Original article

What is this singular point?
About Euler's formula
On Riemann hypothesis

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Abstract

On calculation by Euler 's formula(3), at least notice that the zero point of the real part is not on x = 0.5.
Using Euler 's formula, we found that at least the real part' s zero point is not x = 0.5 but about x = 0.115444. Moreover, the imaginary point is around i14.524.
And s=0.8355 +i39.
And s=0.1645 +i39.
And s=0.884556 +i14.524.
And s=0.115444 +i14.524
Also, replacing sin with cos, the imaginary part becomes zero.
I do not know at all whether the collapse of Riemann hypothesis or not?
In addition, books are printed as cos instead of sin.
Also, I have collected ζ on the left side.
In addition, (8) is Euler's formula found overseas, which is also a singular point in this. Also, I have collected ζ on the left side.

In this case, sin is printed instead of cos, but if sin and cos are exchanged, the zero point moves only from the real part to the imaginary part.

Introduction

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

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

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

$$\zeta(s)=\sum_{n=1}^{\infty}\frac{1}{n^s}(s=0.115444+i14.524) \tag{4}$$

$$\zeta(s)=\sum_{n=1}^{\infty}\frac{1}{n^s}(s=0.884556+i14.524) \tag{5}$$

$$\zeta(s)=\sum_{n=1}^{\infty}\frac{1}{n^s}(s=0.8355+i39) \tag{6}$$

$$\zeta(s)=\sum_{n=1}^{\infty}\frac{1}{n^s}(s=0.1645+i39) \tag{7}$$

$$\frac{\zeta(s)}{\zeta(1-s)}=2^s\pi^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s) \tag{8}$$

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.8355+i39}=
4.41481 × 10^-7 - 0.541988 i……..(11)
{2^s}(\pi)^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s)},{s=0.8355+i39}=

0.541988 + 4.41481×10^-7 i…….(11)
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.1645+i39}=
1.50291×10^-6 - 1.84506 i…..(12)
{2^s}(\pi)^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s)},{s=0.1645+i39}=
1.84506 + 1.50291×10^-6 i……(12)
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.884556+i14.524}=
4.14086×10^-9 + 0.724555 i….(13)
{2^s}(\pi)^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s)},{s=0.884556+i14.524}=
-0.724555 + 4.14086×10^-9 i….(13)
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.115444+i14.524}=
7.88766×10^-9 + 1.38016 i……(14)
{2^s}(\pi)^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s)},{s=0.115444+i14.524}=
-1.38016 + 7.88766×10^-9 i……(14)

When sin and cos are exchanged like (11)(12)(13) and (14), there are points where the real part and the imaginary part are completely exchanged.

Discussion

(3) is Euler 's formula,　Calculate only the right side.
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.5+i14.1347}
=-0.310547 - 0.950558 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.35+i14.1347}
=-0.275664 - 0.841515 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.36+i14.53}=
0.00839941 - 0.889241 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.352+i14.53}
=0.00827322 - 0.883299 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.353+i14.53}
=0.00828913 - 0.88404 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.32+i14.53}
=0.00774356 - 0.859925 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.23+i14.53}
=0.00606913 - 0.797445 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.10+i14.524}
=-0.000298385 - 0.715237 i

{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.11+i14.524}
= -0.000104712 - 0.721256 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.12+i14.524}
= 0.0000872365 - 0.727326 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.118+i14.524}
= 0.0000489889 - 0.726108 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.116+i14.524}
= 0.0000106696 - 0.724892 i
{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.115+i14.524}
= -8.51678×10^-6 - 0.724285 i

{\frac{2}{(2\pi)^s}\Gamma(s)\sin(\frac{s\pi}{2})},{s=0.115444+i14.524}=4.14086×10^-9 - 0.724555 i..........(11)
{\frac{2}{(2\pi)^s}\Gamma(s)\cos(\frac{s\pi}{2})},{s=0.115444+i14.524}=-0.724555 - 4.14086×10^-9 i............(11)
{2^s}(\pi)^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s)},{s=0.115444+i14.524}=-1.38016 + 7.88766×10^-9 i .....(12)
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.115444+i14.524}=7.88766×10^-9 + 1.38016 i ......(12)

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.509+i14.524}=0.00505138 + 0.992476 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.907+i14.524}=-0.000434938 + 0.711053 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.887+i14.524}=-0.0000469424 + 0.723072 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.897+i14.524}=-0.000240107 + 0.717037 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.883+i14.524}=0.0000298381 + 0.7255 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.884+i14.524}=0.0000106696 + 0.724892 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.885+i14.524}=-8.51678×10^-6 + 0.724285 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.8846+i14.524}=-8.40119×10^-7 + 0.724528 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.88458+i14.524}=-4.5636×10^-7 + 0.72454 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.88457+i14.524}=-2.64484×10^-7 + 0.724546 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.88456+i14.524}=-7.26086×10^-8 + 0.724552 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.884559+i14.524}=-5.34212×10^-8 + 0.724553 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.884557+i14.524}=-1.50465×10^-8 + 0.724554 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.884556+i14.524}=4.14086×10^-9 + 0.724555 i....(13)

{2^s}(\pi)^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s)},{s=0.884556+i14.524}=-0.724555 + 4.14086×10^-9 i....(13)

{2^s}(\pi)^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s)},{s=0.115444+i14.524}=-1.38016 + 7.88766×10^-9 i......(14)

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.115444+i14.524}=7.88766×10^-9 + 1.38016 i......(14)

