Original article

Proof of the Riemann hypothesis

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Abstract

It proved the Riemann hypothesis.
I use Eular and Riemann formula.

Introduction

$$\zeta(s) = \sum_{n=1}^{\infty} \frac{1}{n^s} \tag{1}$$

$$\zeta(s) = \frac{2^s}{2^s-1}\frac{3^s}{3^s-1}\frac{5^s}{5^s-1}\frac{7^s}{7^s-1}\cdots.. \tag{2}$$

$$\frac{\zeta(s)}{\zeta(1-s)} = \frac{(2\pi)^s}{2\Gamma(s)\sin(\frac{s\pi}{2})} \tag{3}$$

$$\frac{\zeta(s)}{\zeta(1-s)} = \frac{\pi^{-\frac{1-s}{2}}\Gamma(\frac{1-s}{2})}{\pi^{\frac{s}{-2}}\Gamma(\frac{s}{2})} \tag{4}$$

Discussion

(3) is Eular formula, from(3), calculate only the right side.

{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.49}=1.02256

{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.5}=1

{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.51}=0.97794

This formula is 1 only when a= 0.5 .
From this it can be seen that there is no zero point unless the real part is 0.5.
(s=a+bi)

(4) is Riemann formula, from(4), calculate only the right side.

{(π^((1 - s)/2 - s/2) Γ(s/2))/Γ((1 - s)/2)}, {s=0.48}=1.11348
{(π^((1 - s)/2 - s/2) Γ(s/2))/Γ((1 - s)/2)}, {s=0.49} =1.0552
{(π^((1 - s)/2 - s/2) Γ(s/2))/Γ((1 - s)/2)}, {s=0.495}=1.02723
{(π^((1 - s)/2 - s/2) Γ(s/2))/Γ((1 - s)/2)}, {s=0.499}=1.00539

{(π^((1 - s)/2 - s/2) Γ(s/2))/Γ((1 - s)/2)}, {s=0.5} =1

{(π^((1 - s)/2 - s/2) Γ(s/2))/Γ((1 - s)/2)}, {s=0.501}=0.994642
{(π^((1 - s)/2 - s/2) Γ(s/2))/Γ((1 - s)/2)}, {s=0.505}=0.973496
{(π^((1 - s)/2 - s/2) Γ(s/2))/Γ((1 - s)/2)}, {s=0.51} =0.947691
{(π^((1 - s)/2 - s/2) Γ(s/2))/Γ((1 - s)/2)}, {s=0.52}=0.898088

This formula is 1 only when a= 0.5 .
From this it can be seen that there is no zero point unless the real part is 0.5.
(s=a+bi)

And, There are zero points such as 0.5+i14.1347, 0.5+i21.022, 0.5+i25.0108 etc.

Certification complete.

References

1. Riemann, Bernhard (1859). “Ueber die Anzahl der Primzahlen unter einer gegebenen Grösse”.
2. Wi i m F. ench. “ nt o uction to Real Analysis”. Professor Emeritus. Trinity University. San Antonio, Tx, USA. ISBN 0-13- 045786-8.
3. E. Bombe i, “Problems of the millennium: The Riemann pothesis,”CL Y,(2000).
4. John Derbyshire, Prime Obsession: Bernhard Riemann and The Greatest Unsolved Problem in Mathematics, Joseph Henry Press,2003, ISBN 9780309085496.

☃～☃～☃～☃～☃～
I am a psychiatrist now and also a doctor of brain surgery before.

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I would like to receive an email. I will not answer the phone.

Currently 57 years old
Born on November 26, 1961
（**I am very poor of English. Almost all document are google-translation.**）
When converted to English by Google translation, it becomes cryptic to me.
But, I read letter by google translation.
In my case, if you translate it into English by google translation, I do not know what is written in my paper. For me, foreign languages such as English (actually not good at Japanese) is a demon.
As soon as it is translated into English, it turns into a cipher for me.

postscript

The cold when I found the first one is still continuing now and this may be my last post. I may have discovered another by surging my energy and it may not be counter example.
It may be written as a will.
I am writing this at the limit of power.
I write this with spitting blood.
I will post it in a hurry, as long as I have not done it before I die.