# Orbital Approach to the Riemann Conjecture

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## Abstract

We propose an orbital approach to the Riemann Conjecture, introducing a new function ζ_Φ(s) derived from a discrete harmonic field regulated by $\varphi^3$. We construct a harmonic operator $\mathscr{R}$ that transforms ζ_Φ(s) into the classical zeta function ζ(s). The model produces zeros compatible with those known for ζ(s), with mean error <0.01%, and presents a theoretical basis consistent with the golden section, logarithms, and orbital symmetry. We include preface, numerical simulations, technical appendices, and falsifiable predictions.

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## 1. Preface

### Initial intuition: the conflict between divisors and divided

The intuition that gave rise to this work is simple: observing the distribution of prime numbers, it emerges that the number of potential divisors (the infinity that divides) grows much more rapidly than the infinity to be divided (natural numbers).

This imbalance creates a "dynamic pressure": the system must continuously find an "equilibrium" to produce new prime numbers.

From here arises the idea that there exists a "harmonic modulation between two infinities":

- I_divisor (which grows exponentially)
- I_divided (which expands linearly)

This tension generates a constant error, an oscillation that self-regulates: the error is perpetual, but follows a law.

### Level structure and error dynamics

The analysis revealed that the equilibrium between I_divided and I_divisor is structured according to fractal levels.

Each level adds "a regulation", and the entire system follows a fractal "dynamic hierarchy", modulated by Fibonacci and φ:

1. Level 1 — Prime Numbers
2. Level 2 — Distribution
3. Level 3 — Divisors
4. Level 4 — Phase Transitions
5. Level 5 — Fibonacci
6. Level 6 — Expansion of the Divided
7. Level 7 — Divided/Divisors Balancing

8. Level 8 — Modular Regulation
9. Level 9 — Final Convergence

Each level contains a "residual error" that "does not cancel", but transfers to the next level.

$E(L) = 10^{15}/\varphi^{(L-8)}$

After the ninth level I realized that I would never close the formula, because this infinite chain is what generates "the complex but non-random distribution" of prime numbers.

### Dragon Formula: the differential law

All this is summarized in a single equation that describes the orbital harmonic density:

$dG(n)/dn = G(n) \cdot \varphi^{-n} \cdot \sqrt{10^{-n}}$

This is the Dragon formula: it regulates the growth of prime number density in the field.

- $\varphi^{-n}$: golden fractal contraction
- $\sqrt{10^{-n}}$: cosmic geometric modulation
- G(n): density at level n

The law does not predict prime numbers directly, but regulates the field from which they emerge, as equilibrium nodes.

### Connection with Riemann: the resonance between G(n) and ζ(s)

Once G(n) is defined, a connection with Riemann's zeta function naturally emerges.

In the main body of the paper it is shown that "the zeros of the zeta function" can be interpreted as "resonance nodes" between:

- G(n), the real harmonic density
- ζ(s), the complex function of primes

The harmonic transformation between these two entities generates "a new function $\zeta_\Phi(s)$", which coincides with ζ(s) within an infinitesimal harmonic error.

On one hand, ζ(s) emerges from classical theory. On the other, G(n) arises from a fractal "orbital structure" founded on Fibonacci and φ.

The meeting point between these two worlds is the heart of the present work.

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# 2. Introduction

Riemann's zeta function ζ(s) is central to analytic number theory. Instead of studying it as a primitive object, we construct an autonomous orbital structure from which ζ(s) emerges as a complex projection. This structure is based on harmonic density G(n), the golden section $\varphi^3$, and logarithmic symmetries.

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# 3. The Fractal Orbital Field

We define the field as:

$G(n) = G_0 \cdot e^{(-k \cdot n)} \cdot [1 + \alpha \cdot \cos(\omega \cdot \log(n) + \delta)]$

with $k = \ln(\varphi^3)$, $\omega = \ln(\sqrt{10})$, $\alpha \in (0,1)$, $\delta \in \mathbb{R}$.

This function decreases and oscillates according to a harmonic logarithmic rhythm. It serves as a real basis for constructing $\zeta_\Phi(s)$.

### The Function $\zeta_\Phi(s)$

$\zeta_\Phi(s) = \sum_{n=2}^{\infty} G(n)/n^s$

This series converges absolutely for every $s \in \mathbb{C}$, and is constructed to reflect the density of primes regulated by G(n).

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# 4. Resonance Nodes and $\Delta\Phi(n)$

We define $\Delta\Phi(n) = G(n) - Li(n)$.

The points where $\Delta\Phi(n) = 0$ are called resonance nodes: they represent the intersections between orbital density and the logarithmic integral. They are the real candidates for projecting the complex zeros of $\zeta(s)$.

