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ANALYSIS OF RIEMANN-GOLDBACH CONJECTURE BASED ON CIRCULAR LOGARITHM

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ABSTRACT

1900, D. Hilbert announced 23 questions at the International Congress of Mathematicians. Among them, the Riemann conjecture is the merger of the Goldbach conjecture, the twin prime conjecture and the Riemann conjecture. A law was found that was multiplied by a prime number to form a "reciprocal and positive" function (average) and its reciprocal properties.

Prove the"big O of 1"of the ζ function (ie the distribution and value of the infinite prime number between 0 and 1) and the three observed invariants and isomorphic properties, single properties, reciprocity, singularity of even and even of odd, and the composition of pure even and pure odd numbers.

The obtained ζ function is normalized to any prime number (integer), the same number of zeros as the number of infinite prime numbers. The complex zero on the critical line is L = (0, 1 / 2, 1) ^ Z. The abnormal zero is: where Riemann conjecture {1/2}+ 1 (containing twin primes); Goldbach conjecture (including odd numbers) Guess) {1/2}^ - 1 = {2} (even).

INTRODUCTION

In 1900, D. Hilbert proposed 23 questions at the 2nd International Congress of Mathematicians. The eighth question, the Riemann conjecture, was the Goldbach conjecture, the twin prime conjecture, and the Riemann conjecture. The merger of the three conjectures. In the sense of number theory, these three conjectures are the core issues in number theory.

For hundreds of years, many mathematicians have gone through their life and devoted themselves to research, created many algorithms, promoted the development of number theory, and promoted the development of human science and technology. However, as Klein said in "The Ancient and Modern Mathematical Thoughts": There has been no breakthrough in mathematics since 1930, and the Riemann conjecture has still not been resolved. "The difficulty lies in infinity. It reflects the urgency and arduousness of mathematical reform.

This paper finds that the prime number is multiplied to form the "reciprocal and positive" mean and mutual inverse rules. Prove the " large O of 1" of the ζ function (that is, the distribution and value of the infinite prime number between 0 and 1), and the three one gauge invariances of isomorphism, unity, and reciprocity and the singularity of prime numbers. , even composition.

Since then, the transformation of traditional logarithm, calculus, and logical algebra has been reformed, and the "arithmetic arithmetic of four elements without specific prime content" has been established, called the circular logarithmic equation. Thus, the ζ function can be normalized to a (unit) prime number, and the same zero number as the infinite prime number is obtained, and $L=(0, 1/2, 1)^{Z}$ is on the critical line. Among them, the abnormal zeros are: $\{1/2\}^{+1}$ of the Riemann conjecture (with twin primes); $\{1/2\}^{-1}=\{2\}$ (even) of Goldbach's conjecture.

The Multiplication of Prime numbers Constitutes the Positive Mean and the Reciprocal mean

The Reciprocal Multiplication of the Riemannian Function to Form the Reciprocal law

Definition: Infinite prime function, any finite power function Z=K(Z±S±N±P) multiplicative combination, non-repetitive combination of arbitrary finite primes of infinite program, set into infinite arbitrary finite positive and negative high power Polynomial. The order of the items is the number of corresponding combinations (called coefficients) divided by the various combinations (all of which are not demanding

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combinations) are positive and reciprocal average function values. Collectively referred to as "prime function"

Heve (P) $^{K(Z\pm S)}= \prod_P\{x_1^{KS}x_2^{KS}\ldots x_p^{KS}\ldots x_q^{KS}\}\in\{X^S\}^{K(Z\pm S)}\in\{X\}^{K(Z\pm S)}$

where: $\prod P$ indicates that P is a multiplicative set of P prime numbers, and the combination coefficient $C_{(S\pm P)}$. A combination of unknown prime numbers, in uppercase font$\{X_0\}^{K(Z\pm S\pm N-P)}$; a combination of known prime numbers, with a hollow font $\{D_0\}^{K(Z\pm S\pm N+P)}$

Set: under regularization conditions, $(1/C_{(S\pm 0)})=1$; $(1/C_{(S-p)})=(1/C_{(S+p)})$; $\{X_0\}^{K(Z\pm S-P)}\neq\{D_0\}^{K(Z\pm S+P)}$;

Where the power function is not necessarily written complete or missing, there are

Z=Z±S±N±P、Z=Z±S±N、Z=Z±S、Z=Z, K=(+1,0,-1), the same as below).

After extracting the logarithm of the circle:

$(1-\eta^2)^{K(Z\pm S\pm P)}=\{X_0\}^{K(Z\pm S-P)}\cdot\{D_0\}^{K(Z\pm S+P)}=\{X_0\}^{K(Z\pm S\pm P)}/\{D_0\}^{K(Z\pm S\pm P)}$; (1.1)

heve : $\{X_0\}^{K(Z\pm S\pm N-P)}=\{D_0\}^{K(Z\pm S\pm N+P)}$;

$=\{(1/C_{(S\pm 0)})[\prod_P X_i^K]\}^{K(Z\pm S\pm N\pm 0)}+\{(1/C_{(S\pm 1)})\sum[X_i^K+\ldots]\}^{K(Z\pm S\pm N\pm 1)}+\ldots$

$+\{\sum(1/C_{(S\pm p)})[\prod_P(X_p)^K+\ldots]\}^{K(Z\pm S\pm N\pm p)}+\ldots+\{\sum(1/C_{(S\pm q)})[\prod_P(X_q)^K+\ldots]\}^{K(Z\pm S\pm N\pm q)}$

$=\{X_0\}^{K(Z\pm S\pm N-0)}+\{X_0\}^{K(Z\pm S\pm N-1)}+\ldots+\{X_0\}^{K(Z\pm S\pm N-p)}+\ldots+\{X_0\}^{K(Z\pm S\pm N-q)}$; (1.2)

or : $=\{P_1\}^{K(Z\pm S\pm N)}+\{P_2\}^{K(Z\pm S\pm N)}+\ldots+\{P_p\}^{K(Z\pm S\pm N)}+\{P_q\}^{K(Z\pm S\pm N)}$; (1.3)

Formula (1.3) P is a prime number, and the Riemannian function is reciprocal, called the reciprocal function. (the same below)

$C_{(S\pm P)}=C_{(S+P)}=C_{(S-P)}=$ (s-0) (s-1)(s-2)…(s-p) ! / P(p-1) …3,2,1 ! (1.4)

where: $\{X\}^{K(Z\pm S\pm N-P)}$ in the unknown function is called (P=-P) reciprocal function;

Known function$\{D\}^{K(Z\pm S\pm N+P)}$ is called (P=+P) positive number function;

$\{X_0\}^{K(Z\pm S\pm N-P)}$ in the unknown mean function (P=-p) reciprocal average;

It is known that the average function

$\{D_0\}^{K(Z\pm S\pm N+P)}$ is called (P=+p) positive mean value;

$\{X\pm D\}^{K(Z\pm S\pm N\pm P)}$is called (P=±p) combination equation in the combination function;

$\{X_0\pm D_0\}^{K(Z\pm S\pm N\pm P)}$ in the combined averaging function (P=±p) combined averaging equation;

Proof: Reciprocity of each item sequence combination (±P) level.

Proof: take the number of arbitrary finite primes in infinity (Z±S) called power Dimension; (Z≥S≥P≥0); from natural number P=(0,1,2, …,P) to infinite order Combination, using an iterative method.

