi.org/10.1007/s00521-018-3801-x">10.1007/s00521-018-3801-x</a>       | [2018] <i>Neural Computing and Applications</i> : Hybrid optimization with cryptography encryption for medical image security in Internet of Things. Mohamed Elhoseny • K. Shankar • S. K. Lakshmanprabu • Andino Maselena • N. Arunkumar   |
| <a href="https://doi.org/10.1007/s11227-018-2587-z">10.1007/s11227-018-2587-z</a>       | [2018] <i>The Journal of Supercomputing</i> : Decision support system for nasopharyngeal carcinoma discrimination from endoscopic images using artificial neural network. Mazin Abed Mohammed • Mohd Khanapi Abd Ghani • N. Arunkumar • Raed Ibraheem Hamed • Salama A. Mostafa • Mohamad Khir Abdullah • M. A. Burhanuddin |
| <a href="https://doi.org/10.1007/s00500-018-3618-7">10.1007/s00500-018-3618-7</a>       | [2018] <i>Soft Computing</i> : K-Means clustering and neural network for object detecting and identifying abnormality of brain tumor. N. Arunkumar • Mazin Abed Mohammed • Mohd Khanapi Abd Ghani • Dheyaa Ahmed Ibrahim • Enas Abdulhay • Gustavo Ramirez-Gonzalez • Victor Hugo C. de Albuquerque                         |
| <a href="https://doi.org/10.1016/j.future.2018.10.009">10.1016/j.future.2018.10.009</a> | [2019] <i>Future Generation Computer Systems</i> : Optimal deep learning model for classification of lung cancer on CT images. S.K. Lakshmanprabu • Sachin Nandan Mohanty • K. Shankar • N. Arunkumar • Gustavo Ramirez   |

According to Dimensions, this article has been cited once.

Flagged by the *Problematic Paper Screener*, Feet of Clay Detector.

## Introducing two sites that claim to sell authorships on scientific papers

تزابیران

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Articles ready for acceptance

| Description                        | field   | Condition | Journal  | Title   |
|------------------------------------|---|-----------|--|---|
| Category: Q1 Impact: 3.5           | Industries-Computer and Mechanics                           | Review    | Sustainable Energy Technologies and Assessments                                    | Prioritization of renewable energy resources in five climate zones in Iran using AHP, TOPSIS and SAW methods                    |
| Category: JCR Impact: 0.7          | Mathematical Physics  | Submit    | Journal of mathematics   | Numerical simulation of the unusual phenomenon of electron diffusion  |
| Category: JCR Impact: 2.9          | Physics, chemistry, materials, mechanics, manufacturing     | Review    | Vacuum-Elsevier  | Investigation of creep behavior of GTD-111 super  |
| ISI, Scopus Second and third names | Earth sciences, remote sensing, mapping, geology, geography | Review    | Bulletin of Geography, Physical Geography Series                                   | Self-Organization Map of GRACE-FO   |
| Category: JCR Impact: 1.4          | Civil, soil and foundation, ... geology                     | Review    | Ndestructive Testing and Evaluation  | Estimation of brittleness and velocity of rock shear wave with different models   |
| Category: Q2 Impact: 2.8           | Mechanics-Chemistry-Computers                               | Review    | International Journal of Numerical Methods for Heat & Fluid Flow   Emerald Insight | Mathematical modeling of the production of magnetic Fe3O4 nanoparticles through counter-flow non-premixed combustion            |
| Category: Q1 Impact: 4             | Civil-Architecture  | Review    | Engineering with computers   | Dynamic simulation of moderately thick annular system coupled with shape memory alloy and multi-phase nanocomposite face sheets |
| Category: Impact JCR: 3.7          | Physics, chemistry, materials, mechanics, manufacturing     | Review    | Surface and Coatings Technology  | Evolution of solidification and microstructural in laser-clad Ti60  |

