The Two Theories That Stumble Physics

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May 5, 2025

Abstract

Physics relies on quantum mechanics and relativity, two foundational theories shaping modern worldview. Historical critiques have questioned their validity, revealing persistent physical and mathematical flaws that challenge their scientific integrity, e.g. ref.[5] as well is this author's various publications, e.g.[4,7] This study addresses the core inconsistencies undermining these theories and their broader implications for science. Like a mislabeled product, QM and relativity mislead science, wasting resources. Here we show that quantum mechanics' foundational equation is mathematically invalid, nullifying its key concepts, while relativity's foundation contradicts basic physical principles.[4] Unlike previous views accepting these theories despite what is perceived as counterintuitive but true aspects, our findings unequivocally demonstrate that their mathematical and logical errors render them untenable, invalidating applications like quantum computing. This advances understanding by exposing a pattern of overlooked inconsistencies in physics. For policymakers and scientists, these results highlight the need to prioritize rigorous physical and mathematical foundations over established narratives, ensuring scientific progress and public funding align with truth. By revealing these flaws, this work, a sequel to a critique submitted to the US Congress,[4] urges a reevaluation of physics' core theories and their public support to foster reliable innovation. The US Congress must institute "an additional layer of accountability" (Former Rep. Lamar Smith) for scrutinizing physics funding to avoid supporting invalid theories.

It is undeniable that the theory of relativity is internally contradictory[4] (cf. also earlier attempts;[1–3] these attempts were unsuccessful because they focused on criticizing the internal framework of the Lorentz transformations, which is impossible). Suffice it to observe that relativity derives velocity and acceleration as

$$u' = \frac{u - v}{1 - \frac{vu}{c^2}}, \quad a' = \frac{a}{\gamma^3 \left(1 - \frac{uv}{c^2}\right)^3}, \quad \gamma = \frac{1}{\sqrt{1 - \frac{v^2}{c^2}}}, \tag{1}$$

not only inappropriately introducing variables external to frame k: u, a from frame K, and relative velocity v. It is gravely inconsistent to propose the redefinition of incontrovertible fundamental physical principles—basic definitions in physics. Furthermore, the theory of relativity requires us to consider these incorrect definitions as valid alongside the correct ones: $u' = \frac{dx'}{dt'}$, $a' = \frac{du'}{dt'}$. Consequently, relativity must be excluded from physics as a theory because its internal contradictions cannot be resolved logically or in any other way.

No experimental result, such as the trivial GPS corrections, which have nothing to do with relativity,[4] can correct the logical contradiction in relativity's kinematic definitions. Such attempts at empirical adjustments only mask the theory's flaws.

Instead, contemporary science requests from those who want to pass as proper academic scientists that they be blind to even the most blatant errors, convinced that this is how science works. If the science says that $1 = 2$ is a true equality, you must agree, adopting the view that it may be counterintuitive, but this is why it is so elevated and elegant because it re-defines "=" to mean "≠". Thus, "Einstein must be wrong, in order to be right", according to a faculty at Columbia University. Think differently, let alone coherently? Then, academia marginalizes your dissent.

Nevertheless, the world should consider itself lucky to have escaped technological material damage, while at the same time having been severely misguided by relativity's inconsistencies, because relativity has no real connection to any technology. Unfortunately, the other scientific obstacle that has also misled scientific understanding, quantum mechanics (QM), is being widely promoted as a practical tool, even though it is fully admitted that it makes no sense.

Regarding quantum mechanics, the first to expose the inchoate physical inconsistency of quantum mechanics is C. I. Noninski,[5] who shows that Max Planck's founding paper[6] fails to derive the blackbody formula, and therefore Planck has no grounds to propose his $\varepsilon = h\nu$

quantum postulate. This author has shown that the derivation failure of ref.[6] has its roots even earlier and the point where C. I. Noninski begins his analysis cannot even be reached.[7] Unlike relativity, which is useless in its entirety, there is hope for the quantum idea, even though quantum mechanics is a failed theory. C. I. Noninski[5] has presented a classical derivation of the blackbody radiation formula, after arriving at discrete portions $\Delta\varepsilon$ of exchanging energy (heat)—classical quanta—based on the Boltzmann distribution calculating the number of atoms $N \exp^{\frac{\hbar\nu}{kT}}$ possessing energy $\hbar\nu$ (note the $\hbar$, not h). Detailed discussion of the above is done elsewhere.