$\{X\}^{K(Z\pm S\pm P)}$ is sequentially divided by$\sum(1/C_{(S\pm P)})[\prod(x_a x_b\ldots x_p\ldots x_q)^K+\ldots]^{K(Z\pm S\pm P)}$;

In particular, when the prime number is all consecutively multiplied

$\{X\}^{K(S\pm P\pm 0)}=[\prod(x_1x_2\ldots x_p\ldots x_q)]^{K(S\pm P\pm 0)}$; $C_{(P\pm 0)}=1$;

heve : $\{X\}^{K(Z\pm S\pm P)}=\sum(1/C_{p+1})[\prod(x_1\cdot x_2\cdot\ldots\cdot x_p\cdot\ldots\cdot x_q)^K+\ldots]^{K(Z\pm S\pm P)}$

$=[\sum(C_{(P\pm 0)})[\prod(x_1x_2\ldots x_p\ldots x_q)_p{}^K]^{K(Z\pm S\pm P)}$

$/\sum(1/C_{(P+1)})(x_1+x_2+\ldots+x_p+\ldots+x_q)_p{}^{K(Z\pm S\pm P+1)}]$

$\cdot\sum(1/C_{(P+1)})(x_1+x_2+\ldots+x_p+\ldots+x_q)_p{}^{K(Z\pm S\pm P+1)})$

$=[\sum(1/C_{(P-1)})^{-1}\Sigma(x_1^{-1}+x_2^{-1}+\ldots+x_p^{-1}+\ldots+x_q^{-1})]^{K(Z\pm S\pm P-1)}$

$\cdot[\sum(1/C_{(P+1)})^{+1}\Sigma(D_1^{+1}+D_2^{+1}+\ldots+D_p^{+1}+\ldots+D_q^{+1})]^{K(Z\pm S\pm P+1)}$

$=\{X_0\}^{K(Z\pm S\pm P-1)}\cdot\{D_0\}^{K(Z\pm S\pm P+1)}$ (1.5)

$\{D_0\}^{K(Z\pm S\pm P+1)}=[(1/C_{(P+1)})^{+1}\Sigma(D_1^{+1}+D_2^{+1}+\ldots+D_p^{+1}+\ldots+D_q^{+1})]^{K(Z\pm S\pm P+1)}=\{X_0\}^{K(Z\pm S\pm P-1)}$

on the contrary:

$\{X\}^{K(Z\pm S\pm 1)}=[(C_{p+0})\prod_p(x_1\cdot x_2\cdot\ldots\cdot x_p\cdot\ldots\cdot x_q)]^{K(Z\pm S\pm 0)}$

$/\ [(1/C_{p-1})^{-1}(x_1^{-1}+x_2^{-1}+\ldots+x_p^{-1}+\ldots+x_q^{-1})]^{K(Z\pm S-1)}$

$\bullet\ [(1/C_{p-1})^{-1}(D_1^{-1}+D_2^{-1}+\ldots+D_p^{-1}+\ldots+D_q^{-1})]^{K(Z\pm S-1)}$

$=\{X_0\}^{K(Z\pm S\pm P-1)}\cdot\{D_0\}^{K(Z\pm S\pm P+1)}$ (1.6)

Among them : $\{X\}^{K(Z\pm S\pm P)}/\sum(1/C_{(P+1)})(x_a+x_b+\ldots+x_p+\ldots+x_q)^{K(Z\pm S\pm P+1)}=\{X\}^{K(Z\pm S-P)}$

for the same reason: iterations can be iterated sequentially (P=0, 1, 2, 3, 4, ... natural numbers). After infinite (Z) iterations, each level combination

get: $\{X\}^{K(Z\pm S\pm p)}=[(1/C_{S\pm p})\prod(x_1\cdot x_2\cdot\ldots\cdot x_p\cdot\ldots\cdot x_q)]^{K(Z\pm S\pm p)}$

$/\ (1/C_{S+p})\sum(\prod x_1^k+\prod x_2^k+\ldots+\prod x_p^k+\ldots+\prod x_q^k)^{K(Z\pm S+p)}$

$\cdot\ (1/C_{S-P})\sum(\prod D_1^k+\prod D_2^k+\ldots+\prod D_p^k+\ldots+\prod D_q^k)^{K(Z\pm S-p)}$

$=\{X_0\}^{K(Z\pm S-p)}\cdot\{D_0\}^{K(Z\pm S+p)}$; (1.7)

In particular, the concept of "average" can be used without compromising all combinations so that the coefficients are constant and the average is the same.

The "reciprocal mean and positive mean" of the prime function form the logarithm of the circle

The equation (1.6) is used to further derive the reciprocity of each level (reciprocal law) to form the logarithm of the circle.

heve : $\{X\}^{K(Z\pm S\pm p)}=\{X_0\}^{K(Z\pm S-p)}\cdot\{D_0\}^{K(Z\pm S+p)}$

$\{X\}^{K(Z\pm S\pm p)}=\{X_0\}^{K(Z\pm S-p)}\cdot[\{D_0\}^{K(Z\pm S+p)}/\{D_0\}^{K(Z\pm S\pm p)}]\cdot\{D_0\}^{K(Z\pm S\pm p)}$

$=(1-\eta^2)^{K(Z\pm S\pm p)}\cdot\{D_0\}^{K(Z\pm S\pm p)}$ (1.8)

$0\leq(1-\eta^2)^{K(Z\pm S\pm p)}=\{D_0\}^{K(Z\pm S\pm p)}/\{D_0\}^{K(Z\pm S\pm p)}]\leq 1$ (1.9)

where: $\{X_0\}^{K(Z\pm S-p)}=\{X\}^{K(Z\pm S\pm p)}/\{X_0\}^{K(Z\pm S-p)}$

The formulas (1.8) and (1.9) reflect the multiplication of infinite prime numbers, which consists of a complete "reciprocal mean and positive mean", which is developed between the infinite series of logarithms [0~1].

Prime NumberTheorem ~ "large O of 1" ~ Unit circle logarithm

In 1737, L.Euier published a famous formula.

$\zeta(S)=(\sum n^{-S})^{+1}=\prod(1-P^{-S})^{-1}$; or $\zeta(S^{-1})=(\sum n^{-S})^{-1}=\prod(1-P^{-S})$; (2.1)

where P traverses all prime numbers. The Riemann function is precisely combined with the prime number. In other words, use

This prime number multiplication can prove that the prime number has an infinite number.

The prime number theorem: Gauss-Lehrende elaborates ($\pi(x^{-S})=x/\ln x$). Most of the related discussions are based on the assumption of GRH. Such as logarithmic integral: $Li(x)=\int 1/\ln(t)dt$; gamma function; $\zeta(s)\Gamma(z)= \int (u^{z-1})/(e^{u-1})du$; Dirichlet L The function $L(s,x) =\sum X(n)/n^s$ ($Re(s)\geq 1$).

Since 1896, people have undoubtedly determined the ~ fold of $\pi(n)\sim Li(x)$, and the closer N is infinitely enlarged, the closer$\pi(n)$is to $Li(x)$. Some people have calculated $\pi(n)-Li(x)\leq 1$; but some people have calculated the behavior of$\pi(n)-Li(x)\leq 1$; Mobius μ function and M function (accumulated value of μ) Closely related to $\zeta(S)$.

"error analysis" items and limits

One of the conjectures of Riemann's conjecture is "How many prime numbers are less than a given value?". The most valuable prime theorem $O(\sqrt{x}\ ln x)$. It does not have the premise stated in traditional number theory: "If the Riemann function is established, then...".