Form fields: Name, Phone, String, Submit

<https://retractionwatch.com/?p=123031>

Feet of Clay



# 12a. Some publishers' commercial practices

## Is MDPI a predatory publisher?

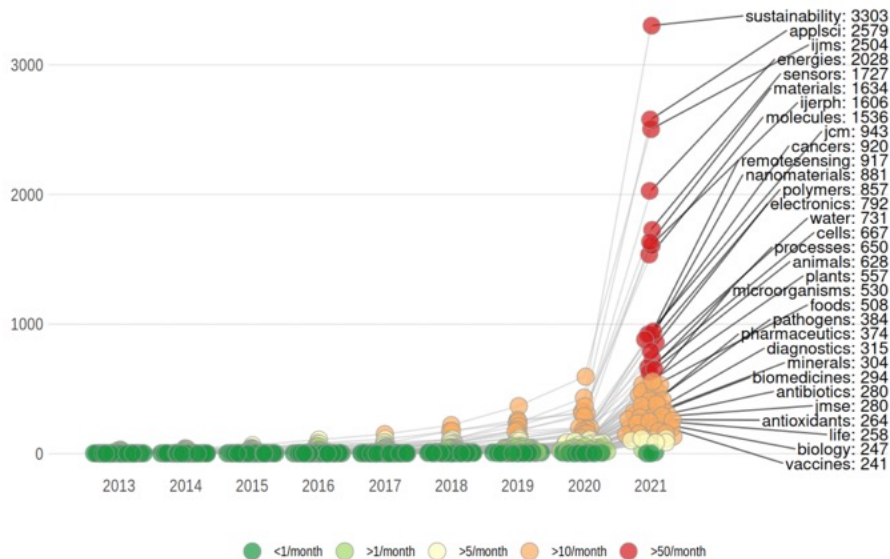
Paolo Crosetto | Uncategorized | April 12, 2021 | 20 Minutes

DR INRAE Grenoble | <https://paolocrosetto.wordpress.com/2021/04/12/is-mdpi-a-predatory-publisher/>

### Special Issues as an economic model

#### Number of Special Issues at MDPI

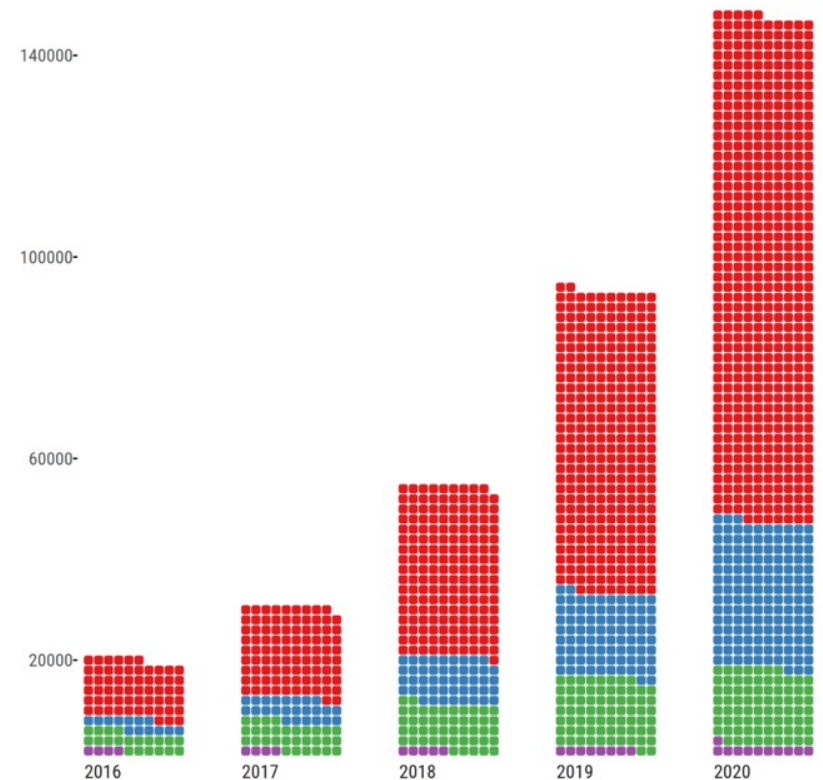
75 journals with an Impact Factor



code @paolocrosetto -- data scraped from MDPI website

#### Articles in Normal, Special Issues, Sections and Collections at MDPI

74 journals with an Impact Factor. One square = 200 articles



Data:MDPI -- code: @paolocrosetto

## 12b. Some publishers' commercial practices



L'organisme français de recherche agronomique et de coopération internationale pour le développement durable des régions tropicales et méditerranéennes.