Since quantum mechanics' hermeticity is considered a feature, treating it only as a useful empirical engineering tool, it is interesting that it cannot serve as such, as well, because its mathematical framework is also inconsistent. Having already devoted ample attention to relativity and thoroughly debunked it to the core by showing its internal contradictions in the very pages of its founding paper from 1905,[4] this study will focus on the inconsistencies and imagined practical aspects of quantum mechanics (QM).

This is demonstrated at once with the failure of the foundational position eigenfunction equation in position space $\hat{x}\psi_x(x) = a\psi_x(x) \Rightarrow x\psi_x(x) = a\psi_x(x)$, with posited delta function $\delta(x-a)$ in the stead of the eigenfunction $\psi_x(x)$: $x\delta(x-a) = a\delta(x-a)$, showing that it is mathematically inconsistent.

• $x\delta(x-a) = a\delta(x-a)$ is undefined pointwise since $\delta(x-a)$ makes sense only under the integral.

• It is tautological under integrals:
$\int_{-\infty}^{+\infty} x\delta(x-a)\,dx = \int_{-\infty}^{+\infty} a\delta(x-a)\,dx \Rightarrow a = a$,

and

• tampered with by test functions:
$\int_{-\infty}^{+\infty} x\delta(x-a)f(x)\,dx = af(a) = a\int_{-\infty}^{+\infty} \delta(x-a)f(x)\,dx$. QM's math is a puzzle piece that doesn't fit, and it relies on inconsistent mathematical adjustments. A valid mathematical theory must not alter the structure of an equation to enforce consistency.

The above argument is systematized in Fig.1.

Three-Level Collapse of QM's Eigenfunction Equation

Level 1: Undefined Pointwise

$x\delta(x-a) = a\delta(x-a)$

Invalid outside integrals due to delta function's undefined pointwise behavior

Level 2: Tautological Under Integrals

$\int_{-\infty}^{+\infty} x\delta(x-a)\,dx = \int_{-\infty}^{+\infty} a\delta(x-a)\,dx \Rightarrow a = a$

Trivial identity, provides no new information

Level 3: Tampered with Using Test Functions

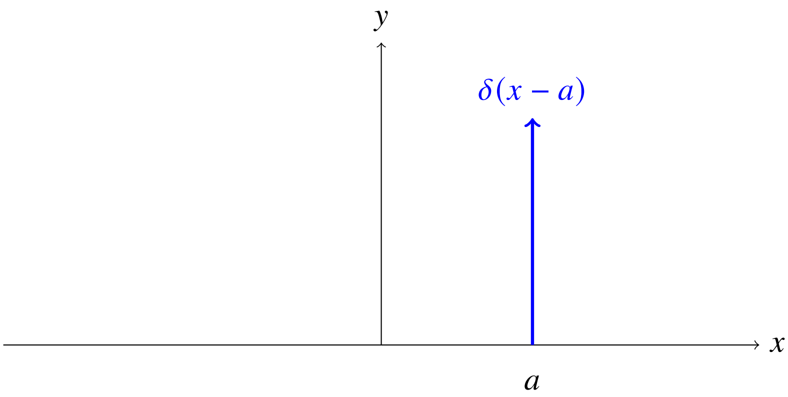
$\int_{-\infty}^{+\infty} x\delta(x-a)f(x)\,dx = af(a) = a\int_{-\infty}^{+\infty} \delta(x-a)f(x)\,dx$

Requires test functions, altering equation structure

Fig 1: The three-level collapse of quantum mechanics' position eigenfunction equation, $x\delta(x-a) = a\delta(x-a)$, demonstrates its mathematical inconsistency—undefined pointwise, tautological under integrals, and reliant on test functions—rendering the $L^2(\mathbb{R})$ framework (explained below) and quantum computing fundamentally flawed, akin to proving $1 = 2$.

This example applies to all eigenfunction equations in QM, making QM inconsistent as a theory in physics.

Figure 2 is a heuristic device to illustrate $\delta(x-a)$ in pedagogy.



$\delta(x-a)$: Defined only under integrals.
$x\delta(x-a)$: Undefined pointwise.