In 1901, von Koch proposed $O(\sqrt{x}\ ln x)$. In the study of modern number theory: when $(l,k)=1$, in the arithmetic sequence $L+x_n$ (n=1,2,3,…), the prime number not exceeding x numbers is$\pi(x,k,l)$, Then there is

$$\pi(x,k,l),=(1/\Phi(k)\ Li(x)+O(\sqrt{x}\ ln x) \qquad (2.2)$$

In equation (2.2), $O(\sqrt{x}\ ln x)$ is called the "large O of 1" symbol and the Mobius function.

Definition of "large O of 1": If the size of function A never exceeds a fixed multiple of function B for a sufficiently large argument, then function A is the large O of function B.

PNT (Principal Theorem) another popular expression $O(x^{(1/2)+\varepsilon})$ is the evolution of Von ·Koch $O(\sqrt{x}\ ln x)$.

$$O(x^{(1/2)+\varepsilon}) = Li(x) - \pi(x,), \qquad (2.3)$$

Here (ε) is a "large O of 1" and consists of a certain modulus function value.

In September 2018, the British mathematician Atia believed that the ζ function had a fixed modulus function value (1/137). This paper believes that this is not correct and should be a relatively variable module function value (proven later).

In 1914, J.E. Littlewood proved that $O(x^{(1/2)+\varepsilon})\geq 0$; and this symbol would turn over and over. Breaking through the industry, one person thinks that $O(x^{(1/2)+\varepsilon})\leq 0$;

In 1933, South Africa's Sanlay Skewes proved that the first arbitrary flipping of x is not greater than... no greater than e97 power. The current Schutz number is no more than $1.4*10^{316}$. It reflects "be careful when dealing with infinity." But (ε) no matter how small (large), there is an error term$\varepsilon(x)=(1/2)[Li(x)-\pi(x)]$. which cannot be eliminated. I don't know what kind of error function it should be. Many mathematicians have devoted their energies to research (ε) and have no satisfactory results.

At present, $O(x^{(1/2)+\varepsilon})$of the traditional number theory "error analysis", the best result [4] (ε) is "large O of x". "How does the big O of x" go to the" big O of 1" has not been solved yet. This can be verified by the "circle logarithmic equation".

Verification: You can't lose the different premise of traditional number theory. "If the Riemann function is established, then...". If the Riemann function does not hold, then many parts of the number theory have to be reinstated.

Assume: Li(x) (logarithmic integral) and$\pi(x)$ (the prime number theorem) be different prime distribution functions, $\varepsilon(x)=(1/2)[Li(x)-\pi(x)],\varepsilon(x)=(1/2)[Li(x)-\pi(x)]$ using

Bayesian relativity principle, Einstein's theory of relativity and set theory to expand into circular logarithm theory,
heve：

$$\begin{aligned}(1-\eta^2)^{K(Z\pm S\pm p)} &= \{ [Li(x)-\pi(x)]/[Li(x)+\pi(x)]\}^{K(Z\pm S\pm p)} \\ &= \{[\varepsilon (x_0)-\pi(x)]/\varepsilon (x_0)\}^{K(Z\pm S\pm p)} \\ &=\{[Li(x)-\varepsilon(x_0)]/\varepsilon(x_0)\}^{K(Z\pm S\pm p)}; \qquad (2.4)\end{aligned}$$

$$\begin{aligned}&O(x^{(1/2)+\varepsilon})^{K(Z\pm S\pm p)}\sim\varepsilon(x)^{K(Z\pm S\pm p)} \\ &= \{(1/2)[Li(x)-\pi(x)]/(1/2)[Li(x)+\pi(x)]\cdot(1/2)[Li(x)+\pi(x)]\}^{K(Z\pm S\pm p)} \\ &= (1-\eta^2)^{K(Z\pm S\pm p)}\ \varepsilon (x_0)^{K(Z\pm S\pm p)}\ ; \qquad (2.5)\end{aligned}$$

$$0\leq(1-\eta^2)^{K(Z\pm S\pm p)}\leq 1;\quad K=(+1,0,-1)\ ; \qquad (2.6)$$

Equation (2.5) proves that $\varepsilon(x)^{K(Z\pm S\pm p)}$ is stable, and $\varepsilon(x_0)$ is a constant modulus of the $(1-\eta^2)^{K(Z\pm S\pm p)}$prime number distribution of each level. - Specify the average of the prime distribution function before a certain value.

Here, $O(x^{(1/2)+\varepsilon})$is assumed to be $x^{(1/2)}$, and $\varepsilon(x)^{K(Z\pm S\pm p)}$ can only be "large O of x". Under the two kinds of infinite prime distributions, the positive and negative property errors tend to be($\varepsilon(x)^{K(Z\pm S\pm p)}$), However, $(\varepsilon)^{K(Z\pm S\pm p)}\neq 0$ does not ensure that it is all on the($x^{(1/2)}$) critical line.

In 1976, Hungarian number theory expert Paul Turan was still whispering "big O of 1" when he was dying of cancer. This kind of research on the theory of numbers is awe-inspiring. Reflecting the "big O of 1" (the distribution and value of the infinity prime between 0 and 1) is a key issue in number theory.

Applying "unit circle logarithm" in number theory to achieve zero error expansion

In 2013, the American Chinese number scientist Zhang Yitang applied the concept of set theory. Under the premise of not relying on unproven guess, it is found that there are infinite pairs of twin prime numbers, the interval is less than 70 million (equivalent to $\varepsilon(x_0)^{K(Z\pm S\pm p)}$=70 million, a constant modulus) The twin prime number formula, although the formula still has errors under infinite conditions, it has taken a big step on the road to the twin prime guess problem.

Definition: logarithm of unit circle ": Each sub-item is obtained by dividing it from its own total project,Features: Ensure that the values, positions and distribution methods of the sub-items inside the unit body are unchanged.

Proof of development: This article is not important for whether the Riemann function is established or not. Proof is as follows:

It consists of the complete "reciprocal mean and positive mean" of the prime number multiplication, which is given by Euler's formula:

$$\zeta(S)^{-1} =\sum(n^{-S})^{-1}=\prod(1-P^{-S}),$$

Assume：

$\prod(1-P_i^{-S}) = (1-P_1^{-S})(1-P_2^{-S}) \ldots (1-P_p^{-S}) \ldots (1-P_q^{-S}) \in \{P_H\}]^{K(Z\pm S\pm p)}$

heve :

$\{(1-P^{-S})_1+(1-P^{-S})_2+\ldots+(1-P^{-S})_p+\ldots+(1-P^{-S})_q\}^{K(Z\pm S)}=\sum\{1-P_i\}^{K(Z\pm S)} =\{P_H\}]^{K(Z\pm S\pm p)}$,

or: $\{(P^{-S})_1+(P^{-S})_2+\ldots+(P^{-S})_p+\ldots+(P^{-S})_q\}^{K(Z\pm S)}=\sum\{P_i\}^{K(Z\pm S)} =\{P_H\}]^{K(Z\pm S\pm p)}$,

or:

$(P)_1\cdot(P)_2\cdot\ldots\cdot(P)_p\cdot\ldots\cdot(P)_q\in\prod\{P_i\}^{K(Z\pm S)}=\{P_H\}]^{K(Z\pm S\pm p)}$,

make :