**Mdpi, produire en masse les articles avec un délai soumis-accepté de quatre semaines (Résumé exécutif)**

Cécile Fovet-Rabot  
CIRAD  
Délégation à l'information scientifique et technique (Dist)

Montpellier, 14 juin 2022

<https://doi.org/10.18167/agritrop/00592>

l'Institut national de recherche pour l'agriculture, l'alimentation et l'environnement **INRAE** DipSO



**Bien choisir sa revue de publication, c'est éviter les éditeurs douteux !**

**Le cas MDPI**  
**Multidisciplinary Digital Publishing Institute**

Cet éditeur de revues en Open Access est aujourd'hui bien établi après avoir créé un large bouquet de revues nouvelles à partir de 2010. Le nombre de publications de chercheurs INRAE dans certaines de ses revues est en constante augmentation. C'est pourquoi il fait l'objet d'une attention particulière.

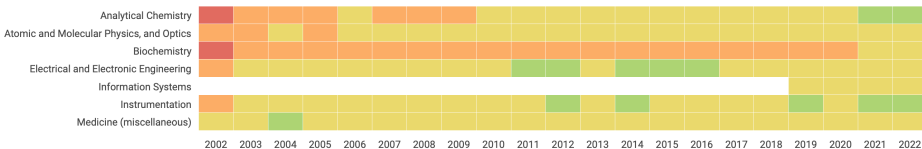
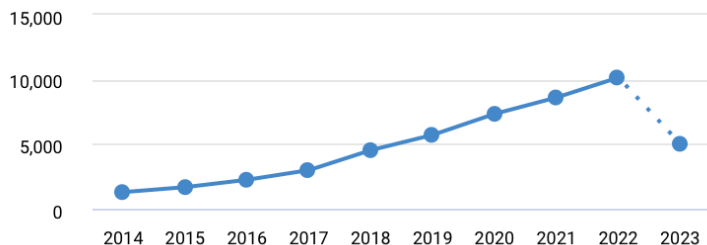
La crédibilité discutable<sup>[3]</sup> accordée à MDPI provient essentiellement des 18 revues de son catalogue dont le facteur d'impact est supérieur à 4. L'éditeur reste connu pour utiliser des méthodes douteuses :

- Sollicitations abusives des chercheurs repérés grâce à des outils d'intelligence artificielle selon leur domaine de compétences ;
- Multiplication des numéros spéciaux chaque année (cf. graphique) pour attirer des auteurs ;
- Création de revues avec des titres similaires à d'autres revues de renom (ex : *Animal* et *Animals*, *Cell* et *Cells*)
- Délais de publication brefs et piètre qualité de la communication vers les auteurs.

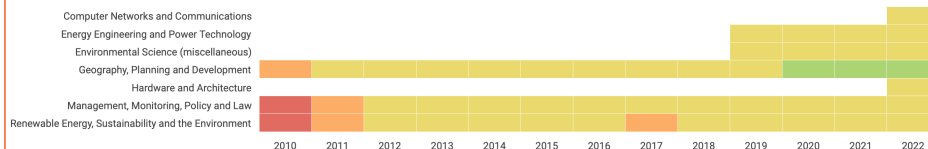
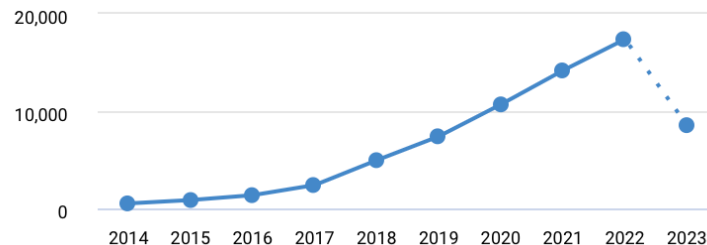
<https://doi.org/10.17180/cdky-p004>

# 12c. Some publishers' aggressive commercial practices

 Sensors (2400 CHF)