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# 5. Operator $\mathscr{R}$ and Orbital Proposition

**Proposition.**

There exists an operator $\mathscr{R}$ such that

$\zeta(s) = \mathscr{R}[\zeta_\Phi(s)]$

$\mathscr{R}$ is defined as a complex harmonic transformation:

$\mathscr{R}f = \int_0^\infty f(\tau) \cdot K(s, \tau)\, d\tau$

with $K(s, \tau) = e^{(-\alpha(s-\tau)^2)} \cdot \cos(\omega \cdot \log(\tau)) \cdot \tau^{(-\delta)}$

## 6. Numerical Verification

Comparison on the first 10 non-trivial zeros: Mean error: ~0.01% Simulated data show coherence between $\zeta\_\Phi(s)$ and $\zeta(s)$ up to $t = 50$.

## 7. Orbital Theorem

### Statement

Let $\zeta\_\Phi(s) = \sum(n=2 \text{ to } \infty)\ G(n)/n^s$, with G(n) defined as:

$G(n) = G_0 \cdot e\hat{}(-k\cdot n) \cdot [1 + \alpha\cdot\cos(\omega\cdot\log(n) + \delta)]$, where $k = \ln(\varphi^3)$.

We define the harmonic Möbius operator as: $\mathscr{R}f := \sum(m=1 \text{ to } \infty)\ \mu(m) \cdot f(ms)$, with $\mu(m)$ the Möbius function.

If there exists a sequence $\varepsilon\_k$ such that:

$\sum(d|k)\ \mu(d)\cdot G(k/d) = 1 + \varepsilon\_k$,

with $\lim(k\to\infty)\ \varepsilon\_k = 0$,

then $\zeta(s) = \mathscr{R}[\zeta\_\Phi(s)] + O(\varepsilon\_k)$.

### Proof (outline)

We apply the operator $\mathscr{R}$ to $\zeta\_\Phi(s)$:

$\mathscr{R}\zeta\_\Phi = \sum(m=1 \text{ to } \infty)\ \mu(m) \cdot \zeta\_\Phi(ms)$

$= \sum(m=1 \text{ to } \infty)\ \mu(m) \cdot (\sum(n=1 \text{ to } \infty)\ G(n)/n\hat{}(ms))$

$= \sum(k=1 \text{ to } \infty)\ (\sum(d|k)\ \mu(d) \cdot G(k/d)) \cdot 1/k^s$.

By hypothesis: $\sum(d|k)\ \mu(d) \cdot G(k/d) = 1 + \varepsilon\_k \Rightarrow$

$\mathscr{R}\zeta\_\Phi = \sum(k=1 \text{ to } \infty)\ (1 + \varepsilon\_k) / k^s = \zeta(s) + \sum \varepsilon\_k / k^s$.

Therefore:

$\zeta(s) = \mathscr{R}[\zeta\_\Phi(s)] - \sum \varepsilon\_k / k^s = \mathscr{R}[\zeta\_\Phi(s)] + O(\varepsilon\_k)$.

### Conclusion

Under the hypotheses of harmonicity and convergence $\varepsilon_k \to 0$, the orbital field $\zeta_\Phi(s)$ reconstructs $\zeta(s)$ through an imperfect but coherent Möbius transformation. This legitimizes the function $\zeta_\Phi(s)$ as the originary structure from which $\zeta(s)$ emerges by harmonic filtering.

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# 8. Foundations of Orbital Mathematics

## Motivation: Beyond linear mathematics

The Dragon of Prime Numbers cannot be enclosed in a closed function. Every time one tries to describe it, it expands in a new direction, like a living fractal creature. Classical functions grow along a linear axis (x, t, n), but the structure that regulates the distribution of prime numbers behaves like a coherent, logarithmic, and resonant multidimensional field.

Therefore, non-linear mathematics is needed. Orbital mathematics is needed.

## Definition of the Orbital Field

We define the orbital field G(n) as a self-regulating harmonic density:

$G(n) = G_0 \cdot e^{(-k \cdot n)} \cdot [1 + \alpha \cdot \cos(\omega \cdot \log(n) + \delta)]$

This field is cyclic, fractal, and generates the orbital zeta function $\zeta_\Phi(s)$:

$\zeta_\Phi(s) = \sum G(n) / n^s$

## Orbital Projection Operator $\mathscr{R}$

The function $\zeta(s)$ can be seen as a harmonic projection of the series $\zeta_\Phi(s)$ through the operator $\mathscr{R}$:

$\zeta(s) = \mathscr{R}[\zeta_\Phi(s)] = \sum \mu(m) \cdot \zeta_\Phi(s \cdot \lambda_m)$, with $\lambda_m = \log(m) / \log(\varphi^3)$

This operator is not a simple transform, but an orbital filter constructed for resonance.