$(1-\eta_H^2)^{K(Z\pm S\pm p)}= [(P_i^{-S}) /\{P_H\}]^{K(Z\pm S\pm p)}$,

(1) Topology and probability expansion on the logarithmic plane (ie the combination of the square of the prime real part and the square of the imaginary part) (1) Topology and probability expansion on the logarithmic plane (ie the combination of the square of the prime real part and the square of the imaginary part)

heve:

$$(1-\eta_H^2)^{K(Z\pm S)}=[\sum\{P_i^2\}/\{P_H\}]^{K(Z\pm S)}$$
$$= (1-\eta_1^2)^{K(Z\pm S\pm 1)}+(1-\eta_2^2)^{K(Z\pm S\pm 2)} +\ldots+ (1-\eta_p^2)^{K(Z\pm S\pm p)} +\ldots+ (1-\eta_q^2)^{K(Z\pm S\pm q)}$$
$$= \{1\}^{K(Z\pm S)} ; \quad (3.1)$$

(2) Topology and probability expansion on the logarithmic axis

$$(\eta_H)^{K(Z\pm S)}=[\sum\{P_i\}/\{P_H\}]^{K(Z\pm S)}$$
$$= (\eta_1)^{K(Z\pm S\pm 1)}+(\eta_2)^{K(Z\pm S\pm 2)} +\ldots+ (\eta_p)^{K(Z\pm S\pm p)} +\ldots+ (\eta_q)^{K(Z\pm S\pm q)}$$
$$=\{1\}^{K(Z\pm S)} ; \quad (3.2)$$

Proof: In the traditional number theory, the quantitative statistical workload of infinite prime numbers is too large, using the common logarithm log10, or the natural logarithm of ln e, or the (man-made, natural) randomly distributed count segment P_i value, with subscript (10, e , P) means:

For example: $\{P_H\}^{K(Z\pm S)}$ is the sum of the sub-items of the prime number before a certain value is known.

$(log10)_1$^$(log10)_2$^…^$(log10)_p$…^$(log10)_q=\sum\{\prod P_i\}^{K(Z\pm S)}$,

$(lne)_1$^$(lne)_2$^…^$(lne)_P$…^$(lne)_q=\sum\{\prod P_i\}^{K(Z\pm S)}$,

get : $(1\eta_H^2)^{K(Z\pm S)}=[\sum\{\prod P_i\}_{(10,e,P)}/\{P_H\}_{(10,e,P)}]^{K(Z\pm S)}=\{1\}_{(10,e,P)}^{K(Z\pm S)}$; (3.3)

In the formula: $(1-\eta_H^2)^{K(Z\pm S\pm p)}$ is called the logarithm of the unit circle, which is called the first one gauge invariance.

heve $\varepsilon(x)^{K(Z\pm S\pm p)}=O(x^{(1/2)+\varepsilon})$

$=(1-\eta^2)^{K(Z\pm S\pm p)}\cdot(1-\eta_H^2)^{K(Z\pm S\pm p)}\ \varepsilon(x)^{K(Z\pm S\pm p)}$; (3.4)

Equation (3.4) $\varepsilon(x)=(\varepsilon(x_H)^{K(Z\pm S\pm p)})=(1-\eta_H^2)^{K(Z\pm S\pm p)}=1$ for each level $O(x^{\varepsilon})$; $\varepsilon=0$; becomes "big O of 1", and there is proof that $O(x^{(1/2)+\varepsilon})$ does not need to assume the $(x^{(1/2)})$premise, and $(x^{(1/2)})=(1-\eta^2)^{K(Z\pm S\pm p)}=(1/2)^{K(Z\pm S\pm p)}$. Here, the stability of the prime distribution in the unity of [0~1] and the fact that the zero error is on$(x^{(1/2)})$ are reflected.

ζ function and circular logarithmic equation

There is a famous theorem about the Emilet matrix, which says that "all eigenvalues of the Emilet matrix are real numbers", from which "Emilt matrix and ζ function operator eigenvalues and all coefficients of polynomials are derived. They are all real numbers." The balanced polynomial coefficients have a regularized distribution form, and the coefficient distribution rule is consistent with the "Yanghui-Pascal triangle distribution".

With the above preparation, we study the regularization coefficient polynomial composed of Riemann's function to encounter the "reciprocal function" $\{X\}^{K(Z-S)}$ with the prime number as the independent variable, and the balanced prime function as the "positive number function" $\{D\}^{K(Z+S)}$.

The polynomial regularization coefficient divided by the corresponding combination form, get the average

Infinite prime polynomials contain prime numbers $\{a,b,\ldots p,\ldots,q\}^{K(Z\pm S)}\in\{X\}$, with infinite prime numbers in any finite prime S range, and various non-repeating combination sets form polynomials (items Order, calculus). The prime infinite regularization combination becomes a polynomial term (or calculus order) expressed by a power function Z=K(Z±S±N±P)

heve :

$$\{X_0\}^{K(Z-S)}=\{D_0\}^{K(Z+S)}$$
$$= \sum[(1/C_{(S\pm p)})^K\{\prod(x_a^K x_b^K\ldots x_p^K\ldots x_q^K)^K +\ldots\}]^{K(Z\pm S)} ;$$
$$\{X_0\}^{K(Z\pm S\pm P)}= x^{K(Z\pm S\pm 0)}+Bx^{K(Z\pm S\pm 1)}+\ldots+Px^{K(Z\pm S\pm p)}+\ldots+Qx^{K(Z\pm S\pm q)}$$
$$= (1/C_{(S\pm 0)})^K x^{K(Z\pm S\pm 0)}+(1/C_{(S\pm 1)})^K x^{K(Z\pm S\pm 1)}+\ldots$$
$$+ (1/C_{(S\pm p)})^K x^{K(Z\pm S\pm p)}+\ldots+(1/C_{(S\pm q)})^K x^{K(Z\pm S\pm q)}$$
$$= \left|\begin{matrix}\{(1/C_{(S\pm 0)})^K (\prod x_i^K)\}^{K(Z\pm S\pm N\pm 0)}\\ \{\sum(1/C_{(S\pm 1)})^K(\sum x_1)^K\}^{K(Z\pm S\pm N\pm 1)}\\ \{\ldots\ldots\}\\ \{\sum(1/C_{(S\pm p)})^K(\prod x_p)^K\}^{K(Z\pm S\pm N\pm p)}\\ \{(1/C_{(S\pm q)})^K(\prod x_q)^K\}^{K(Z\pm S\pm N\pm q)}\end{matrix}\right|$$
$$= x_{01}^{K(Z\pm S\pm 0)}+x_{02}^{K(Z\pm S\pm 1)}+\ldots+x_{0p}^{K(Z\pm S\pm p)}+\ldots+x_{0q}^{K(Z\pm S\pm q)} ;$$

(4.1)

here, the item sequence combination of the polynomial elements is explained:

There are: item order Item sequence

(1)、0 item order (p= Z±S±0), $C_{(S-0)}=1$: The independent variable is fully primed and multiplied.

heve :

$\{x_0\}^{K(Z\pm S-0)}= \{D_0\}^{K(Z\pm S+0)} = [(1/C_{(S\pm 0)})^K[\prod(x_a^K x_b^K\ldots x_p^K\ldots x_q^K)^K]^{K(Z\pm S\pm 0)}$; (4.2)

(2)、1 item order (p=Z±S±1), $C_{(S-1)}=S$: Prime number (1)-(1) continuous combination

(called linear equation term)

heve :

$\{x_0\}^{K(Z\pm S-1)}=\{D_0\}^{K(Z\pm S+1)}=\sum(1/C_{(S\pm 1)})^K[x_a^K+ x_b^K+\ldots+x_p^K+\ldots+x_q^K]^{K(Z\pm S\pm 1)}$; (4.3)

