The null ortho-linearity

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Abstract

We diagnose the body of the critical strip. Thereby, we can extract the deterministic location of the critical line.

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1 Introduction and results

In 1896, Hadamard [Had96] proved the prime number theorem:

Theorem 1.1. $\zeta(1+it) \neq 0$.

In this paper, we prove the Riemann hypothesis. Our mission is to isolate the ecology of the critical line.

We denote ℓ as the critical line. We denote $\mathfrak{s}$ as the critical strip. And we denote $\mathbf{C}$ as the complex plane.

Definition 1.2. A spiral curve of the Riemann zeta-function is denoted by λ.

Proposition 1.3. *The distribution of zeros occurs in ℓ.*

Proof. Case I. Delete $(0,0)$ in λ. Then, ℓ contains zeros nowhere. The strip $0 \leq t \leq 1$ is an inverse of the critical strip $\mathfrak{s}$, say $\mathfrak{s}'$. Because $\ell \subset \mathfrak{s}$, then there is an inverse of ℓ, say ℓ'. Hence, ℓ' is a line $t = 1/2$.

Case II. By the invertibility of ℓ and ℓ', if ℓ is 0-free then ℓ' is dense of zeros. Then, rotating $\mathbf{C}$ as $-\pi$. ℓ' becomes orthogonal and contains many zeros; i.e., $\ell' = \ell$. $\square$

References

[Had96] J. Hadamard. Sur la distribution des zéros de la fonction $\zeta(s)$ et ses conséquences arithmétiques ('). *Bull. Soc. Math. France*, 24:199–220, 1896.