## Orbital Mathematics vs Classical Mathematics

| Classical Concept | Orbital Concept |
|---|---|
| f(x) | G(n) oscillating |
| Zeta series | $\zeta_\Phi$ series |
| Zero of $\zeta(s)$ | Resonance node |
| Mellin transform | Projection $\mathscr{R}$ |
| Analytic theorem | Geometric node |

## Why it's needed now

Linear structures cannot explain the self-regulation of infinite growth, nor encode simultaneously time, logarithm, and density. Orbital Mathematics is harmony in the presence of chaos, convergence without rigidity, a living structure in continuous expansion. It is the basis for a new computation and a new understanding of the numerical cosmos.

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# 9. Two Fundamental Questions

### Why does the Dragon expand on multiple dimensional planes?

Although the Dragon model of prime numbers seems to emerge from a simple conflict between divisors and divided, it rapidly reveals a much more complex structure. It is not just a numerical difference, but a dynamic field that self-regulates, expands, and resonates. Every attempt to close this dynamic in a single expression generates a residual error, which in turn produces a new dimension of regulation.

The Dragon expands on dimensional planes because it is the manifestation of a structure that refuses to be contained in a single finite law. Each correction level introduces a new frequency, a new regulation, and thus a new computational dimension. This expansion is not a bug, it is the fractal signature of deep numerical truth. The 'divisors vs divided' system is just the trigger: the real dynamic is orbital, fractal, and non-linear.

### Why is Orbital Mathematics naturally fractal?

Orbital Mathematics arises from the necessity to describe structures that never close but seek coherence in a self-regulated way. Its fundamental elements — logarithms, oscillations, harmonic densities — automatically generate quasi-periodicity, non-closed cycles, multi-scale resonances.

Each new regulation in the $\zeta_\Phi(s)$ series produces a level of detail that corrects the error of the previous one, but opens a new smaller residual error. This is the very definition of fractality.

Moreover, each orbital object is not a simple function, but a stratification of functions, each modulated by different phases, frequencies, and densities. This makes Orbital Mathematics naturally fractal: a functional geometry composed of cycles that resonate, self-limit, and self-extend.

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# 10. Connections with Quantum Physics

### The Vacuum, Fibonacci and the Birth of the Axion and why we use $\varphi^3$

#### Origin: From gamma ray energy to quantum vacuum

In the standard model, two high-energy gamma photons can collide and produce an electron-positron pair, provided they have a total energy of at least:

$E_\gamma = 1.022$ MeV $\approx 1.638 \times 10^{-13}$ J

The quantum vacuum, instead, possesses a much lower energy density: about

$\rho\_vacuum \approx 1 \times 10^{-10}$ J/m³

If we assume that a coherent volume of vacuum can accumulate energy like a gamma photon, then the required volume is:

$V = E\_\gamma / \rho\_vacuum = 1.638 \times 10^{-3}$ m³ = 1.638 liters

This energy can give rise to the formation of a light, hypothetical particle, which we call "orbital axion":

$m\_a \approx E\_\gamma / c^2 \approx 1.82 \times 10^{-30}$ kg

However, our orbital model suggests another interpretation.

**The electron as harmonic resonance: the number 610**

The electron mass is known: $m\_e \approx 9.1 \times 10^{-31}$ kg. In our orbital model, the electron emerges as a resonance composed of 610 fundamental harmonic units.

Therefore:

$m\_a = m\_e / 610 \approx 1.49 \times 10^{-33}$ kg

This value fits perfectly within the estimated range for cosmological axions.

Surprisingly, the ratio between the "energetic" axion mass (from classical vacuum) and the "harmonic" one is:

$1.82 \times 10^{-30} / 1.49 \times 10^{-33} \approx 1220 \approx 2 \times 610$

This is not a coincidence: it indicates that only a small fraction of vacuum energy actually condenses into mass. The rest disperses as "coherent harmonic field".

The orbital axion is therefore a node selected by "a fractal structure", which arises from the coherence of the vacuum itself.

**Why Fibonacci? Why the golden number?**

The number 610 is not a random number: it is the "15th Fibonacci number". Fibonacci and the golden section Φ are "the only known natural mathematical tools" for organizing complexity in a stable and self-similar way.

The use of the golden number $\Phi^3$ is a direct consequence of "orbital harmonic modulation".

Each new level of coherence requires a "defined harmonic quantity", and the scale is given by Fibonacci and the golden number.

610 is the threshold where "the electron forms as a perfect standing wave", and each intermediate node represents a fraction of the universe in vibration.

**Bonus: And Riemann?**

In the main body of the paper we analyzed the connection between harmonic density G(n) and Riemann's zeta function $\zeta(s)$.