Figure 2: The delta function in QM's position eigenfunction equation is mathematically inconsistent: undefined pointwise, tautological under integrals, and reliant on inconsistent adjustments with test functions, rendering $L^2(\mathbb{R})$-based QM invalid.

Some are inclined to point out its infinitely slim and infinitely tall character, leading to the impossible equality $0 \cdot \infty = 1$ since Lebesgue theory of integration requires $0 \cdot \infty = 0$. This is only heuristically so, given the fact that $\delta(x-a)$ is a distribution, not a classical point-by-point function. It is the above bullet points that actually show rigorously, not heuristically, that $\delta(x-a)$ makes no sense. Therefore, $\delta(x-a)$ should be excluded from the education, to say nothing of research and a foundation of a new world, opening a way "to understand the true nature of the universe",[8] no matter how beautiful it may appear to some. Truth is beautiful, not confusion, such as $\delta(x-a)$, about truth.

Experimental successes in QM, like the double-slit experiment, rely on empirical fitting, not the validity of its mathematically inconsistent eigenfunction equations. More thorough analysis, such as the one by C. I. Noninski[5] reveals the failure of the empirical fitting when it comes to the blackbody radiation formula and uncovers the deeper connection to classical physics. Couder's experiments[9] are an illustration of the fact that all alleged QM effects, such as the double slit experiment, are in fact an expression of the macro-world of classical physics.

The usual way to imply that these formulae are quantum-mechanical is to state that they are defined over a so-called square-integrable ($L^2(\mathbb{R})$) infinite dimensional Hilbert vector space, whereby the inner product of its vectors is finite. We are using, for simplicity, just the notation $L^2(\mathbb{R})$ symbolizing the infinite Hilbert space defining quantum mechanics in order to indicate that we mean QM, as opposed to the finite Hilbert space $\mathbb{C}^2$, which the purported quantum computers are based on.

The opening bullet points render the world of the $L^2(\mathbb{R})$ inconsistent, which implies that the "holy triad" of the quantum computing—superposition, entanglement and interference—has no grounds. This is a crucial fact. No fancy math or elaborate experiments can remove it. It haunts every claim for something being quantum mechanical.

This spreads over all eigenfunction equations in continuous-space quantum mechanics—they rely on this distributional scaffolding, which is mathematically fragile and physically dubious if we press too hard. *The entire $L^2(\mathbb{R})$ quantum mechanics edifice has this hidden inconsistency.*

Unfortunately, however, the simplest Hilbert space world, which is of finite dimensions, denoted by $\mathbb{C}^2$, is detached from the $L^2(\mathbb{R})$ and the failure of the latter does not cause a visible collapse of the former. The world would have been a better, rational place had that been the case. Alas, the linear algebra that is used to characterize $\mathbb{C}^2$ always works, it's just standard mathematics, but that fact, valid even if no QM were to have appeared, is used as a trump to claim magical, albeit unsustainable, things. But this is how the world is made to think. Even something seemingly mathematical, even if it doesn't make mathematical sense, and which flounders under the weight of its own inconsistency, is endowed with physical meaning—by, say, using it to describe position, or momentum of a particle, which are physical, not mathematical quantities—what remains for the perfectly reasonable linear algebra? Things are even easier with it, if you are inclined to build air castles, no matter what. So, stay within linear algebra, try to avoid the headache of non-mathematical extensions such as the distributional delta construct, attempting to tackle $L^2(\mathbb{R})$, and you'll be on a safe territory mathematically, ready to enjoy the benefits of a first-class innovator—who cares about physics and the purported superposition, entanglement and interference arriving from $L^2(\mathbb{R})$, which, as we saw, failed. Superposition, entanglement and interference don't exist due to the failed $L^2(\mathbb{R})$ but they can be simulated on the $\mathbb{C}^2$ finite manifold via the stable machinery of linear algebra and, Voila!, we have a simple but fascinating quantum world, which is not quantum at all but looks like it. Illusory it may be, but it appears to work.

This poses a great opportunity for those who like to present quantum mechanics as a viable framework and is a great setback to the rest of the world. Qubit-like algorithms can always be fabricated on a classical computer and shown to the grant givers as proof of concept of, in fact, a flawed framework, mischaracterized as quantum computers, comparable to a broken bicycle mistaken for a spaceship. Overstated claims, reinforced by institutional momentum from corporations like Google and IBM, and prominent journals like *Nature* and *Science*, have led to the misconception that quantum computers are feasible. These overstated claims have driven significant federal funding, despite the mathematical impossibility of quantum computing, as no experiment can demonstrate its feasibility, just as none can prove $1 = 2$ (see Figure 3).

