*IV Reunión Científica de GUAIX*

# La Ética en la Ciencia

M.A. Gómez Flechoso

17 diciembre 2025

# Reglas éticas básicas

- **Los científicos *no deben apropiarse del trabajo realizado por otros investigadores*: deben reconocer el papel de todos los participantes en la investigación y no deben plagiar resultados obtenidos en otros estudios sin atribuir correctamente la autoría**

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- **Los investigadores deben informar a sus colaboradores de los riesgos de la investigación y solo llevarla a cabo con su consentimiento.**
- **Los científicos que trabajen con animales vivos deben tratarlos con respecto: satisfaciendo sus necesidades y tratando de evitarles daños.**
- **Los científicos que realizan esudios con humanos deben informarles de los riesgos y estos tienen derecho a oponerse a participar en la investigación.**

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## GuttenPlag - collaborative documentation of plagiarism

Diese Seite auf Deutsch

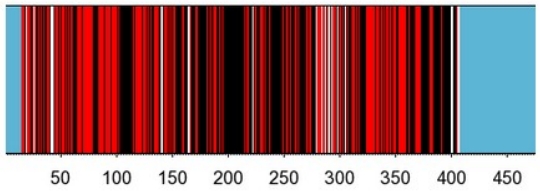
**A critical examination of the doctoral dissertation of Karl-Theodor Freiherr zu Guttenberg:**

*Verfassung und Ver… …en USA und der EU*
*(Constitution and Constitutional Treaty: Constitutional developments in the USA and EU)*

Grimme Online Award

**Grimme Online Award Winner 2011, Category "Special"**

1218 Plagiatsfragmente aus 135 Quellen
auf 371 von 393 Seiten (94.4%)
in 10421 plagiierten Zeilen (63.8%)




Stand: 03.04.2011 11:55 Uhr

- Seiten, auf denen Plagiate gefunden wurden
- Seiten mit Plagiaten aus mehreren Quellen
- Seiten, auf denen bisher keine Plagiate gefunden wurden
- Das Inhaltsverzeichnis (Seiten 1-14) und die Anhänge (ab Seite 408) wurden nicht bei der Berechnung des Prozentualwertes mit einbezogen

**Dokumentation**

- About
- Overview of plagiarism cases
- Annotated dissertation
- News
- Interim reports