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.8845561+i14.524}=2.22213×10^-9 + 0.724555 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.8845562+i14.524}=3.03393×10^-10 + 0.724554 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.8845563+i14.524}=-1.61534×10^-9 + 0.724554 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.88455632+i14.524}=-1.99909×10^-9 + 0.724554 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.88455629+i14.524}=-1.42348×10^-9 + 0.724554 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.88455621+i14.524}=1.11523×10^-10 + 0.724554 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.88455622+i14.524}=-8.03615×10^-11 + 0.724554 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.91+i39}=0.000337237 - 0.473063 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.9+i39}=0.000293419 - 0.481779 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.89+i39}=0.000249129 - 0.490656 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.82+i39}=-0.0000721736 - 0.557544 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.829+i39}=-0.000029925 - 0.548458 i
{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.834+i39}= -6.55475×10^-6 - 0.543474 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.8355+i39}=4.41481×10^-7 - 0.541988 i........(14)
{2^s}(\pi)^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s)},{s=0.8355+i39}=0.541988 + 4.41481×10^-7 i.......(14)

{2^s}(\pi)^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s)},{s=0.1645+i39}=1.84506 + 1.50291×10^-6 i

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.1645+i39}= 1.50291×10^-6 - 1.84506 i.....(15)
{2^s}(\pi)^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s)},{s=0.1645+i39}= 1.84506 + 1.50291×10^-6 i......(15)

{2^{s}\pi^{s-1}\sin(\frac{s\pi}{2})\Gamma(1-s) },{s=0.1645+i39}=

{2^s}(\pi)^{s-1}\cos(\frac{s\pi}{2})\Gamma(1-s)},{s=0.5+i14.1347}=-0.310547 + 0.950558 i
\sum_{n=1}^\infty \frac{1}{n^{2}}= 1.644934066848226......
\sum_{n=1}^\infty \frac{1}{n^{3}}=1.2020569031595942.....
\sum_{n=1}^\infty \frac{1}{n^{4}}= π^4/90=1.0823232....
\sum_{n=1}^\infty \frac{1}{n^{5}}= ζ(5)= 1.036927755....
\sum_{n=1}^\infty\frac{1}{n^{0.5+i14.1347}}= (3.13536×10^-6 - 0.0000196934 i) - ζ(0.5 + 14.1347 i, ∞ + 1)
\sum_{n=1}^\infty \frac{1}{n^{0.884556+i14.524}={n^(0.884556 + 14.524 i)}
\sum_{n=1}^\infty\frac{1}{n^{0.884556+i14.524}}=(0.27415 + 0.265264 i) - ζ(0.884556 + 14.524 i, ∞ + 1)   How is it calculated?

\sum_{n=1}^{1160}\frac{1}{n^s}   ,{s=0.884556+i14.524 }=0.417585 + 0.205239 i

\sum_{n=1}^{1160}\frac{1}{n^s}   ,{s=0.8355+i39 }=1.30578 - 0.0460892 i

Σ [n=1 to 3160] 1/n^(0.884556+14.524i)=
0.147668273591964640173041603857199160 3902 +
0.1449688638646365310395303623859124087275 i
≒0.14766827359196464017304160385719916039015986018230753556... +
0.14496886386463653103953036238591240872752133870059149488... i

Σ [n=1 to 9160] 1/n^(0.884556+14.524i)= sum_(n=1)^9160 1/n^(0.884556 + 14.524 i)≈0.3787414567926105263791381976439213621320 +
0.4326418640978970425108160048825872876879 i

sum_(n=1)^19160 1/n^(0.884556 + 14.524 i)≈
0.0676546832961621284296857985788544843431 +
0.3248497631891155898029646908647894604007 i

sum_(n=1)^29160 1/n^(0.884556 + 14.524 i)≈
0.0496200818078008973864439350258033384493 +
0.2871800934713501432437026712967815371332 i

sum_(n=1)^36000 1/n^(0.884556 + 14.524 i)≈
0.5052725100374843734022927603065283202181 +
0.2615256327490159060111108313838657704303 i

sum_(n=1)^46000 1/n^(0.884556 + 14.524 i)≈
0.0584778857341929547120125430907867989473 +
0.3654040694187186049450366007157308778778 i

sum_(n=1)^76000 1/n^(0.884556 + 14.524 i)≈
0.2422437935491971346822436394097029308440 +
0.5152127505595577863298145222022948371415 i

Σ [n=1 to 99000] 1/n^(0.884556+14.524i)=xx

Σ [n=1 to 9000] 1/n^(0.5+14.1347i)= sum_(n=1)^9000 1/n^(0.5 + 14.1347 i)≈
0.4892027248570404917210520513454271647 99 -
6.6898815663831310517510363869283465085 92 i

sum_(n=1)^19000 1/n^(0.5 + 14.1347 i)≈
8.5183959874365526259310001556288834739 53 +
4.7350212161721559588086642961887173961 33 i

sum_(n=1)^29000 1/n^(0.5 + 14.1347 i)≈
8.2696692698539629911568379229464129307 55 +
8.7513410957123218804008919565283191863 10 i

sum_(n=1)^39000 1/n^(0.5 + 14.1347 i)≈-
13.5879427992829544894356257076437485749 54 +
3.2142429170001221413550663677473777887 23 i

References

1) https://en.wikipedia.org/wiki/Riemann_hypothesis

☃～☃～☃～☃～☃～

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

(home)
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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.