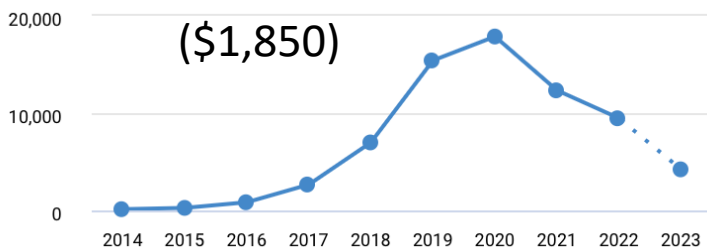


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# 13. Data fabrication in a CNRS lab from France

[https://www.lemonde.fr/sciences/article/2022/12/05/une-affaire-d-inconduite-scientifique-agite-un-laboratoire-de-recherche-en-chimie\\_6153035\\_1650684.html](https://www.lemonde.fr/sciences/article/2022/12/05/une-affaire-d-inconduite-scientifique-agite-un-laboratoire-de-recherche-en-chimie_6153035_1650684.html)

## Le Monde

SCIENCES

### Une affaire d'inconduite scientifique agite un laboratoire de recherche en chimie

Publications trafiquées ou simples erreurs ? Une directrice de recherche d'une unité mixte CNRS-Sorbonne Paris Nord attend le verdict de la procédure disciplinaire. « Le Monde » a enquêté sur cette affaire, qui met aussi à l'épreuve les instances scientifiques.

Par David Larousserie

Publié le 05 décembre 2022 à 15h33 - Lecture 6 min.

Parmi les accusations d'inconduites scientifiques, des graphiques identiques auraient servi plusieurs fois pour des expériences différentes. Par trois fois, **des traces de retouches intentionnelles sur des courbes ont aussi été repérées**, de quoi introduire un doute sur les résultats présentés. S'ajoute la réutilisation d'images de microscopie électronique dans plusieurs articles, sans citer leur publication antérieure.

Mais, selon nos informations, l'un des experts mandatés aurait **qualifié de « faux »** plusieurs histogrammes, tandis qu'un autre se demande si les **copier-coller des courbes** de relargage sont « réels » ou « inventés ». De quoi nuire à la crédibilité du travail. Pourtant, le message de mai 2022 adressé au personnel reste évasif en parlant de « figures ne correspondant pas aux systèmes étudiés ou des reprises de figures sans mention de leurs publications précédentes ». La manipulation de données présumée n'est pas évoquée.



PUBPEER  
The online Journal club

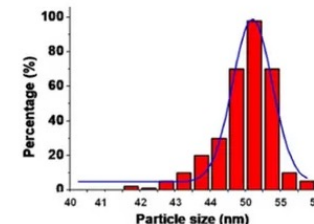
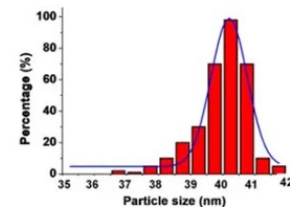
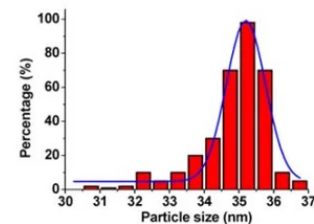
34 results

#1 *Xylocopa viridis* commented August 2022

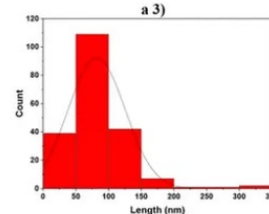
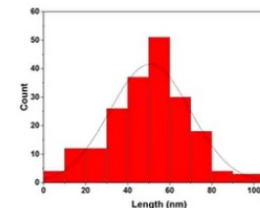
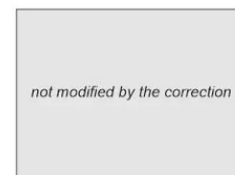
This is a correction to a 2020 article: \*The original version of this article unfortunately contained a mistake: The values of the distribution histogram of the nanoparticle size is 40 nm (Figure 1a2) and 50 nm (Figure 1a3). The correct values are now 50 nm (Figure 1a2) and 75 nm (Figure 1a3).\*

The figure before and after correction is shown below. In a **very** similar case, the Editor of another journal (Int J of Nanomedicine) refused to replace the histograms and **requested a retraction instead of a correction.**

Before correction



After correction



<https://pubpeer.com/publications/C9081BBA3DCD96D61FC7E1C22274FA>

# Consequences: unacceptable pollution!

nature

NEWS | 27 May 2021 | Clarification [28 May 2021](#)

## Hundreds of gibberish papers still lurk in the scientific literature

The nonsensical computer-generated articles, spotted years after the problem was first seen, could lead to a wave of retractions.