**Figure legend**

**Top**

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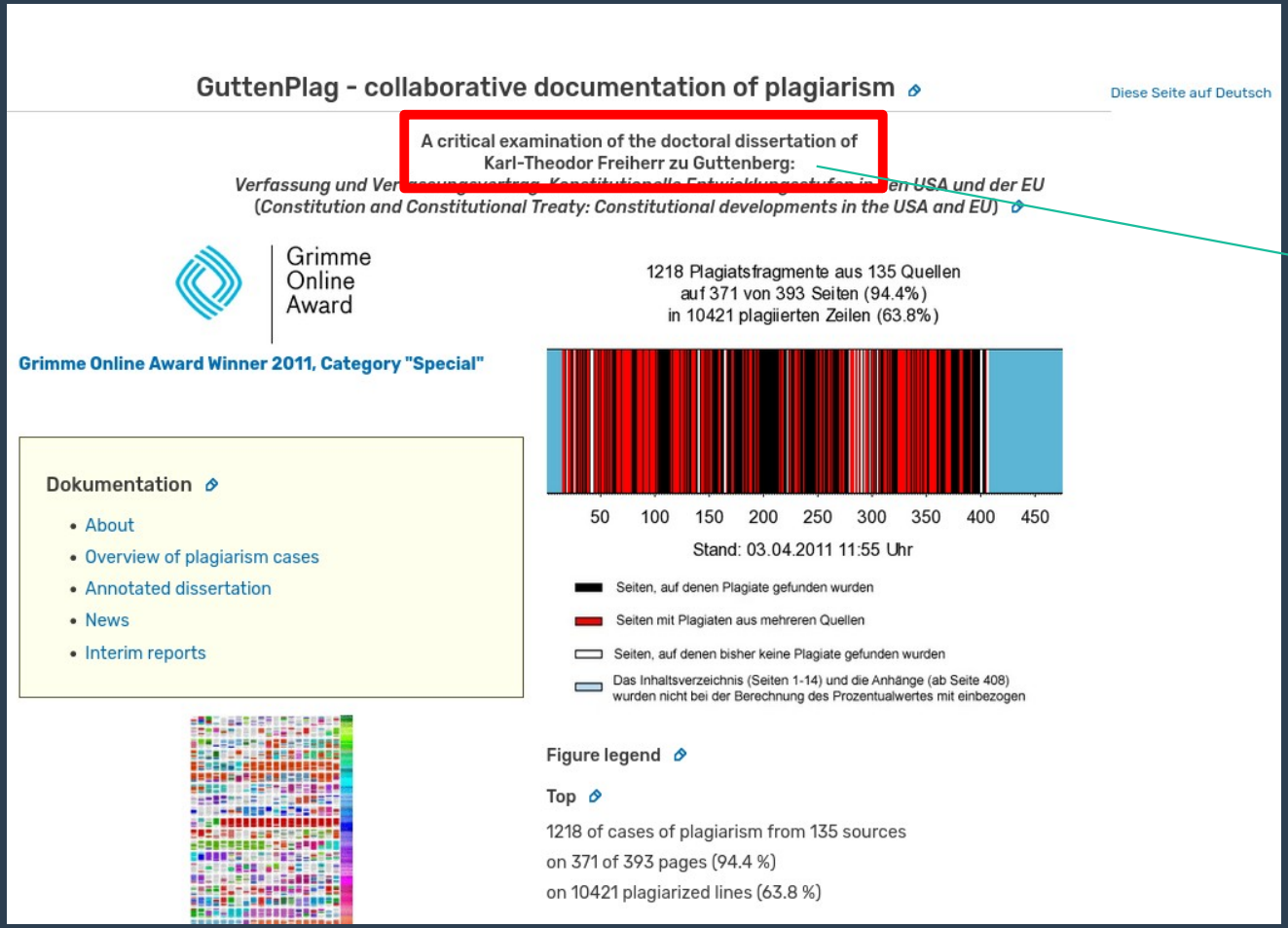


Karl-Theodor Freiherr zu Guttenberg: ministro de defensa aleman (2009-2011)

Plagio

SCIENTIFIC ETHICS >

# Springer Nature retracts 75 studies by Spanish rector and his collaborators for fraudulent practices

The publisher's decision to withdraw the articles by Juan Manuel Corchado is the biggest scandal to hit Spanish scientists

Science

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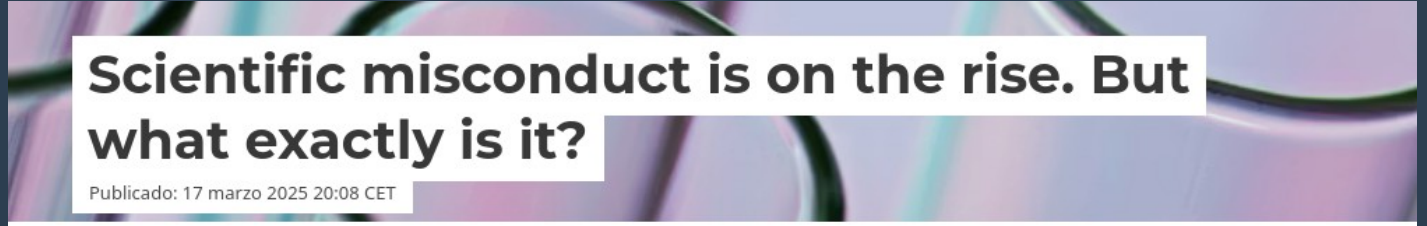
Citaciones fraudulentas

# Scientific misconduct is on the rise. But what exactly is it?

Publicado: 17 marzo 2025 20:08 CET



PowerUp/Shutterstock

German anaesthesiologist Joachim Boldt has an unfortunate claim to fame. According to Retraction Watch, a public database of research retractions, he is the most retracted scientist of all time. To date, 220 of his roughly 400 published research papers have been retracted by academic journals.

Boldt may be a world leader, but he has plenty of competition. In 2023, more than 10,000 research papers were retracted globally – more than any previous year on record. According to a recent investigation by Nature, a disproportionate number of retracted papers over the past ten years have been written by authors affiliated with several hospitals, universities and research institutes in Asia.

Academic journals retract papers when they are concerned that the published data is faked, altered, or not "reproducible" (meaning it would yield the same results if analysed again).