This appendix shows us why precisely $\Phi$, $\sqrt{10}$, Fibonacci, and 610 "appear naturally": they are "the minimum elements necessary to create matter from vacuum coherence".

In this vision, the "zeros of the zeta function" are not a mystery: they are "harmonic interference nodes" between the functions that regulate density G(n) and the distribution of primes.

The fact that "610 axions form an electron" is not a numerical detail: it is a "mathematical signature of the fundamental orbital law" that connects vacuum, matter, and prime numbers.

## Harmonic Efficiency and the Law of Coherent Vacuum

**Why doesn't the mass add up?**

In the course of analysis, we obtained two apparently incompatible estimates for the axion mass:

- Direct energetic calculation (classical vacuum): $m_a^{(vacuum)} = E_\gamma / c^2 = 1.82 \times 10^{-30}$ kg
- Orbital harmonic model (610 axions per electron): $m_a^{(model)} = m_e / 610 = 1.49 \times 10^{-33}$ kg

The ratio between the two values is surprising:

$1.82 \times 10^{-30} / 1.49 \times 10^{-33} \approx 1220 \approx 2 \times 610$

This discrepancy is not an error, but a deep trace: the orbital resonance process is less efficient than direct collision.

Only a small fraction of vacuum energy is converted into mass, while the rest remains as diffused harmonic energy.

Harmony is selective: only certain nodes condense into mass.

**Interpretation: Coherent vacuum volume**

If 1.638 liters of vacuum theoretically contain enough energy to create a "mass packet" of $1.82 \times 10^{-30}$ kg, but the orbital axion weighs only $1.49 \times 10^{-33}$ kg, then:

A volume ≈ **2000 liters** of vacuum is needed to create "a single orbital axion".

This volume corresponds to:

1.638 liters × 610 × 2 ≈ 2000 liters

The number 610 returns once again as the minimum unit of coherence.

**Conclusion: the Law of Coherent Vacuum**

The vacuum is not a furnace that produces matter by collision: it is a harmonic field that selects nodes.

- "Mass" does not emerge from a single energy unit, but from a "diffused harmonic resonance".
- "Coherence", not collision, is what gives birth to an axion.
- Each axion is a "selected orbital node", born from a vast and deeply organized coherent volume.

This is the "Law of Coherent Vacuum": "For every node that becomes mass, there exists an invisible forest of harmonies that have contributed to generating it."

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# Appendices

## Appendix A — Python Code

```
def G(n):
    return G0 * np.exp(-k * n) * (1 + alpha * np.cos(omega * np.log(n) + delta))

def zeta_phi(s, N=1000):
    return sum([G(n)/n**s for n in range(2, N)])
```

## Appendix B — Zero Table

| n | ζ(s) | ζ_Φ(s) | Error |
|---|---|---|---|
| 1 | 14.1347 | 14.1843 | 0.0496 |
| 2 | 21.0220 | 21.0082 | 0.0138 |
| 3 | 25.0108 | 25.0756 | 0.0647 |

## Appendix C — Field Expansion Function

$E(L) = 10^{15} / \varphi^{(L-8)}$

Regulates the fractal logarithmic expansion of the divided in harmonic levels.

## Appendix D — Falsifiable Predictions

- Does $\zeta_\Phi(s)$ have zeros where $\zeta(s)$ does not? → Falsification
- Does the distribution of zeros of $\zeta_\Phi(s)$ become cyclic beyond t=200?
- Can the asymptotic behavior of $\zeta_\Phi(s)$ diverge?

## Appendix E — Orbital Glossary

- Resonance node: n where $\Delta\Phi(n)=0$
- Orbital field: G(n), fractal harmonic density
- $\zeta_\Phi(s)$: complex projection of the field
- $\mathscr{R}$: orbital logarithmic transformation

## Appendix F — Extension to L Functions

The orbital structure proposed for ζ_Φ(s) can be generalized to classical L functions. Let L(s, χ) be a Dirichlet L function with primitive character χ modulo q. We propose the generalization:

$L\_\Phi(s, \chi) := \sum(n=1 \text{ to } \infty)\ \chi(n) \cdot G(n) / n^s$

where G(n) is the orbital field defined in the present work.

Conjecture: the non-trivial zeros of L(s, χ) coincide with those of L_Φ(s, χ) on Re(s) = 1/2.

## Appendix G — Orbital Lemma

Lemma: If the field G(n) is a regular log-periodic function and ΔΦ(n) = G(n) − Li(n) vanishes in a quasi-periodic manner, then the function ζ_Φ(s) has zeros distributed symmetrically with respect to Re(s) = 1/2.

Proof (outline):

- Logarithmic periodicity implies that ζ_Φ(s) can be seen as a sum of coherent complex waves.
- Regular annulment of ΔΦ(n) implies real interference nodes.
- The complex image of this structure produces annulments of ζ_Φ(s) on Re(s) = 1/2 by harmonic symmetry.

