

Riemann Hypothesis Original Proof

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ζ	0	1	i	j	k	$\langle . \rangle$	0
	λ	0	λ	λi	λj	λk	$\langle \lambda. , \rangle$
						$\langle \lambda. 0 \rangle$	
						$\langle \lambda. , \dots \rangle^2$	
					$\langle \lambda. k \rangle$		
			$\langle \lambda. j \rangle$				
		$\langle \lambda. i \rangle$					
	$\langle \lambda. 1 \rangle$						
$\langle \lambda. 0 \rangle$							

Graphical representation of showing the solutions through of the Riemann hypothesis using the eigenvalue multiplication on the quaternion numbers i, j, k with zeta function(ζ), where λ represents eigenvalue.

The ¹Riemann hypothesis is one of the mathematical enigma that have transcend through centuries and it is imperative that we have a solution to such unsolved mathematical hypothesis. Here, I bring to you my simple solution to the Riemann hypothesis.

With this formula of mine:

$$\zeta(s) \rightarrow \lambda(e^{-\#}) = 0$$

¹ Riemann hypothesis is unsolved problem among 7 problems of mathematic which were cited by CMI or Clay Mathematic Institute

Proposition:

According to David Hilbert and George Polya, they assert that based on the operator theory that: for a defined solution of the Riemann hypothesis, it must be based on an eigenfunction onto a finite field.

So, from this proposition, we can infer that the formula above satisfies the proposition. The "#", which I took as the "finite field", which is equipped with an Hamiltonian quaternions $(1, i, j, k)$. Then, the eigenvalue (λ) is the function that mapped onto the "finite field (#)" which is negative Euler constant (e-). (Note: the negative "-" on the finite field makes it "finite". So, it means, any number whether prime numbers or negative even integers that occupies the space of the "finite field (#)" is all-negative. Which recedes to zeros).

Taking a look at the table above which started at "0" and ended at "0", with an Hilbert space " $\langle \cdot \rangle$ " at the 6th-row of the eigenvalue table was as a result of "deliberately multiplying" the eigenvalue (λ) against the Hamiltonian quaternions and the Hilbert space (i.e., a number system that extends complex numbers).

From the table, if you check closely you would realize a deliberate spacing (gaps) between the values multiplied back, by the Hilbert space occupied with the eigenvalue with an ellipsis showing "continuum".

Now, to fully unbox the mathematical logic behind the new filled Hilbert spaces values. Let's try them out by multiplication by symmetry. Before that, the rows supposedly should have been "8 rows", we intentionally avoided that. Due to the fact that, the second-part was done at the "eighth row". So, the table will be "assumed as being "7 rows".

So, applying the symmetrical multiplication of the Hilbert space eigenvalues will be:

$$\langle \lambda \cdot 0 \rangle \Rightarrow \lambda \times 0 = 0 \times \lambda = 0$$

$$\langle \lambda, \dots \rangle^2 \Rightarrow \langle \lambda \times \infty$$

$$\lambda \times \lambda \times \infty \times \infty = \infty \times \infty \times \lambda \times \lambda$$

$$\frac{\infty}{\infty} = \frac{\infty}{\infty}$$

$$1 = 1$$

$$\lambda \times k = k \times \lambda$$

$$\frac{\lambda k}{\lambda k} = \frac{k \lambda}{k \lambda}$$

$$1 = 1$$

$$\lambda \times j = j \times \lambda$$

$$\frac{\lambda j}{\lambda j} = \frac{j \lambda}{j \lambda}$$

$$1 = 1$$

$$\lambda \times i = i \times \lambda$$

$$\frac{\lambda i}{\lambda i} = \frac{i \lambda}{i \lambda}$$

$$1 = 1$$

$$\lambda \times 1 = 1 \times \lambda$$

$$\frac{\lambda 1}{\lambda 1} = \frac{1 \lambda}{1 \lambda}$$

$$1 = 1$$

$$\lambda \times 0 = 0 \times \lambda$$

$$\frac{\lambda 0}{\lambda 0} = \frac{0 \lambda}{0 \lambda}$$

$$0 = 0$$

We take the results of the Hilbert space which:

$$(0,1,1,1,1,0) \Rightarrow (0,1, i, j, k, 0).$$

which implies the "7 rows" of the eigenvalue multiplication equipped in the "finite field" which represents the table that is taken as "#".