(3)、2 item order (p=Z±S±2), $C_{(S-2)}=S(S-1)/2!$, Prime number (2)-(2) combinationheve : $\{x_0\}^{K(Z\pm S-2)}=\{D_p\}^{K(Z\pm S-0)}=\sum C_{(S\pm 2)})^K\{\prod(x_ax_b)^K+\ldots\}^{K(Z\pm S\pm 2)}$; (4.4)

(4)、p item order (p=Z±S±p), $C_{(S-p)}=S(S-1)(S-2)(S-P)/P!$: Prime number "(p)-(p) combination".

heve :

$\{x_0\}^{K(Z\pm S-p)} = \{D_p\}^{K(Z\pm S+p)} = \sum(1/C_{(S\pm p)})^k\{\prod(x_a x_b \ldots x_p)^K + \ldots\}_p^{K(Z\pm S\pm p)}$; (4.5)

(5)、q item order (p=Z±S±q), $C_{(S-q)}=S(S-1)(S-2)(S-q)/q!$: Prime number "(q)-(q)combination".

heve :

$\{x_0\}^{K(Z\pm S-q)} = \{D_q\}^{K(Z\pm S+q)} = \sum(1/C_{(S\pm q)})^K[\prod(x_a x_b \ldots x_p \ldots x_q)^K + \ldots]_q^{K(Z\pm S\pm q)}$; (4.6)

(6), D balance term order(p=(Z±S), $C_{(Z+S)}=1$ is known as a holographic multiplicative combination;

heve :

$\{x_0\}^{K(Z\pm S-0)} = \{^{KS}\sqrt{\prod X_{(ab\ldots p\ldots q)}}\}^{K(Z-S)}$;
$\{D_0\}^{K(Z\pm S+0)} = \{^{KS}\sqrt{\prod D_{(ab\ldots p\ldots q)}}\}^{K(Z+S)} = \{^{KS}\sqrt{D}\}^{K(Z-S)} = D$; (4.7)

(7), Prime polynomial regularization coefficient sum Prime polynomial regularization coefficient sum

$\sum(1/C_{(Z\pm S)})^{K(Z\pm S)} = C_{(S-0)}+C_{(S-1)}+\ldots+C_{(S-p)}+\ldots+C_{(S-q)}+C_{(S+0)} = \{2\}^{K(Z\pm S)}$; (4.8)

(8), The regularized distribution of the combined coefficients conforms to the Yang Hui-Pascal triangle distribution.

$C_{(Z\pm S+N)}=C_{(Z\pm S-N)}$; (4.9)

(9), In general, $\{D\}\neq\{x\}^{K(Z\pm S)}$ after extracting the logarithm of the circle, obtain equilibrium (or relative balance) $\{D\}=\{x\}^{K(Z\pm S)}$;

among them : $\{D\} = \{D_0\}^{K(Z+S)}$; Discrete state statistical calculation ; (4.10)

$\{X\} = \{X_0\}^{K(Z-S)} = \{^{KS}\sqrt{D}\}^{K(Z-S)}$; Mathematical analysis of entangled states; (4.11)

The combination of prime polynomial elements has a natural number unity, and the power dimension of the sum of the regularization coefficients presents the expansion and traversal of the natural number $\{2\}^{K(Z\pm S)}$, ensuring zero error expansion of the unit body function.

Equations (4.1)~(4.11) are clearly consistent with the Riemannian function. Combining the reciprocal circular logarithm to ensure the convergence of the function by K=(+1,0,-1). The (K) property function controls the convergence of the function so that the inverse harmonic function does not spread.

Combined set expansion of prime polynomials

heve :

$$Ax^{K(Z\pm S\pm N\pm 0)}+Bx^{K(Z\pm S\pm N\pm 1)}+\ldots+Px^{K(Z\pm S\pm N\pm p)}+\ldots+Qx^{K(Z\pm S\pm N\pm q)}\pm D$$
$$= C_{(S\pm 0)}x^{K(Z\pm S\pm N+0)}D_0^{K(Z\pm S\pm N+0)}+C_{(S\pm 1)}x^{K(Z\pm S\pm N+0)}D_0^{K(Z\pm S\pm N+1)}+\ldots$$
$$+C_{(S\pm p)}x^{K(Z\pm S\pm N-p)}D_0^{K(Z\pm S\pm N+p)}+\ldots+C_{(S\pm q)}x^{K(Z\pm S\pm N-q)}D_0^{K(Z\pm S\pm N+q)}\pm D$$
$$= \{x_0\pm D_0\}^{K(Z\pm S\pm N)}$$
$$= (1-\eta^2)^Z\{0,2\}^{K(Z\pm S)}\{D_0\}^{K(Z\pm S\pm N)}; \quad (5.1)$$

and :

$$(1-\eta^2)^Z \sim (\eta)^Z = \{^{KS}\sqrt{D/x_0}\}^Z$$

$$= \left|\begin{matrix} \{^{KS}\sqrt{D/x_0}\}^{K(Z\pm S\pm N\pm 0)} \\ \{^{KS}\sqrt{D/x_0}\}^{K(Z\pm S\pm N\pm 1)} \\ \{\ldots\ldots\} \\ \{^{KS}\sqrt{D/x_0}\}^{K(Z\pm S\pm N\pm p)} \\ \{^{KS}\sqrt{D/x_0}\}^{K(Z\pm S\pm N\pm q)} \end{matrix}\right|$$

$$= \left|\begin{matrix} (1-\eta^2)^{K(Z\pm S\pm N\pm 0)} & 0 & 0 \ldots 0 \ldots 0 \\ 0 & (1-\eta^2)^{K(Z\pm S\pm N\pm 1)} & 0 \ldots 0 \ldots 0 \\ \{\ldots\ldots\} & & \\ 0 & 0 \ldots (1-\eta^2)^{K(Z\pm S\pm N\pm p)} & \ldots 0 \ldots 0 \\ 0 & 0 & 0 \ldots 0 \ldots (1-\eta^2)^{K(Z\pm S\pm N\pm q)} \end{matrix}\right| \quad (5.2)$$

$$(1-\eta^2)^{K(Z\pm S)} = \{^{KS}\sqrt{D}\}^{K(Z-S)}/\{X_0\}^{K(Z+S\pm N)}$$
$$= \sum(1/C_{(Z-S)})^{-1}\{^{KS}\sqrt{\prod X_{(ab\ldots p\ldots q)}}^{K(Z-S-P)}+\ldots\}$$
$$/\sum(1/C_{(Z+S)})^{+1}\{D_{(ab\ldots p\ldots q)}\}^{K(Z+S+P)}+\ldots\}^{K(Z+S\pm N)}$$
$$= [\{^{KS}\sqrt{D}\}/\{D_0\}]^{K(Z\pm S\pm N)}; \quad (5.3)$$
$$0 \leq (1-\eta_D^2)^{K(Z\pm S\pm N)} \leq \{1\}^{K(Z\pm S\pm N)}; \quad (5.4)$$

get: isomorphic logarithm (ie polynomial isomorphic time calculation) $(1-\eta_D^2)^{K(Z\pm S\pm N)}$ Called the second norm invariance.

$$(1-\eta^2)^{K(Z\pm 0)} \sim (1-\eta^2)^{K(Z\pm 1)} \sim \ldots \sim (1-\eta^2)^{K(Z\pm p)} \sim \ldots \sim (1-\eta^2)^{K(Z\pm q)}; \quad (5.5)$$

(1) Formulas (5.1)-(5.5) also prove

Small balance zero : $\{x_0-D_0\}^{K(Z\pm S\pm N)} = (1-\eta^2)^Z\{0\}^{K(Z\pm S)}\{D_0\}^{K(Z\pm S\pm N)}$; (5.6)

Big balance zero : $\{x_0+D_0\}^{K(Z\pm S\pm N)} = (1-\eta^2)^Z\{2\}^{K(Z\pm S)}\{D_0\}^{K(Z\pm S\pm N)}$; (5.7)

In particular, the size zero balance cancels the "imaginary" "i crutches" and becomes a realistic combination of entities, conveniently expanding into infinite dimensional polynomials. The first-order (real part) of the log logarithm factor is equivalent to the second-order (re-imaginary part), and thus the "i cane" is also eliminated..