Some errors are honest mistakes. However, the majority of retractions are associated with scientific misconduct.

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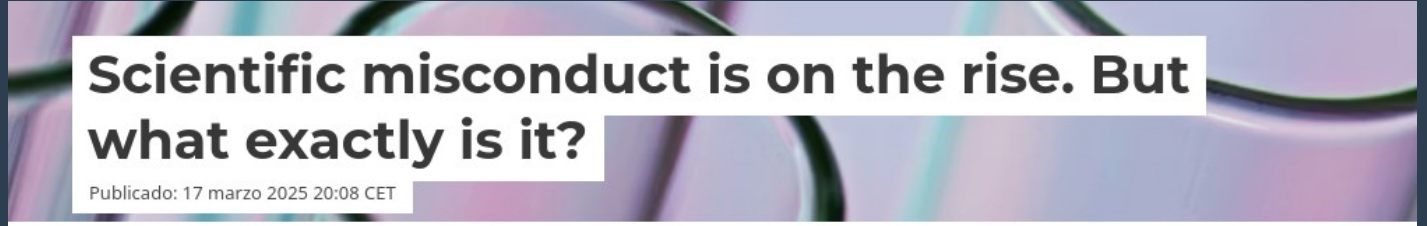

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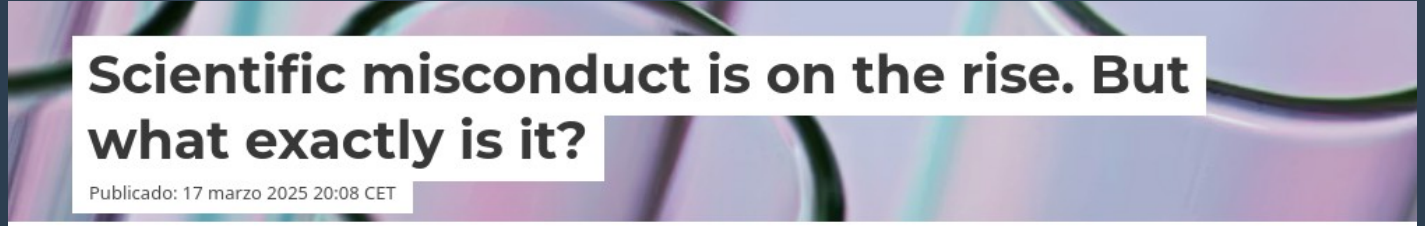

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Datos maquillados/inventados

NEWS FEATURE | 08 March 2024

# Superconductivity scandal: the inside story of deception in a rising star's physics lab

**Ranga Dias claimed to have discovered the first room-temperature superconductors, but the work was later retracted. An investigation by *Nature*'s news team reveals new details about what happened — and how institutions missed red flags.**

By Dan Garisto

But Dias is now infamous for the scandal that surrounds his work. *Nature* has since retracted his second paper[2] and many other research groups have tried and failed to replicate Dias's superconductivity results. Some researchers say the debacle has caused serious harm. The scandal "has damaged careers of young scientists — either in the field, or thinking to go into the field", says Paul Canfield, a physicist at Iowa State University in Ames.

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Why a blockbuster superconductivity claim met a wall of scepticism

Previous reporting by *The Wall Street Journal*, *Science* and *Nature*'s news team has documented allegations that Dias manipulated data, plagiarized substantial portions of his thesis and attempted to obstruct the investigation of another paper by fabricating data.

Three previous investigations into Dias's superconductivity work by the University of Rochester did not find evidence of misconduct. But last summer, the university launched a fourth investigation, led by experts external to the university. In August 2023, Dias was stripped of his students and laboratories. That fourth investigation is now complete and, according to a university spokesperson, the external experts confirmed that there were "data reliability concerns" in Dias's papers.

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## Honest mistakes

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For example, Sergio Gonzalez, a young scientist at the Institute for Neurosciences of Montpellier in France, mistakenly uploaded several wrong images to an academic paper and its supplementary material. This didn't have any effect on the findings of the paper, which were based on the correct images.