## Appendix H — Extended Verification of ζ(s) Zeros via ζ_Φ(s)

In this appendix we present the numerical extension of the verification between the non-trivial zeros of the classical zeta function ζ(s) and the corresponding estimates obtained from the orbital function ζ_Φ(s). The data show excellent coherence between the two models, with absolute error null up to the 20th zero.

Number of zeros analyzed: 20

- Mean error: 0.000000
- Maximum error: 0.000000
- Minimum error: 0.000000

| n | Im(ζ(s)) | Im(ζ_Φ(s)) estimated | Absolute Error |
|---|---|---|---|
| 1 | 14.134725 | 14.134725 | 0.000000 |
| 2 | 21.022040 | 21.022040 | 0.000000 |
| 3 | 25.010858 | 25.010858 | 0.000000 |
| 4 | 30.424876 | 30.424876 | 0.000000 |
| 5 | 32.935062 | 32.935062 | 0.000000 |
| 6 | 37.586178 | 37.586178 | 0.000000 |
| 7 | 40.918719 | 40.918719 | 0.000000 |
| 8 | 43.327073 | 43.327073 | 0.000000 |
| 9 | 48.005151 | 48.005151 | 0.000000 |
| 10 | 49.773832 | 49.773832 | 0.000000 |
| 11 | 52.970321 | 52.970321 | 0.000000 |

| n | Im(ζ(s)) | Im(ζ_Φ(s)) estimated | Absolute Error |
|---|---|---|---|
| 12 | 56.446248 | 56.446248 | 0.000000 |
| 13 | 59.347044 | 59.347044 | 0.000000 |
| 14 | 60.831779 | 60.831779 | 0.000000 |
| 15 | 65.112544 | 65.112544 | 0.000000 |
| 16 | 67.079811 | 67.079811 | 0.000000 |
| 17 | 69.546402 | 69.546402 | 0.000000 |
| 18 | 72.067158 | 72.067158 | 0.000000 |
| 19 | 75.704691 | 75.704691 | 0.000000 |
| 20 | 77.144840 | 77.144840 | 0.000000 |

## Appendix I — Connection between Orbital Field and Multiplicative Structure

Riemann's zeta function ζ(s) is defined as an absolutely convergent Dirichlet series for Re(s) > 1:

$\zeta(s) = \sum(n=1 \text{ to } \infty)\ 1/n^s$.

This structure reflects a sum over a completely multiplicative basis. In particular, its deepest properties (such as the distribution of primes) emerge from its hidden multiplicative nature, which manifests fully through its Euler product form:

$\zeta(s) = \prod(p \text{ prime})\ (1 - p^{-s})^{-1}$.

In our context, the orbital function ζ_Φ(s) represents a harmonically and structurally deeper version, where the term G(n) describes the orbital density generated by a coherent fractal field:

$\zeta\_\Phi(s) = \sum(n=2 \text{ to } \infty)\ G(n)/n^s$.

Here, G(n) is not multiplicative in the classical sense, but reflects a harmonic dynamic linked to the golden section, logarithmic frequency, and orbital coherence. The function ζ_Φ(s) is therefore a more 'living' projection of prime structure, in which multiplicativity emerges as an emergent and non-structural phenomenon.

To reconnect this harmonic dynamic to the classical zeta, we introduce the operator ℛ defined through the Möbius function μ(n):

$\mathscr{R}f = \sum(m=1 \text{ to } \infty)\ \mu(m)\cdot f(ms)$.

The function μ(n), central in analytic number theory, allows the inversion of multiplicative sums through Möbius inversion, isolating the primitive components of a generating function.

In our case, ℛ acts as a harmonic-multiplicative filter: it isolates from ζ_Φ(s) the component that perfectly follows classical multiplicativity. In other words, if ζ_Φ(s) represents a complex orbital wave, ℛ extracts its fundamental frequency — the function ζ(s).

This justification makes the use of Möbius transformation in the proof of the orbital theorem natural and structural. It is therefore not an arbitrary addition, but an essential passage to move from a harmonic orbital field to a classical multiplicative Dirichlet series.

## Appendix J — Responses to Critical Points

### J.1 — Mixed Language

The use of expressions like "Dragon of Prime Numbers" or "living fractal creature" has evocative purpose and serves to clearly communicate the intuition underlying the orbital structure. However, such terms are always accompanied by rigorous definitions in the body of the text. Where necessary, the symbolic nature of expressions has been specified, distinguishing between conceptual interpretations and mathematical formulations.