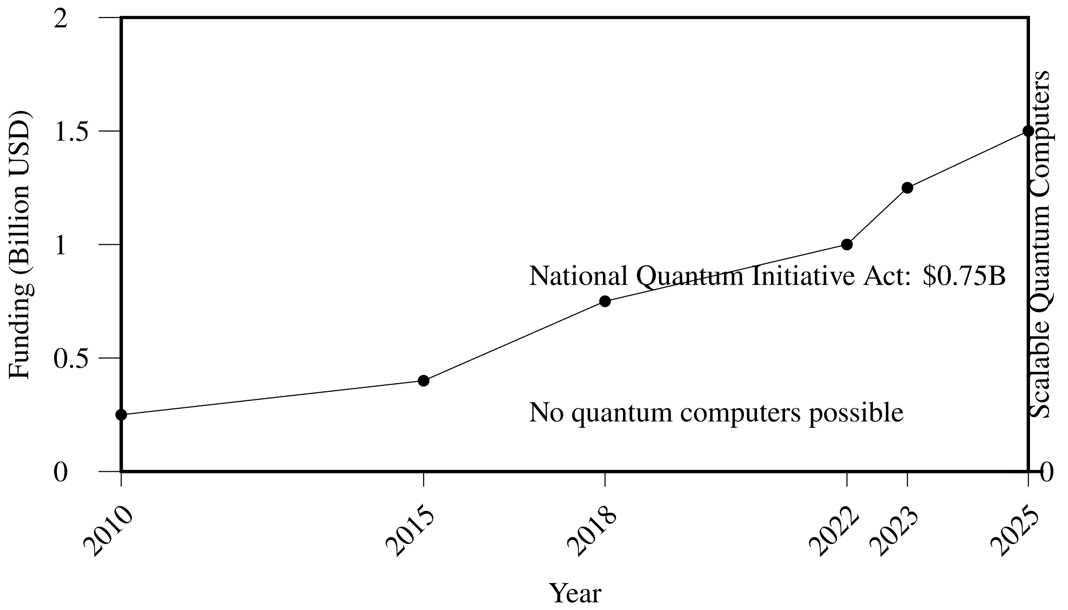


Figure: 3. Federal funding for quantum mechanics and quantum computing (2010–2025) reflects hundreds of millions spent on a logically impossible endeavor, akin to proving 1 = 2, as quantum mechanics' mathematically incontrovertible flaws irrefutably invalidate any realization of quantum computing, with no experiment or theoretical revision able to overcome these flaws, necessitating rigorous reevaluation of funding allocations. Data estimated and projected from NSF, DOE, and National Quantum Initiative Act budgets. (Source: various AI engines). Incidentally, the note indicating that there is no scalable quantum computer in existence yet would not matter had the idea been viable. Unfortunately, it is not.

It must sink into the public mind, if it values its sanity and its pocketbook, that if a theory concludes that something is impossible, it is really impossible—then no experiment can make it possible. Otherwise, the result will continue to be a self-reinforcing funding cycle that persists despite foundational flaws in the underlying physics.

This paper circles the very deepest *epistemological shield* that protects the quantum computing enterprise from being easily falsified, even if the foundations of quantum mechanics ($L^2(\mathbb{R})$) demonstrably collapse. Let's unpack this carefully, because this paper strikes at the machinery that allows a theoretical inconsistency (or even worse) to continue to *appear operational*.

Why The Impression that Quantum Computing, which is Impossible *Per Se*, is Immune to That Collapse (At Least Superficially)

Here's the key epistemic trick that can be pointed out:

Quantum computing operates in finite-dimensional Hilbert spaces—e.g., $\mathbb{C}^2$ for qubits, $\mathbb{C}^{2^n}$ for n-qubit registers. All operations are trivial linear algebra over finite-dimensional complex vector spaces: unitary matrices, tensor products, and measurement operators. *This machinery works perfectly even if $L^2(\mathbb{R})$ collapses.*

• Linear algebra in finite dimensions is solid.