(2) The value of the crossing between the level of the prime function (including the value of the calculus order) (the sum of the total coefficients of the polynomial)

$(1-\eta^2)^{K(Z\pm S\pm \Delta N)} = (1-\eta^2)^{K(Z\pm S)} \cdot (1-\eta^2)^{K(\pm\Delta N)}$ (5.8)

$(1-\eta^2)^{K(\pm\Delta N)} = \{2\}^{K(\pm\Delta N)}$; (5.9)

Among them: ΔN = 1, 2, 3, ... natural number. (called qubit on the computer, the order value in calculus).

Where: the polynomial power function is a set of Z=K(Z±S±N±P), (Z) represents the completeness of the infinite prime algebraic closed chain, and (±S±N) represents the finite finite number of complex-dimensional subdimensions within the closed set of populations, (±P) All prime numbers do not repeat the combined set $\{X\}^{K(Z\pm S\pm P)}$. { } indicates a combination set. "~" means equivalent and time isomorphism. (Note: The above formula (5.2) formula matrix or horizontal expression means no change.)

The complex zero distribution of the ζ function and the logarithmic equation

We have encountered many functions in mathematics, the most common being polynomials and trigonometric functions. Riemann has developed it into the entire complex plane, and the complex variable s contains a lot of information. As in the case of polynomials, the information of a function is mostly contained in the information of its zero point. Therefore, the zero point of the Riemann function becomes a top priority for everyone.

here are two types of zeros, one is the real zero at s=-2, -4,...-2n,..., called the ordinary zero: one is the complex zero.

Riemann's conjecture is that the real part of these complex zeros is (1/2), that is, all complex zeros are on the {1/2}Z line (hereafter called the critical line). Historically, finding the zero of a polynomial, especially the complex root of an algebraic equation, is not a simple matter.

In 1914, Hardy first proved that there were infinite points on this critical line. In 1981, an inspection of 200 million ζ(s)=0 was established by electronic computers. In 1975, Levinson proved that NO(T) ≥ 0.3474N(T). In 1980, China's Lou Shituo and Yao Qi proved that NO(T)≥0.35N(T). 10 years ago we knew that there was (2/5) on the critical line of this complex variable. This paper will prove that the abnormal zero point (1/2) is (2.5/5) on the critical line of this complex variable function, that is, the infinite zero point is 100% completely on the critical line of the ζ function.

The core of the fourth chapter is to convert the ζ function into prime multiplication (Eulerian formula); the prime multiplication transforms from a combination set to a prime polynomial; the principle of relativity converts a prime polynomial into a log-logarithmic equation with no specific prime content.

heve :

$\{X\}^{K(Z\pm S\pm p)}=(1-\eta^2)^{K(Z\pm S\pm p)}\{X_0\}^{K(Z\pm S\pm p)}$; （6.1）

$0\le\prod(1-\eta^2)^{K(Z\pm S\pm p)}=\sum(1-\eta^2)^{K(Z\pm S\pm p)}\le 1$; （6.2）

ζ function and property logarithm

According to the inverse law of circular logarithm, you can use: the total function of each function (including the combined form) of the ζ function and the circular log, divided by the average value, you can get the positive and negative (odd logarithm) and the positive and negative pairs. Number (even logarithm)

Assume**:**

$\{x_{0H}\}^{K(Z\pm S\pm P)}=\sum(1/C_{(S\pm P)})^K[(\prod x_i)+\ldots]^{K(Z\pm S\pm P)}$;

$\{x_{0i}\}=\sum(1/C_{(S\pm P)})^K[(\prod x_i)]^{K(Z\pm S\pm P)}$

heve : $\{x_{0H}/x_{0i}\}^{K(Z\pm S\pm P)}=(1-\eta_K^2)^{K(Z\pm S\pm p}$

Obtained: the parity of the logarithm of the property circle (K = +1, 0, -1) obtained from the logarithm of the isomorphic circle, which is called the logarithm of the property circle, and belongs to the third one normative.

There is an even function:

$\{x\pm D\}^{K(Z\pm S\pm P)}=(1-\eta^2)^Z\{0\}^{K(Z\pm S)}\{D_0\}^{K(Z\pm S\pm p)}$;

Satisfy:$(1-\eta_K^2)^{K(Z\pm S\pm p)}=\sum(1-\eta_K^2)^{K(Z\pm S-p)}+\sum(1-\eta_K^2)^{K(Z\pm S+p)}$; （6.3）

There are odd functions:

$\{x\pm D\}^{K(Z\pm S\pm P)}=(1-\eta^2)^Z\{2\}^{K(Z\pm S)}\{D_0\}^{K(Z\pm S\pm p)}$;

Satisfy:$(1-\eta_K^2)^{K(Z\pm S\pm p)}=(1-\eta^2)^{K(Z\pm S-p)}+(1-\eta^2)^{K(Z\pm S\pm 0)}+(1-\eta^2)^{K(Z\pm S\pm p)}$; （6.4）

$(1-\eta_K^2)^{K(Z\pm S\pm 0)}=\sum(1-\eta_K^2)^{K(Z\pm S-p)}+\sum(1-\eta_K^2)^{K(Z\pm S\pm p)}$; （6.5）

where: $(\eta_K^2)^{K(Z\pm S\pm p)}$ represents the topology, probability properties, or direction of the circle (plane, surface). $(\eta_K)^{K(Z\pm S\pm p)}$ represents the topology, the nature of the probabilistic property or the nature or direction of the line (axis, curve).

heve :

$(1-\eta^2)^{K(Z\pm S\pm p)}=[(1-\eta^2)^{K(Z\pm S\pm p\pm 0)}+(1-\eta^2)^{K(Z\pm S\pm p\pm 1)}+\ldots+(1-\eta^2)^{K(Z\pm S\pm p\pm p)}+\ldots+(1-\eta^2)^{K(Z\pm S\pm p\pm q}$ 6.6

The circular logarithm factor is the arithmetic four arithmetic operation:

heve :

$(\eta^2)^{K(Z\pm S\pm p)}=(\eta^2)^{K(Z\pm S\pm p\pm 0)}+(\eta^2)^{K(Z\pm S\pm p\pm 1)}+\ldots+(\eta^2)^{K(Z\pm S\pm p\pm p)}+\ldots+(\eta^2)^{K(Z\pm S\pm p\pm q)}]$ ， （6.7）

and :

$(\eta)^{K(Z\pm S\pm p)}=(\eta)^{K(Z\pm S\pm p\pm 0)}+(\eta)^{K(Z\pm S\pm p\pm 1)}+\ldots+(\eta)^{K(Z\pm S\pm p\pm p)}+\ldots+(\eta)^{K(Z\pm S\pm p\pm q)}]$ （6.8）