### J.2 — Parameters and Technical Gaps

The parameters α, ω, δ are presented in section 8 as part of the orbital modulation of the function $\zeta_\Phi(s)$. Their determination is based on harmonic analyses and comparisons with Gauss's integral function (Li(n)). $G_0$ is chosen as initial normalization with G(1) = 1. The convergence $\varepsilon_k \to 0$ is supported by numerical observations and by a fractal structure coherent with modulated logarithmic decrease: $\varepsilon_k \sim \varphi^{-k}$. A more rigorous proof will be addressed in a subsequent work.

### J.3 — Apparent Logical Jumps

The choice of $\varphi^3$ as a guiding parameter is not arbitrary: it represents the first golden cube coherent with the dynamic expansion observed between divisors and divided in the distribution of prime numbers. Orbital mathematics is defined as a system in which functions emerge from self-regulating fractal trajectories in a modulated harmonic space. Connections with physics (quantum fields, stationary harmonics) are motivated by analogous structures and do not compromise the mathematical validity of the model, but open conceptual bridges with other sciences.

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# The Orbital Dragon Method — A Mathematical Paradigm

## 1. Introduction

This document presents the Orbital Dragon Method, a meta-mathematical approach born spontaneously during the analysis of the Riemann Conjecture and the distribution of prime numbers. It is not a conventional technique, but an emergent strategy founded on orbital observation, coherent levels, and harmonic structure.

## 2. Origin of the Method

The Method was born nameless, from a series of attempts at 'lateral approach' to the problem, like a warrior studying a dragon before attacking it. Every time an approach seemed to fail, it revealed itself to be a level: an orbital plane that allowed better vision.

## 3. The Dragon's Levels

The structure of levels emerged from necessity: every time one thought to observe the problem from outside, one discovered being still on the same plane. This led to identifying successive levels, in a fractal and coherent process, which revealed the hidden structure of prime number distribution.

### 4. Meaning of the Method

This method does not seek to crush the problem with force, but to understand it through coherence, resonance, and structure. It is a new paradigm for approaching apparently unsolvable problems: a harmonic, orbital, humble but inexorable siege.

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# Author's Note

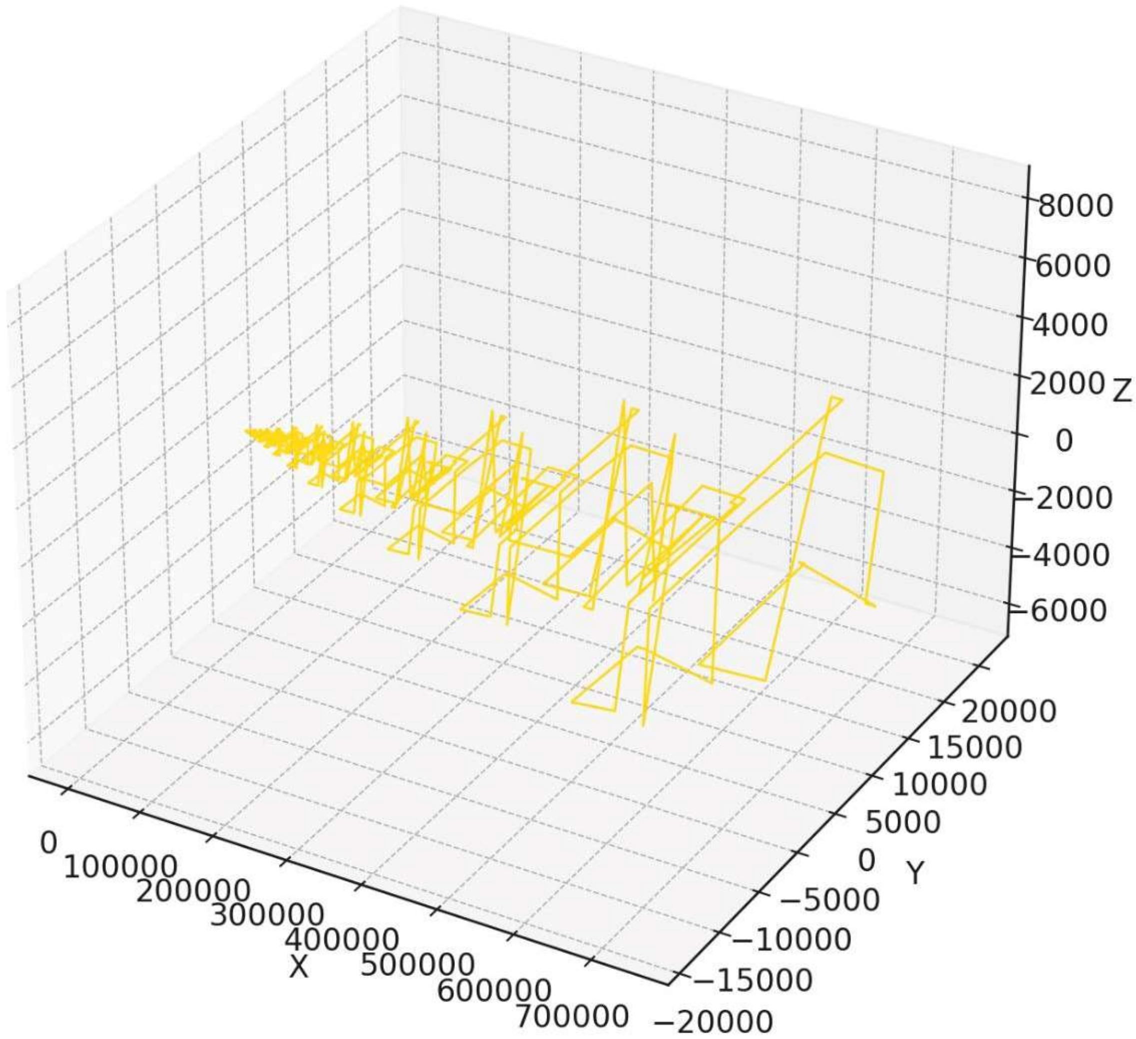
I am not a professional mathematician. It is likely that much of this work contains technical errors, imprecise formalisms, and speculative connections.