[Richard Van Noorden](#)

NEWS | 05 August 2021 | Correction [10 August 2021](#)

## 'Tortured phrases' give away fabricated research papers

Analysis reveals that strange turns of phrase may indicate foul play in science.

[Holly Else](#)

NEWS | 08 November 2021

## Scammers impersonate guest editors to get sham papers published

Hundreds of junk-science papers have been retracted from reputable journals after fraudsters used 'special issues' to manipulate the publication process. And the problem is growing.

[Holly Else](#)

"It is very worrying," says Guillaume Cabanac, a computer scientist at the University of Toulouse in France, who has worked to uncover nonsense science papers in special issues. He adds that it is shocking to see such papers in journals from 'flagship' publishers and that "it is not only predatory journals that publish bullshit".

# Consequences: retractions++

July 19, 2021 Adam Marcus



ELSEVIER

**'Tortured phrases', lost in translation: Sleuths find even more problems at journal that just flagged 400 papers**

August 26, 2021 Ivan Oransky

**Guest editor says journal will retract dozens of inappropriate papers after his email was hacked**

September 22, 2021 Adam Marcus

**"[T]hese shit comments": Author of a nonsense paper responds on PubPeer**


September 28, 2021 Ivan Oransky



**Springer Nature slaps more than 400 papers with expressions of concern all at once**

November 4, 2021 Adam Marcus

**Springer Nature geosciences journal retracts 44 articles filled with gibberish**

Retraction   
Watch

Subscribe!

February 23, 2022 Ivan Oransky

**Publisher retracts 350 papers at once**



Advancing Technology  
for Humanity

# “Sunlight as disinfectant”

The Nature’s 10 list explores **key developments in science** this year and some of the people who played important parts in these milestones. Along with their colleagues, these individuals helped to make **amazing discoveries** and brought attention to **crucial issues**. Nature’s 10 is not an award or a ranking. The selection is compiled by Nature’s editors to highlight key events in science through the compelling stories of those involved.

Feature Nature’s 10

## Guillaume Cabanac Deception sleuth

+dozens of sleuths on PubPeer

This computer scientist helped to uncover a new kind of fabricated paper.

By Diana Kwon

**U**nderground creepy crawly state. Bosom malignancy. Sun oriented force. These might sound like expressions from a work of fiction, but they are actually strange translations, pulled from the scholarly literature, of scientific terms – ant colony, breast cancer and solar energy, respectively. Guillaume Cabanac, a computer scientist at the University of Toulouse, France, spots such bizarre phrases in academic papers every day.



institut  
universitaire  
de France

Research Chair 2022–2027

“Decontaminate the scientific literature”

Feature

# NATURE’S 10

Ten people who helped shape science in 2021.

Winnie Byanyima / Friederike Otto / Zhang Rongqiao /  
Timnit Gebru / Tulio de Oliveira / John Jumper /  
Victoria Tauli-Corpuz / Guillaume Cabanac /  
Meaghan Kall / Janet Woodcock

The Nature’s 10 list explores key developments in science this year and some of the people who played important parts in these milestones. Along with their colleagues, these individuals helped to make amazing discoveries and brought attention to crucial issues. Nature’s 10 is not an award or a ranking. The selection is compiled by Nature’s editors to highlight key events in science through the compelling stories of those involved.

Nature | Vol 600 | 23/30 December 2021 | 591

# Prevention: PubPeer and its browser + Zotero extensions


<https://pubpeer.com>

**PUBPEER**  
The online Journal club

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Home / Search

The PubPeer database contains all articles. Search results return articles with comments.

10.48550/arxiv.2206.07578 

advanced search

To leave the first comment on a specific article, paste a unique identifier such as a **DOI**, **PubMed ID**, or **arXiv ID** into the search bar.