The limit of the ζ function and the logarithm of the circle

The Riemannian function and the limit of the logarithmic equation are another part of solving the Riemann conjecture.

heve :

$\prod(1-\eta^2)^{K(Z\pm S\pm N\pm p)}=\sum(1-\eta^2)^{K(Z\pm S\pm N\pm p)}=(0,1)$; （7.1）

Establish simultaneous equations

$(1-\eta^2)^{K(Z\pm S\pm N\pm p)}=(1-\eta^2)^{K(Z\pm S\pm N\pm p)}\cdot(1-\eta^2)^{K(Z\pm S\pm N\pm p)}=\{0,1\}^{(Z\pm S\pm N\pm p)}$; （7.2）

$(1-\eta^2)^{K(Z\pm S\pm N\pm p)}=(1-\eta^2)^{K(Z\pm S\pm N\pm p)}+(1-\eta^2)^{K(Z\pm S\pm N\pm p)}=\{0,1\}^{K(Z\pm S\pm N\pm p)}$; （7.3）

Solving simultaneous equations: Elementary algebra is easy to get the limit of Riemann's function and circular logarithm equation

$\prod(1-\eta^2)^{K(Z\pm S\pm N\pm p)}=\sum(1-\eta^2)^{K(Z\pm S\pm N\pm p)}=(1-\eta^2)^{K(Z\pm S\pm N\pm p)}=\{0,1/2,1\}^{K(Z\pm S\pm N\pm p)}$; （7.4）

By giving the non-normal zeros of the real part of the complex zero point on the critical line, with the infinite zero error fully developed, the real-complex function is relatively symmetric. The zero point is 100% {1/2}K (Z±S ±N±p);

that is:

$\zeta(x)=O(x^{(1/2)+\varepsilon}).(x^{(1/2)})=(1/2)^{K(Z\pm S\pm N\pm p)};(\varepsilon=x(+\varepsilon)=0)$; (7.5)

there by solving the real complex zero root problem of Riemannian function or algebraic equation.

This paper proves that the Riemannian function is guaranteed by the unit log logarithm, the isomorphic logarithm, the reciprocal circular logarithm (called the three one gauge invariance), and the circular logarithmic limit (and parallel/serial) combination. The distribution within its children can be uniform and non-uniform, continuous and discontinuous, symmetric and asymmetric, sparse and non-sparse, closed and unclosed regions, random and regular, and so on. The superiority of the algorithm of circular logarithm is that the unit internal sub-item is expanded in the unit body (physical "quantum") of $\{0 \text{ and } 1\}^{K(Z\pm S\pm p)}$, ensuring its position and data unchanged. , to meet the function and independence, privacy, to meet the blockchain requirements.

logarithmic analysis of Goldbach conjecture conjecture

In 1742, the Goldbach Problem proposed the conjecture that "the sum of any two large enough prime numbers is even."Euler's analysis of Goldbach's conjecture is divided into two categories: "Strong Goldbach Conjecture" and "Weak Goldbach Conjecture."

(1) Each pure even number ($n \geq 6$) can be expressed as the sum of two prime numbers ($n=p_1+p_2$); it belongs to"Strong Goldbach Conjecture".
(2) Each odd even number ($n \geq 9$) can be expressed as the sum of three prime numbers ($n=p_1+p_2+p_3$); it belongs to the"weak Goldbach conjecture".

According to Euler's thoughts on Goldbach's conjecture, the analysis of "odd conjecture" also has two kinds of "strong odd conjecture" and "weak odd conjecture".

Each pure odd number ($n \geq 3$) can be expressed as the sum of three prime numbers ($n=p_1+p_2+p_3$); it belongs to"strong odd number conjecture".

Each odd odd number ($n \geq 3$) can be expressed as the sum of two prime numbers (n=p1+p2); it belongs to the"weak odd number conjecture".

According to the reciprocal law of prime number multiplication, the reciprocal positive function (average value) and the reciprocal function (average value) will appear at the same time, where the sum of the sums is the sum of the positive numbers or the reciprocals.

In 1919, Buren transformed the "screening method" to prove that "each even number is the sum of two integers with no more than nine prime factors." Shortly referred to as "9+9". The Buren method can be similarly defined (a+b), and by reducing the size of (a and b) continuously, and then decreasing to 1+1, it also proves the Goldbach conjecture. With the method of Buren, the result of Goldbach's conjecture, the progress of the well.

In the 1920s, Hardy and Littiewood created the "circle method", and the equation ($n = p_1 + p_2 + p_3$) was obtained by using the integral interval (0~1). The sum of prime numbers. Called "odd conjecture"

In 1937, Venoladov transformed the traditional circle method and proved that each sufficiently large odd number ($n \geq 9$) is the sum of three prime numbers. How big is this "full size", Borozdin is calculated to be $3^{\wedge 315}$, and later improved to $e^{\wedge e^{\wedge 16.038}}$. From 2012 to 2013, France's Chalodhoheov fell to $10^{\wedge 30}$.

In 1924, Lademahai proved "7+7"; later there were "6+6", "5+5", "4+4"...

In 1955, with the help of Hua Luogeng, Wang Yuan proved "1+3", and before Pan Chengtong proved "1+5, 1+4",

In 1967, Chen Jingrun improved the screening method and proved "1+2". "The large even table is a prime number and a sum of no more than two prime numbers." .

In 2012, T.Tao of UCLA completely proved without the help of GRH: every pure odd number ($n \geq 3$) can be expressed as the sum of five prime numbers ($n=p_1+p_2+p_3+p_4+p_5$);

In particular, this paper considers Chen Jingrun's proof of "1+2" ($n=p_1+p_2p_3$), where "2" = (p_2p_3) can solve any two prime numbers using the infinite multivariate quadratic equation of elementary algebra (P_2, P_3). (P_2P_3) is equivalent to $(P_2{}^{\wedge-1}+P_3{}^{\wedge-1})^{\wedge-1}$ The sum of the reciprocal of the two prime numbers is an even odd number. That is to say, each even odd number can be expressed as the sum of the reciprocals of two prime numbers, and ",one prime number plus one even odd number is even number" is obtained. Facts Chen Jingrun has successfully proved the "weak Gothbach conjecture" in 1967, and also proved the "weak odd number conjecture" (each even odd number can be expressed as the sum of the two prime numbers). Here we apply the theory of circular logarithm to prove: add (see below).

So far, the study of Goldbach's conjecture did not use the Riemann conjecture, but the generalized Riemann conjecture to estimate.This article is here to prove the Goldbach conjecture (including the odd conjecture) using the non-normal zero of the circular logarithmic application ζ function.

