THE FIRST 200,000,001 ZEROS OF RIEMANN'S ZETA FUNCTION

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Abstract

We describe extensive computations which show that Riemann's zeta function $\zeta(s)$ has exactly 200,000,001 zeros of the form $\sigma+it$ in the region $0 < t < 81{,}702{,}130.19$; all these zeros are simple and lie on the line $\sigma = 1/2$. This extends a result for the first 81,000,001 zeros, established by Brent in [1]. Counts of the numbers of Gram blocks of various types and the failures of "Rosser's rule" are given.

Comments

Only the Abstract is given here. The full paper, which appeared as [3], extended the results of [1]. A revision appeared as [2]. For further work, see [4].

References

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