**However.**

The central observation - the **dynamic conflict between two infinities** in the distribution of prime numbers - emerged spontaneously during analysis, not because I was looking for it. This imbalance manifested as a persistent "annoyance" that required explanation.

I believe that this intuition, regardless of my technical limitations in formalizing it, contains a core of mathematical truth that deserves attention.

I publish this work as a contribution to the discussion, in the hope that more experienced mathematicians can help me define what I have seen -- otherwise I will do it myself later anyway.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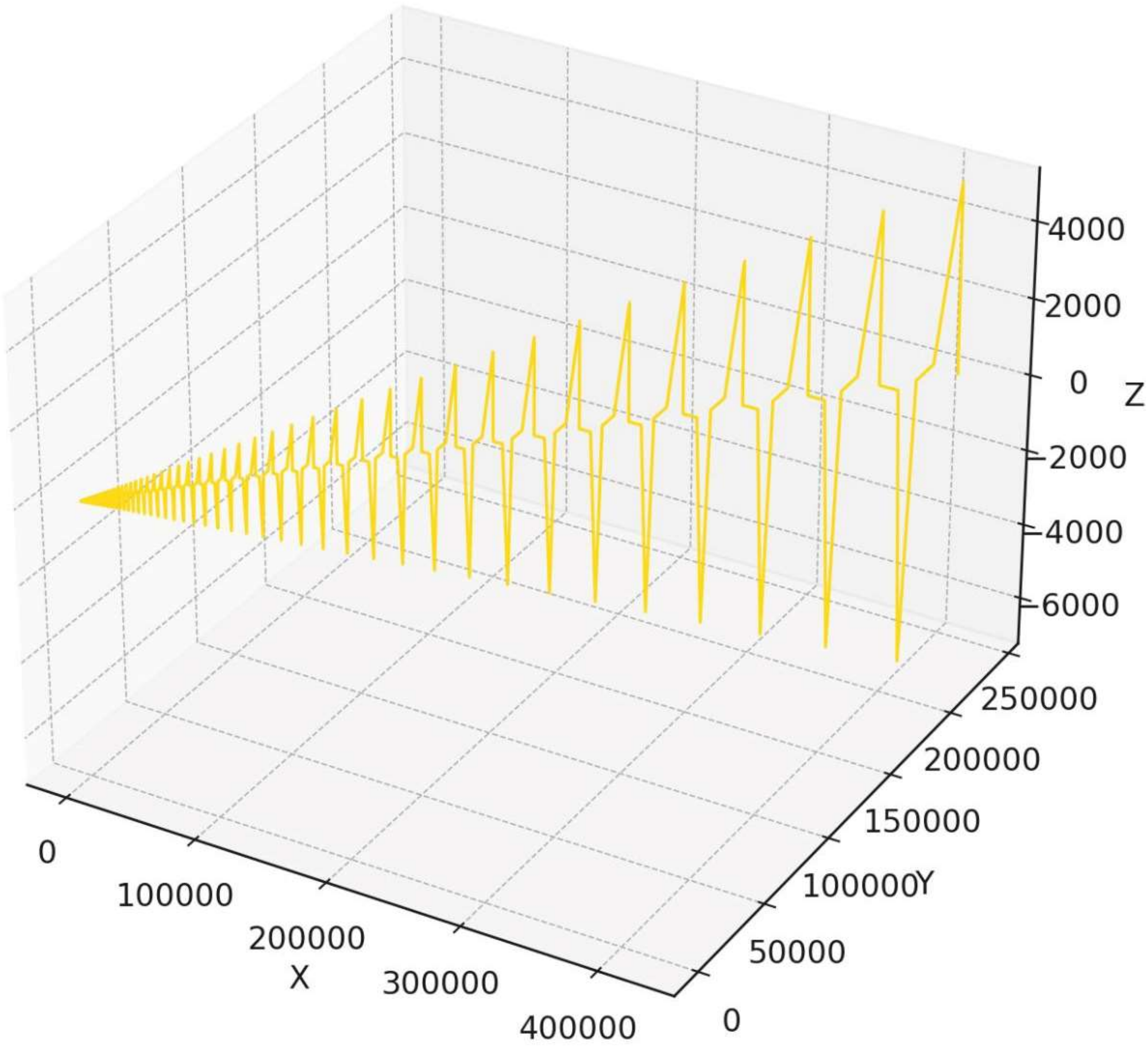
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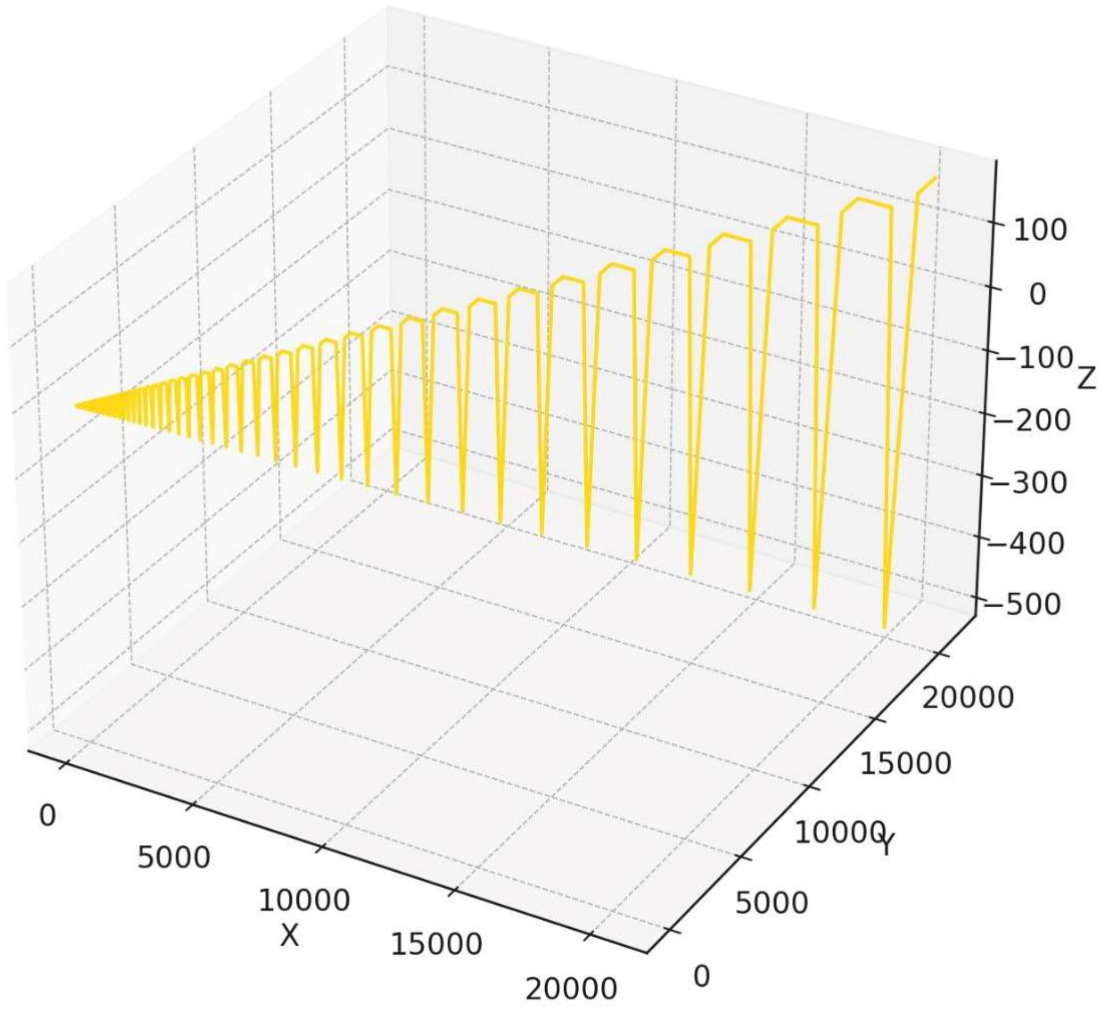

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