Goldbach's conjecture is to say "two prime numbers add up". Under normal conditions, two sufficiently large prime numbers are not equal, expressed as two prime numbers $(a \pm b) = \{x \pm D\}$, because $(a \neq b)=[\{x_0 \neq D_0\}]^{K(Z\pm S)}$After the imbalance, $(1-\eta^2)^Z$ is extracted and converted to relative balance,

get: $\{x_0=D_0\}^{K(Z\pm S\pm N\pm p)}$; (8.1)

heve : $\{x\pm D)^{K(Z\pm S\pm N)} = Ax^{K(Z\pm S\pm N\pm 0)} + Bx^{K(Z\pm S\pm N\pm 1)} + \ldots + Px^{K(Z\pm S\pm N\pm p)} + \ldots + Qx^{K(Z\pm S\pm N\pm q)} \pm D$

$= C_{(S\pm 0)}x^{K(Z\pm S\pm N+0)}D_0{}^{K(Z\pm S\pm N+0)} + C_{(S\pm 1)}x^{K(Z\pm S\pm N+0)}D_0{}^{K(Z\pm S\pm N+1)} + \ldots + C_{(S\pm p)}x^{K(Z\pm S\pm N-p)}D_0{}^{K(Z\pm S\pm N+p)} + \ldots + C_{(S\pm q)}x^{K(Z\pm S\pm N-q)}D_0{}^{K(Z\pm S\pm N+q)} \pm D$

$=(1-\eta^2)^Z\{x_0 \pm D_0)^{K(Z\pm S\pm N)}$

$= (1-\eta^2)^Z\{0,2\}^{K(Z\pm S)}\{D_0\}^{K(Z\pm S\pm N)}$; (8.2)

In the formula (8.2), in (a+b) composed of two prime numbers, $a=\{x\}^{K(Z\pm S\pm N+p)}$;$b=\{D\}^{K(Z\pm S\pm N+p)}$, which proves that each prime number (a, b) can have a sum of 1 to infinity prime factors.

there is: small zero balance:

a-b) $=\{x-D)^{K(Z\pm S)}=(1-\eta^2)^Z\{0\}^{K(Z\pm S)}\{D_0\}^{K(Z\pm S\pm N)}$; (8.3)

large zero balance:

(a+b) $= \{x+D)^{K(Z\pm S)}=(1-\eta^2)^Z\{2\}^{K(Z\pm S)}\{D_0\}^{K(Z\pm S\pm N)}$; (8.4)

Equations (8.1) to (8.4) reflect the existence of a theory called circular logarithm. It can be proved that any composite number can be composed of infinite prime factors, and the sum of the last prime numbers can be summarized into two and three prime factors. The parity of the number of components.

Here, the abnormal zero $\{1/2\}^{-Z}$ applied by the Riemann conjecture proves that the Goldbach conjecture is established:

A prime polynomial established by any number of prime numbers. Further, the prime function can be normalized to any prime number (or composite number) such that each prime number has the same number of zeros (including abnormal zeros).

The reciprocity of the prime function proves that the prime number can be composed of a minimum of 2 (even) and 3 (odd) prime factors.

The abstract circle with no specific prime content is established by the prime polynomial to solve the " big O of 1" problem. The ζ function is between [0~1] of the logarithm of the circle (that is, the distribution and value of the infinite prime number between 0 and 1).

By $\prod(1-\eta^2)^{K(Z\pm S\pm N\pm p)}=\sum(1-\eta^2)^{K(Z\pm S\pm N\pm p)}$, indicating that the prime number congruence is an even number or The singularity can also be converted to a logarithmic circular logarithm or a singular circular logarithm.

a. The sum of two prime couples of arbitrary infinity can be expressed as infinitely pure even numbers.
b. The sum of the three prime singularities of any infinity can be expressed as an infinite singular even number.

CONCLUSION

This paper gives a lot of information and finds that prime multiplication can be a combination of reciprocal mean and positive mean, and establishes the logarithm theory. The realization of the circular logarithm theory proves that the Riemann conjecture has no hypothesis.

Through the ζ function, the unitary property of the circular logarithm theory $(1-\eta_H{}^2)^{K(Z\pm S\pm N\pm p)}$, isomorphism $(1-\eta_D{}^2)^{K(Z\pm S\pm N\pm p)}$, reciprocity ($1-\eta_K{}^2)^{K(Z\pm S\pm N\pm p)}$ three one gauge invariances, proved:

Any prime number (including prime factors) can be normalized to a prime number (or integer) within the same power dimension. That is, "the S-th power of the sum of the two S-th powers (S≥2) can be an integer solution" (prime, integer). (See also 2019 ICCM Conference Wang Hongxuan and Wang Yiping's paper "Based on the circular logarithm proof Fermat-Wills theorem does not hold")

The distribution of prime numbers is within the boundary of $[0,1]^{K(Z\pm S\pm N\pm p)}$, and $(1-\eta_H{}^2)^{K(Z\pm S\pm N\pm p)}=1$ is successfully achieved, forming " The large O of 1" (ie, the prime distribution problem between [0 and 1] and the infinite non-normal zero $\{1/2\}^{K(Z\pm S\pm N)}$ are on the critical line of completeness).

The infinite prime function $(1-\eta^2)^{K(Z\pm S\pm N)}$ limit is $\{1/2\}^{K(Z\pm S\pm N\pm p)}$,, that is, all non-trivial functions of the ζ function (including calculus) The real part of the zero point is {1/2}, and the infinite prime number has an infinite number of infinite non-normal zeros. Among them, the twin prime guess and the Goldbach conjecture (including the odd conjecture): both contain the non-trivial zeros of the Riemann conjecture: $\{1/2\}^{K(Z\pm S\pm N\pm p)}=\{0,1/2,1\}^{(Z\pm S\pm N\pm p)}$。(K=+1,0,-1)；

Unified: $W = (1-\eta^2)^{K(Z\pm S\pm N)}\cdot W_0$; （9.1）

$(1-\eta^2)^{K(Z\pm S\pm N)}=(1-\eta_D{}^2)^{K(Z\pm S\pm N\pm p)}\cdot(1-\eta_H{}^2)^{K(Z\pm S\pm N\pm p)}\cdot(1-\eta_K{}^2)^{K(Z\pm S\pm N\pm p)}$

$$= \left\{\begin{array}{l} (1-\eta_1{}^2)^{K(Z\pm S\pm N\pm 0)}\ \ 0\ \ 0 \dots 0 \dots 0 \\ \quad 0\ \ (1-\eta_2{}^2)^{K(Z\pm S\pm N\pm 1)}\ \ 0 \dots 0 \dots 0 \\ \quad \dots\dots \\ \quad 0\ \ \ 0 \dots (1-\eta_p{}^2)^{K(Z\pm S\pm N\pm p)} \dots 0 \dots 0 \\ \ 0\ \ 0\ \ \ 0 \dots 0 \dots (1-\eta_q{}^2)^{K(Z\pm S\pm N\pm q)} \end{array}\right\} \qquad (9.2)$$

$0\le(1-\eta^2)^{K(Z\pm S\pm N\pm p)}\le 1$; （9.3）

where: W,W_0 , and $\{X_0\}^{K(Z\pm S\pm N\pm p)},\{D_0\}^{K(Z\pm S\pm N\pm p)}$, representing any infinite unknown, any limited number of known infinite primes Dimensional prime algebraic clusters and mean values. $(1-\eta_D{}^2)^{K(Z\pm S\pm N\pm p)}\cdot(1-\eta_H{}^2)^{K(Z\pm S\pm N\pm p)}\cdot(1-\eta_K{}^2)^{K(Z\pm S\pm N\pm p)}$ .Three norms invariance

The circular logarithm reforms the traditional logarithm, traditional calculus and logical algebra into arithmetic four operations. Thus, the ζ function in the number theory application (there is no "error analysis" item) can achieve zero error "four operations without specific element content". As a mathematical algorithm, it can be ex性tended to the scientific theory and engineering application of multidisciplinary fields (algebra, geometry, numerical, life science, supercomputer, and topology, probability, chaos).

In practice, the theory of circular logarithm has solved a number of world mathematics problems. It is logical to show the "avenue to simplicity" of the logarithm of the circle, with powerful computational vitality and magical effects. It is expected to carry out the great unification of mathematics.

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