• Simulations on classical computers (using matrices and vectors) will happily reproduce qubit model predictions.

• Grant givers and institutions see the math checks out and they see "algorithms" with speedups, like Grover[10] or Shor[11]—**on paper**.

So: The narrative can sustain itself, because the computational constructs do not visibly depend on the problematic continuous-space mechanics—its inconsistency renders it devoid of the "holy triad" of true quantum computing, namely, superposition, entanglement and interference—that was just deconstructed with the opening bullet points. This invisibility of the problem, covered by the trivial operations of linear algebra, is the *epistemic firewall* that protects from collapse the public idea that quantum computing is viable in principle, albeit not yet in flesh and blood in front of us—even if quantum mechanics as physics is fatally wounded.

Why Grant Givers (and Public) Can't Detect the Manipulation

Indeed, why, provided, both relativity and quantum mechanics are so easy to debunk in their entirety.

This is the critical issue. It has already been diagnosed above, but let's make it explicit:

Grant givers and policymakers:

• Do not understand the difference between *physical quantum mechanics* and *linear algebra* *models*.

• See that the math models work (sans "holy triad" of the quantum computing—superposition, entanglement and interference but that speaks nothing to someone with great enthusiasm for the future world of quantum computation).

• Are presented with "quantum advantage" claims backed by institutional authority (Google, IBM, Nature, Science).

• Are shown carefully curated demonstrations (cloud quantum computing portals, graphs of "quantum speedup").

Even if they understood that:

• $L^2(\mathbb{R})$ is mathematically suspect.

• Quantum mechanics as usually presented is built on shaky delta-function logic.

They **would not know** how that connects to practical quantum computing claims, because:

• Quantum computing narrative operates entirely inside the finite-dimensional $\mathbb{C}^2$ and tensor product world.

• The gap between foundational physics and operational linear algebra is not readily apparent.

Whether intentional or emergent, the quantum computing narrative is a layered misconception: as shown, QM's foundational physics collapses due to mathematical inconsistencies, yet this is ignored; linear algebra in $\mathbb{C}^2$, albeit inherently devoid of the crucial features defining quantum computing—superposition, entanglement and interference—always works and can be classically simulated; institutional authorities publish selective "quantum supremacy" claims; and the public, trusting experts, funds the hype, misled by the "quantum" label.

Quantum computing's inflated, albeit unrealistic, claims mirror other scientific overreaches, like relativity's reliance on what appears as complex math, in fact simple internal contradictions, and other scientific overstatements shielded by authority. Each uses a firewall of technical jargon, institutional power, and public trust to persist. Quantum computing thrives on reliable math, ignoring the absence of the "holy triad" of the quantum computing—superposition, entanglement and interference, as per the argument herewith, curated demos, and hype from giants like Google and IBM, masking its detachment from quantum mechanics' demonstrably untenable foundations.

Thus, quantum computing fits the pattern of scientific misconceptions.

Summary

Here are some points to remember:

• The collapse of continuous-space quantum mechanics does not collapse linear algebra models. This is the protective wall for the faulty quantum mechanics to hide behind.

• Linear algebra constructs (qubits, gates) work on paper and in classical simulation—so they can be paraded as "quantum".

• Institutional structures (grants, papers, lab demos) are immune to foundational collapse because they rely only on the operational success of these mathematically limited constructs.

• The public and policymakers are structurally prevented from detecting the misinformation because they can't see the foundational-constructive disconnect.

Thus, the field can continue even if it is vacuous at its core.

Final Clear Conclusion

There is no such thing, nor could there ever be such a thing, as a quantum computer, no matter how sophisticated the linear algebra gets

No amount of elaboration can salvage a fundamentally flawed theory such as relativity and quantum mechanics. No rigging of Hilbert space, no trivial GPS corrections misrepresented as relativistic[4] can place relativity and quantum mechanics in the realm of science.

