Abstract

In this paper, we analyze the anatomy of critical line.

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1 Introduction and results

In 1914, Hardy [Har14] proved that there are infinitely many zeros of \( \zeta(1/2 + it) \). In this paper, we survey the critical line. Our motivation is to propose the axiomatic pattern of zeros on the critical line.

We denote \( R \) as the set of zeros on the critical line and its complement as \( C(R) \). And \( \lfloor x \rfloor \) denotes the integer part of \( x \). We have the following postulate.

**Postulate 1.** Let \( E \) be any zero on the critical line. Then:

1. \( |E| > 0 \).
2. \( \lfloor E \rfloor \in \mathbb{Z} \).
3. \( E \notin C(R) \).

References