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Errores

Article

# Satellite megaconstellations will threaten space-based astronomy

https://doi.org/10.1038/s41586-025-09759-5

Received: 9 April 2025

Accepted: 7 October 2025

Published online: 3 December 2025

Open access

Check for updates

Alejandro S. Borlaff[1,2] ✉, Pamela M. Marcum[1] & Steve B. Howell[1]

Rapidly growing satellite constellations have raised strong concerns among the scientific community[1–4]. Reflections from satellites can be visible to the unaided eye and extremely bright for professional telescopes. These trails already affect astronomical images across the complete electromagnetic spectrum, with a noticeable cost for operations and mitigation efforts. Contrary to popular perception, satellite trails affect not only ground-based observatories but also space observatories such as the Hubble Space Telescope[5]. However, the current number of satellites is only a fraction (less than 3%) of those to be launched in the next decade. Here we show a forecast of the satellite trail contamination levels for a series of international low-Earth-orbit telescopes on the basis of the proposed telecommunication industry constellations. Our results show that if these constellations are completed, one-third of the images of the Hubble Space Telescope will be contaminated, while the SPHEREx (Spectro-Photometer for the History of the Universe, Epoch of Reionization and Ices Explorer), ARRAKIHS (Analysis of Resolved Remnants of Accreted galaxies as a Key Instrument for Halo Surveys) and Xuntian space telescopes will have more than 96% of their exposures affected, with $5.6^{+0.3}_{-0.3}$, $69^{+21}_{-22}$ and $92^{+11}_{-10}$ trails per exposure, respectively, with an average surface brightness of $\mu = 19 \pm 2$ mag arcsec$^{-2}$. Our results demonstrate that light contamination is a growing threat for space telescope operations. We propose a series of actions to minimize the impact of satellite constellations, allowing researchers to predict, model and correct unwanted satellite light pollution from science observations.

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Sesgo de confirmación → Publicación de datos erróneos de forma deliberada

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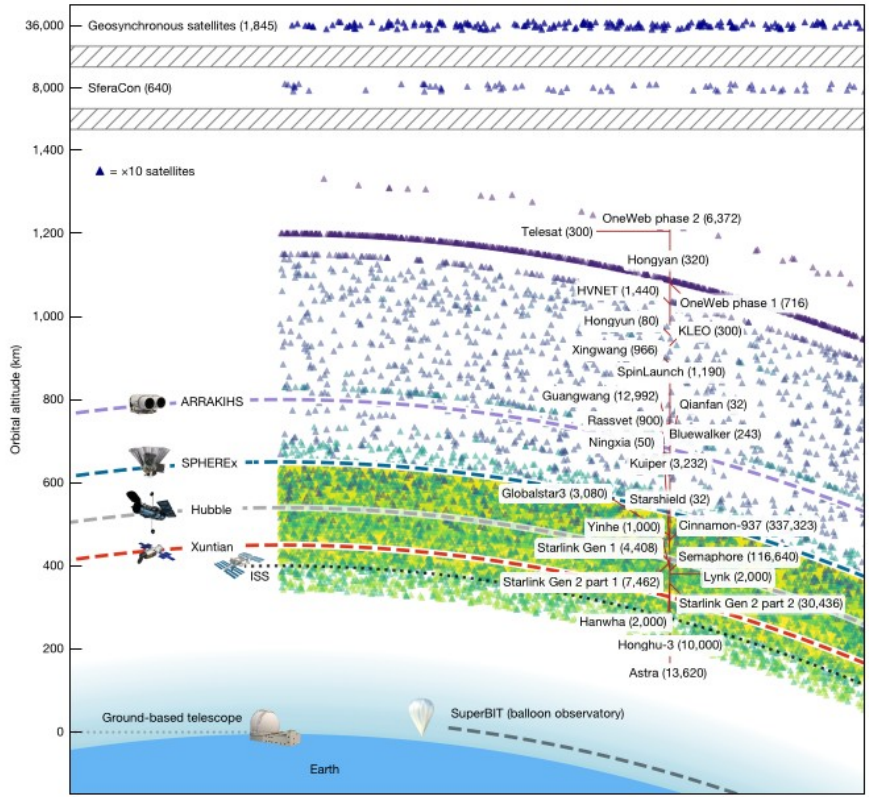


**Fig. 1 | Structure of proposed satellite telecommunication constellations in LEO, as registered in June 2025.** The altitude of satellites is compared to the orbits of the Hubble Space Telescope, the Xuntian Space Telescope (Chinese Space Station Telescope), SPHEREx and the proposed ARRAKIHS mission (Table 1). Constellation labels show the number of proposed satellites. Each symbol represents ten satellites.

