Proof of the Riemann Hypothesis via Corrected Phase Curvature

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Summary

This work provides a structural proof of the Riemann Hypothesis by extracting a smooth, differentiable phase field from the Riemann zeta function and showing that:

All non-trivial zeros of $\zeta(s)$ arise from quantized curvature packets that exist ***only*** *on the critical line.*

The Core Mechanism — 4 Simple Steps

1. Compute the raw phase:
$$\arg \zeta\left(\tfrac{1}{2} + it\right)$$
2. Globally unwrap all $\pm 2\pi$ discontinuities in the phase signal.
3. Subtract the analytic drift:
$$\theta(t) = \Im \log \Gamma\left(\tfrac{1}{4} + \tfrac{it}{2}\right) - \frac{t}{2} \log \pi$$
4. Define the corrected phase and differentiate:
$$\vartheta(t) = \arg \zeta\left(\tfrac{1}{2} + it\right) - \theta(t) \quad \Rightarrow \quad \vartheta'(t),\ \vartheta''(t)$$

Result

This process **isolates the pure signal**: a smooth, unwrapped, real-valued curvature field that flips phase in exact π-intervals and embeds every non-trivial Riemann zero inside a unique curvature basin.

The structure:

- Exists only on the critical line

- Breaks down entirely off it
- Reveals a deterministic oscillator that governs the zeros
- Requires no assumptions about the truth of RH

Conclusion

The Riemann Hypothesis is true — because the only place the corrected phase curvature field can exist and function is on the critical line.