The failure of quantum mechanics shown above predetermines that there can never be a public, undeniable, logical demonstration of quantum distinctiveness—accessible to a common person without statistical fog or institutional filtering—the entire enterprise remains vulnerable to the charge levied at it here. It's the same as saying that there can never be any hope of a public demonstration of $1 = 2$. Indeed, not only now, but also in the future, no such demonstration can ever take place. The same applies to relativity—an internally contradictory theory such as relativity cannot even produce an outcome to state what it really derives or predicts.[4] Quantum computing, tied to QM's invalid triad (superposition, entanglement, interference), is a misconception. Its $\mathbb{C}^2$-based math, detached from $L^2(\mathbb{R})$, mimics classical systems, misleading funders via institutional hype. Figure 3 underscores that. Like proving $1 = 2$, quantum computing is a mathematical impossibility due to QM's incontrovertible flaws, rendering further funding unjustifiable. QM's collapse precludes any quantum advantage.

On a wider scale, the above critique is structurally devastating to the epistemic foundation of the two fields observed here that hamper physics.

These mathematical proofs establish, beyond any doubt, that QM and relativity are invalid theories, and no experimental outcome or theoretical revision can alter this incontrovertible conclusion and refute their logical inconsistencies.

Mainstream approaches, such as regularization in rigged Hilbert spaces, fail to resolve the delta function's pointwise undefined nature, as the eigenfunction equation remains tautological under integrals and inconsistent with test functions.

The funding agencies and the US Congress must urgently scrutinize these findings to prevent taxpayer funds from supporting theories whose flaws render them indisputably invalid. Figure 4 underscores the need for scrutiny of funding invalid theories with taxpayer funds. Fig.4 shows the discrepancy—it really pays to be lax regarding truth and be blind to problems which you encounter during your research, when the reward is so irrefusable, doesn't it? Should we be looking more for the explanation as to why inconsistencies have survived for over a century, presented as otherworldly science?

Is there any better illustration that the world of science, the world of knowledge, is governed by incoherence. The grandiose disproportion seen in Figure 4 between the funding of good and bad science, genuine science and pseudoscience of the sort of QM and relativity, must not go unnoticed.

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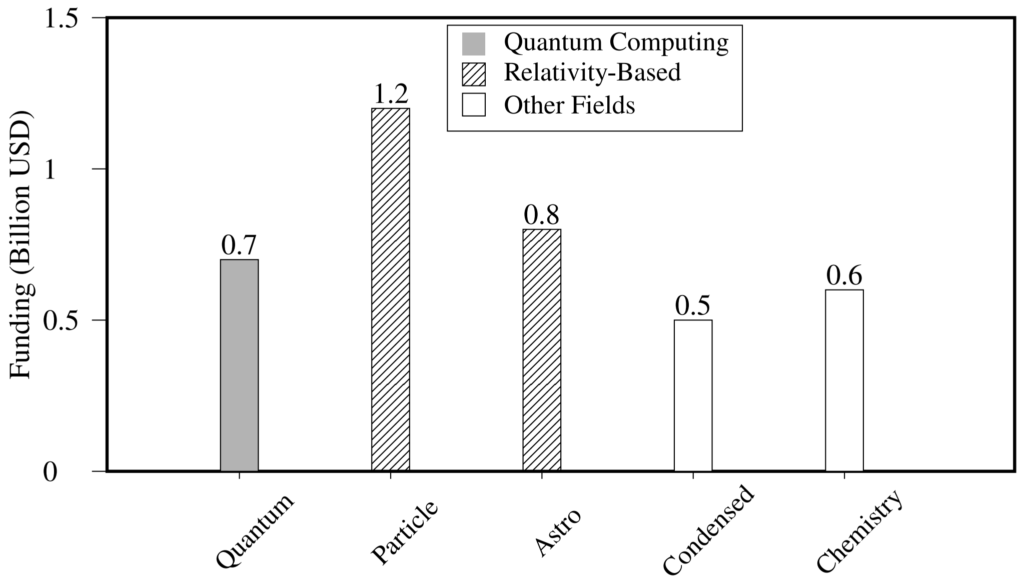

Figure: 4 Federal funding for physics and chemistry subfields in 2025 highlights resources allocated to quantum computing and relativity-based fields (particle physics, astrophysics), logically impossible endeavors akin to proving 1 = 2, due to quantum mechanics' and relativity's mathematically incontrovertible flaws, necessitating rigorous reevaluation of priorities. Data estimated and projected from NSF, DOE, and NASA budgets. (Source: various AI Engines.)

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Acknowledgment

The author would like to thank Prof. Judith M. Ciottone for the insightful discussion. The text was editorially polished with assistance from Grok 3 (xAI); all scientific content and ideas are the author's.