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# ARRAKIHS affair

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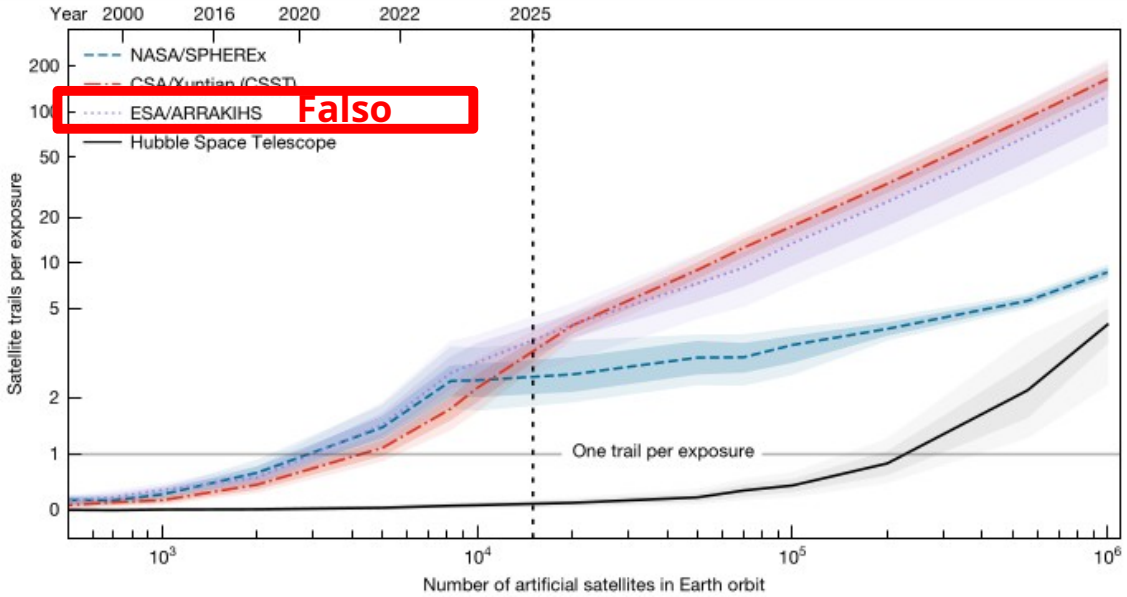


**Fig. 3 | Mean number of satellite trails per exposure as a function of the population of artificial satellites in Earth orbit.** The average number of satellite trails visible in each exposure is shown in relation to both the number of artificial satellites orbiting Earth (lower *x* axis) and epoch (upper *x* axis). Blue, SPHEREx; red, Xuntian; purple, ARRAKIHS; black, Hubble Space Telescope. Contours represent the 95% confidence levels for the mean number of trails. Horizontal solid line indicates one trail per exposure critical contamination level; vertical dotted line marks the current number of active and inactive satellites in orbit (15,000 as of March 2025).

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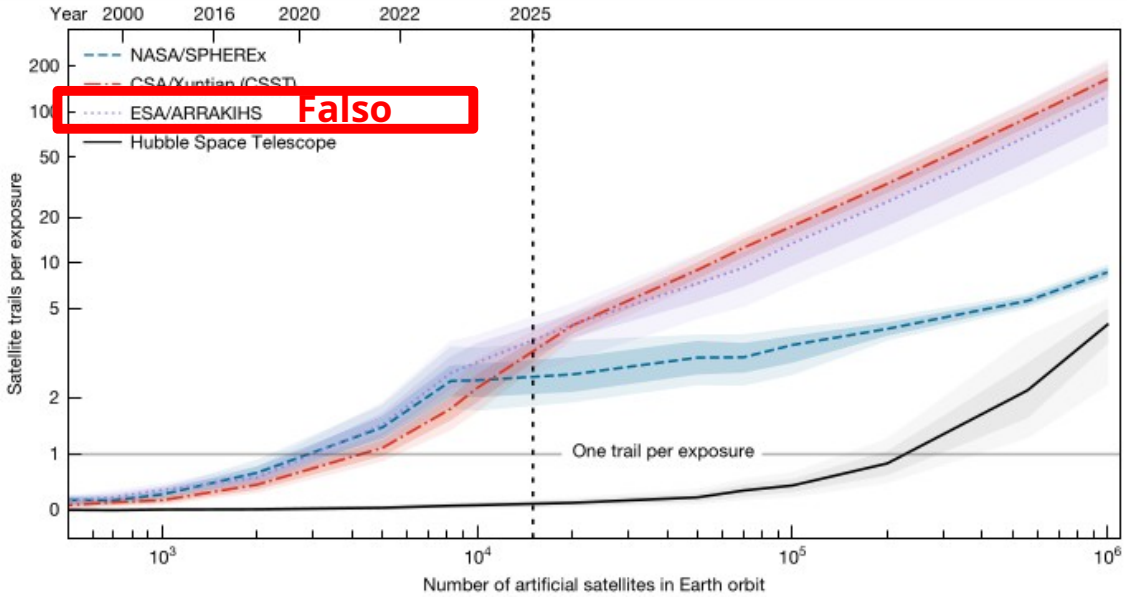