**Login to save this search and receive email alerts**

Search publications for: **e2v-SDE** 1 result

**7 months ago** | **E2V-SDE: From Asynchronous Events to Fast and Continuous Video Reconstruction via Neural Stochastic Differential Equations**  
Jongwan Kim, DongJin Lee, Byunggook Na, Seongsik Park, Jeonghee Jo, Sungroh Yoon

arXiv (2022) 4 comments

## Browser extensions

Most journals are not interested in showing **PubPeer** comments directly on their websites so we have created "browser extensions" to make sure you never miss a **PubPeer** comment. The extension is a few lines of code that check if there are **PubPeer** comments on articles you read and alerts you with a banner in your browser if it finds some. They exist for all major browsers and you can install them here:



## Reference manager extensions

Reference managers are great tools for organizing the literature. We are currently developing extensions that indicate which references in a library contain **PubPeer** comments.





# Prevention: PubPeer and its browser + Zotero extensions

There are 7 articles on this page with PubPeer comments

Wearable IoT Smart-Log Patch: An Edge Computing-Based Bayesian Deep Learning Network System for Multi Access Physical Monitoring System  
A new architecture of Internet of Things and big data ecosystem for secured smart healthcare monitoring and alerting system  
Neural Network Based Brain Tumor Detection Using Wireless Infrared Imaging Sensor  
Developing brain abnormality recognize system using multi-objective pattern producing neural network  
Prostate cancer classification from prostate biomedical data using ant rough set algorithm with radial trained extreme learning neural network  
Cloud based framework for diagnosis of diabetes mellitus using K-means clustering

**RETRACTED ARTICLE:** Maintaining Security and Privacy in Health Care System Using Learning Based Deep-Q-Networks

MDPI Journals Topics Information Author Services Initiatives About Sign In / Sign Up Submit

Search for Articles: Title / Keyword Author / Affiliation / Email Sensors All Article Types Search Advanced

10.3390/s19133030

1 comment on PubPeer (by: Guillaume Cabanac)

Journals / Sensors / Volume 19 / Issue 13 /

**sensors**

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Order Article Reprints

Open Access Article

## Wearable IoT Smart-Log Patch: An Edge Computing-Based Bayesian Deep Learning Network System for Multi Access Physical Monitoring System

by Gunasekaran Manogaran<sup>1,\*</sup>, P. Mohamed Shakeel<sup>2</sup>, H. Fouad<sup>3</sup>, Yunyoung Nam<sup>4,\*</sup>, S. Baskar<sup>5</sup>, Naveen Chilamkurti<sup>6</sup> and Revathi Sundarasekar<sup>7</sup>

- 1 University of California Davis, Davis, CA 95616, USA
- 2 Faculty of Information and Communication Technology, Universiti Teknikal Malaysia Melaka, Durian Tunggal 76100, Melaka, Malaysia
- 3 Biomedical Engineering Department, Faculty of Engineering, Helwan University, Helwan 11792, Egypt
- 4 Department of Computer Science and Engineering, Soonchunhyang University, Asan 31538, Korea
- 5 Department of Electronics and Communication Engineering, Karpagam Academy of Higher Education, Coimbatore, Tamil Nadu 641021, India
- 6 Department of Computer Science and IT, La Trobe University, Melbourne 3086, Australia
- 7 Anna University, Tamil Nadu 600025, India

\* Authors to whom correspondence should be addressed.

Sensors 2019, 19(13), 3030; <https://doi.org/10.3390/s19133030>

1 comment on PubPeer (by: Guillaume Cabanac)

Received: 28 May 2019 / Revised: 26 June 2019 / Accepted: 1 July 2019 / Published: 9 July 2019



This article cites references that were questioned or **retracted** even.

One needs to gain awareness to better appreciate the contribution.

# Prevention: Reduce fraud incentives



Web of Science



Highly Cited Researcher

our 2023 list, recognizing 6,849 individuals from more than 1,300 institutions across 67 countries and regions.

Research

universit  de BORDEAUX

News

Three scientists from the Bordeaux campus among the most cited researchers in the world

Updated on: 18/11/2022

<https://www.u-bordeaux.fr/en/news/three-scientists-bordeaux-campus-among-most-cited-researchers-world>

3 Evaluation - Continuous

- Extreme levels of hyper-authorship
- Papers with anomalous levels of self-citation - normalized by field
- Papers which demonstrate unusual collaborative group co-citation activity
- Papers with anomalous levels of citations from co-authors
- Papers with signs of publishing anomalies incl. , plagiarism, tortured phrases, spurious references and more

By implementing an increasing number of qualitative criteria and markers this year, the number of preliminary candidates excluded from our final list increased from 500 in 2022 to more than 1,000 for 2023.



New in 2023

<https://clarivate.com/blog/highly-cited-researchers-2023-the-evolution-of-our-evaluation-and-selection-policy-to-support-a-robust-scholarly-landscape/>

# Prevention: Strengthen gatekeeping

## Enhance the filters ahead of publication

The publishing industry uses **tortured phrases** as **negative signals**

### STM Integrity Hub

A New, Unified Approach to Safeguard Research Integrity

Safeguarding research integrity can only be done through collaboration with all stakeholders in the scholarly ecosystem. STM Solutions worked with several **research integrity specialists** and organizations for this release, including PubPeer, Clear Skies, **Elisabeth Bik** and Guillaume Cabanac (pro bono). The STM Integrity Hub hopes to deepen and extend its collaboration with research integrity specialists and organizations going forward.

[ NEWS ] OCTOBER 23, 2023

## Morressier teams up with academic fraud sleuths to bring tortured-phrase detection to publishing workflows

These three researchers founded the *Problematic Paper Screener*, a platform that flags questionable articles in the scientific literature. It leverages a daily maintained public database of 'fingerprint' phrases that can be used to identify potentially problematic submissions. Morressier now uses this data to check submissions via its workflows, flagging potentially problematic content early for editors.

<https://www.morressier.com/post/morressier-teams-up-with-academic-fraud-sleuths-to-bring-tortured-phrase-detection-to-publishing-workflows>

### STM Solutions releases MVP of new paper mill detection tool

News Announcement, Research Integrity  
April 13, 2023

<https://www.stm-assoc.org/papermillchecker/>



Association for  
Computing Machinery



that had already been published in a paginated volume. In parallel with the journal's own investigation, papers from these six VSIs were flagged by Guillaume Cabanac, Cyril Labbé and Alexander Magazinov [1] as part of their work in **identifying problematic papers and making the community aware of them**. This work by Dr Cabanac and colleagues has informed the journal's investigations. To date, the investigation has resulted in the **decision to retract** a first batch of 101 papers from the journal. The retraction process is expected to be completed in the coming weeks. The rest of the papers in question are under investigation by the EiC and publisher's ethical team. The configuration of the online



April 2023, <https://doi.org/10.1016/j.micpro.2022.104754>

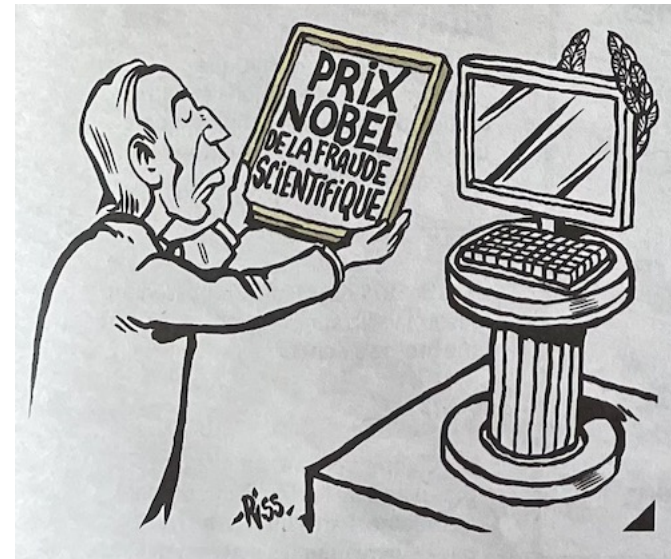
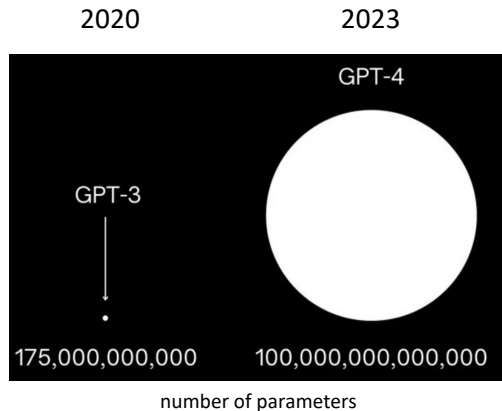
**CLEAR SKIES**