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El área del FoV afectada en cada imagen será del 0.6% (3 trazas) en el caso de 560.000 satélites (en lugar del 12.2% presentado en el artículo, 69 trazas), y del 0.93% (5 trazas) en el peor escenario, con un millón de satélites (en lugar del 22.3%, 127 trazas)

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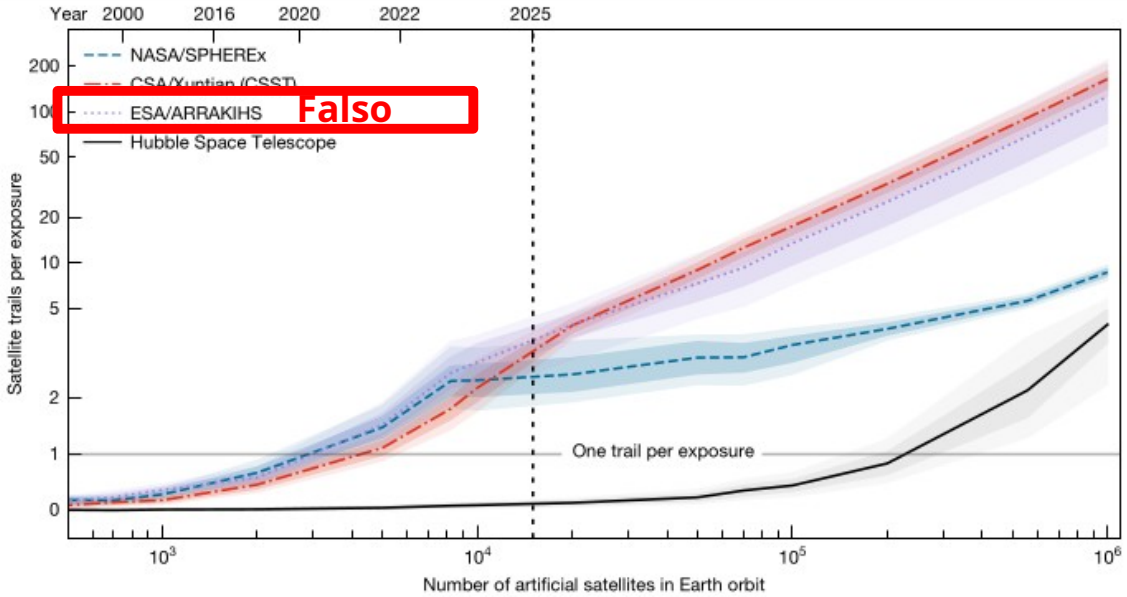


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Se informó a los autores del error en la publicación: **decidieron no actuar porque querían mandar un mensaje sobre el problema de las megacostelaciones**

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# Origen del problema

The "publish or perish" culture within academia fuels scientific misconduct. It puts pressure on academics to meet publication quotas. It also rewards them for greater research output, in the form of promotions, funding and recognition. And this can mean research quality is sacrificed for quantity.

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Pero, además...