THE PAPERMILL ALARM



River Valley

# The 2023 big wave: ChatGPT-powered misconduct



8 FÉVRIER 2023 / N°1594 CHARLIE HEBDO 15

EDITORIAL | 24 January 2023

nature

## Tools such as ChatGPT threaten transparent science; here are our ground rules for their use

As researchers dive into the brave new world of advanced AI chatbots, publishers need to acknowledge their legitimate uses and lay down clear guidelines to avoid abuse.

# We must decontaminate the scientific literature



- Actors:** Scammers acting as wannabe scientists  
Gatekeepers failing to enforce peer review  
Publishers not monitoring their products  
Policy makers promoting Publish or Perish
- Motive:** Promotion, recognition, symbolic capital
- Modus operandi:** Plagiarism, journal hijacking, buying of citations



<https://fr.wikipedia.org/wiki/Dépollution>

Volunteers decontaminating a beach after the *Prestige* spillover of 2002.

- Consequences:** Pollution of the literature  
Erosion of the trust society places in science
- Detectives:** Professional and scientists and hobbyists  
Volunteers contributing *pro bono*

- Aim:** **Curative** → decontaminate the literature  
**Preventive** → anticipate new manipulations

- Means:** Decentralised re-assessment supported by the *Problematic Paper Screener*  
AI to detect errors, paraphrasing,  
data fabrication

# Misconduct and the correction of science

## Conferences

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## Articles

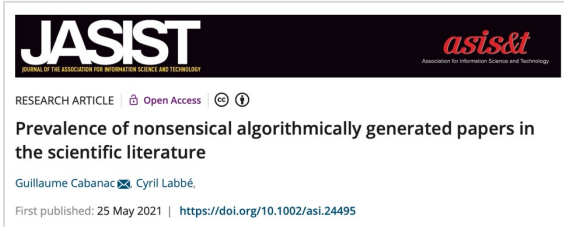
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- Cabanac, G. ([2022](#)). Decontamination of the scientific literature. *arXiv:2210.15912*
- Cabanac, G. ([2021](#)). This digital-hygiene routine will protect your scholarship [World View]. *Nature*, 598(7882), 541. [adaptation [en français](#) pour l'HCERES-Ofis]



# Appendix

# Screening the literature for tortured phrases

Fingerprint-based method:



Fingerprints used by the Problematic Paper Screener

| Fingerprint | Tortured Phrase                    | Expected Phrase         |
|-------------|------------------------------------|-------------------------|
| 1           | counterfeit consciousness          | artificial intelligence |
| 2           | man-made brainpower                | artificial intelligence |
| 3           | hereditary calculation             | genetic algorithm       |
| ...         |                                    |                         |
| 46          | <b>innocent</b> Bayes              | naive Bayes             |
| 47          | mean square <b>mistake/blunder</b> | mean square error       |
| 48          | calculated relapse                 | logistic regression     |
| 49          | <b>flag to commotion</b>           | signal to noise         |
| 50          | <b>p-esteem</b>                    | p-value                 |
| ...         |                                    |                         |
| 4088        | bosom malignancy                   | breast cancer           |
| 4089        | kidney <b>disappointment</b>       | kidney failure          |
| 4090        | Protein/mRNA <b>articulation</b>   | Protein/mRNA expression |



```
search publications in full_data for "{fingerprint-query}"
where year >= 2005
and type in [ "article", "chapter", "preprint", "proceeding" ]
return publications [id + year + type + doi + title + journal + proceedings_title+
publisher + book_title + times_cited + altmetric]

limit 1000
```