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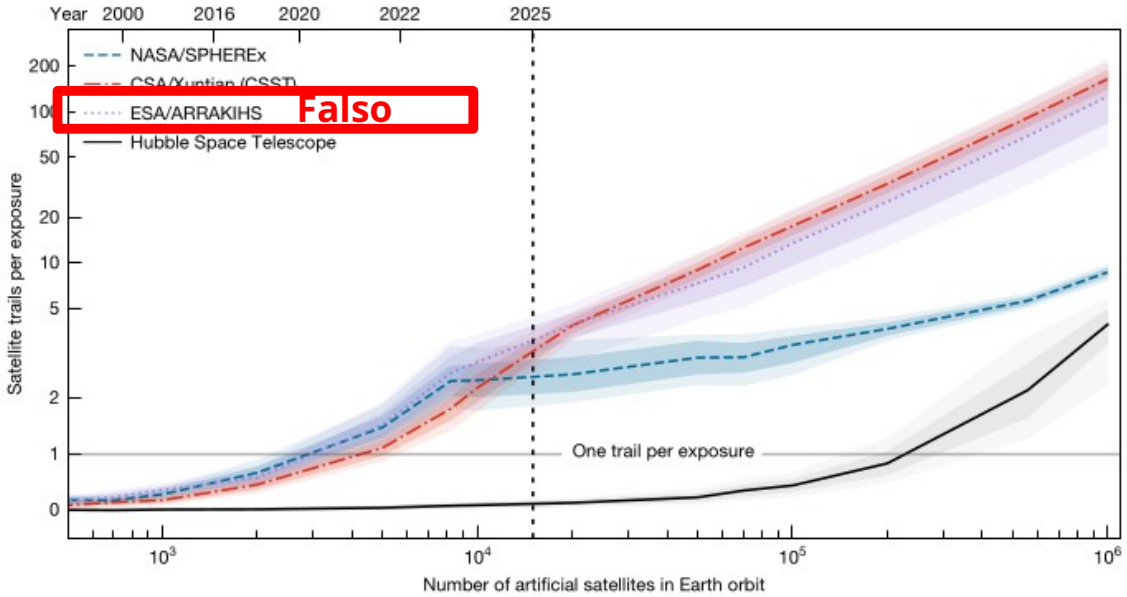


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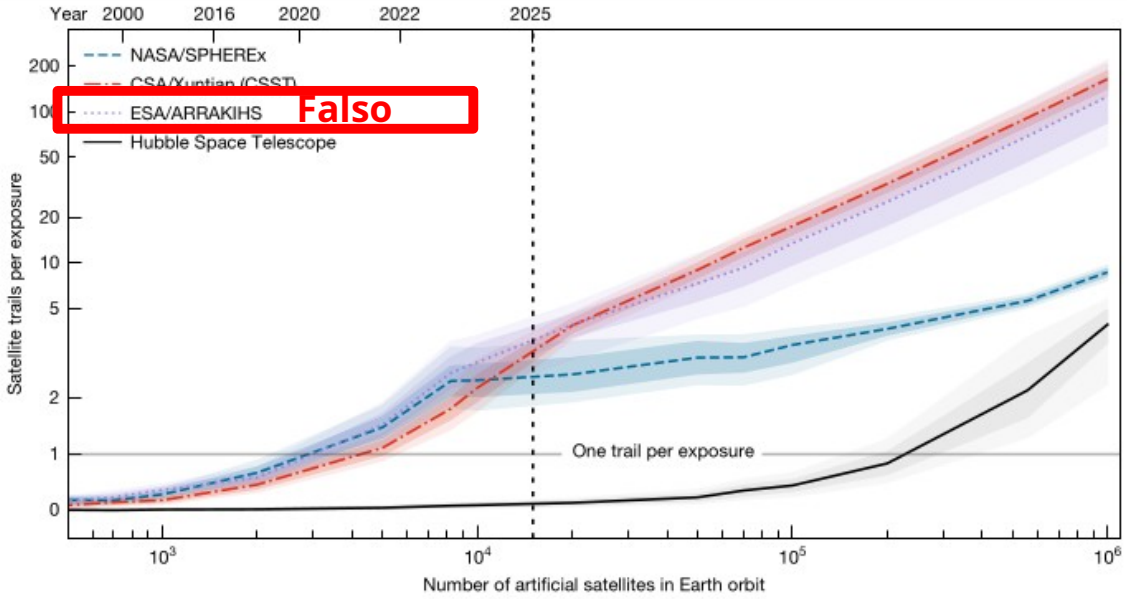


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