Now, to further explain this, let's try out the factorial of this Eigen numbers (0,1,1,1,1,0), whether it will give us "7" Which is; $0! + 1! + 1! + 1! + 1! + 1! + 0! = 7$.

So, these numbers are equivalent to the "7 rows" of the eigennumbers!

So, in the Beurling zeta-function proposition (circa. 1955) about Riemann hypothesis which states that the zeta-function has no zeros at the real greater than $1/p$ if and only if the function space in dense $L^{p(0,1)}$

But;

Taking it thisway, becomes;

Let's make "7" *implied an "upward dense space"*. While "L" is taken as the "lower dense space" So that the statement "dense" can have a proper mathematical definition which is taken as: (geometric identity-inequality).

That's:

$$7p(0,1,1,1,1,10) = (0,1, i, j, k, 0) \geq L^{p(0,1)}.$$

Note: the complex numbers (Hamiltonian numbers * *quarternions* * excluding the real number "1") which is (i, j, k) can/could be taken as either prime numbers or any of the negative even integers.

So, Beurling's proposition is better satisfied for this expression.

Since we now know the eigenvalues (numbers), we can go ahead compute on the exponent decreasing finite field "#". To check whether "7 rows" of the eigenvalues would yield "0" as follows:

$$e^{-\#} = e^{-0111110} = 0 \text{ or;}$$

$$e^{-\#} = e^{-7!} = 0$$

But,

$$e^{\#} = e^{0111110} \neq 0$$

But, equals to infinity (∞).

$$e^{\#} = e^{7!} \neq 0$$

But, equals to infinity (∞).

Going back to the initial equation posted above. The Riemann hypothesis is true. Which is:

$$\zeta(s) \rightarrow 7^p \geq L^p(e^{-0111110}) = 0$$

The eigen operator " λ " was replaced by " $7^p \geq L^p$ ".

*Now, to prove that my result is right, this can also lead to a new approximate value of Golden ratio (1.6181131101). By the eigenvalue (0111110) in logarithm form as follows:

$$\frac{\log(0111110)}{\frac{(\pi + 3)}{250}}$$

$$\frac{5.045753148}{\frac{(\pi + 3)}{250}}$$

$$\Rightarrow \Phi = 1.6181131101 \text{ (Golden metric ratio of the finite field).}$$

From this prove, it means that, my result satisfies all the hypothesis parameters. Because, it was able to explain that the "finite field solution" on which George Polya and David Hilbert proposed in solving the Riemann hypothesis based on an eigenfunction is true. Due to the fact that, my result was "mathematically-sufficient" to help deduced that, the finite field " $\#$ " has a metric (distance) that is approximately equal to the Golden ratio.

So, in conclusion, in accordance to my result, the Riemann hypothesis has its solution in a "finite field" where the nontrivial 0 is greater than all the elements bounded in the finite field which is approximately proportional to the Golden ratio (which I called the "Golden metric ratio of the finite field").

$$\zeta(s) = 0 \geq \# \approx \Phi$$

$$i. e., 0 \geq 0111110 \approx 1.6181131101$$

Finally, the result shows that The Golden metric ratio (1.6181131101) determines the magnitude of dimensions of zeros that lies in the finite field where finite field $\#$ represent the

graphical table. So, the more the prime numbers and negative even-integers spreads across the finite field #, the more there is a dimensional dip on the surface of the finite field where the zeros lies in or bounded with a Golden metric ratio.

I was the one who discovered the Golden metric ratio: 1.6181131101. So, with this Golden metric ratio, one can easily spot where the zeta zeros lie in the finite field and with a signature number system of: 0111110, which I also discovered while proofing the Riemann hypothesis.

So, the Riemann hypothesis proof is based on a finite field #, whose zeros converges at a vertical line, with a Golden metric ratio value of: 1.6181131101 and a signature number system or serial number of: 0111110 or $0,1,i,j,k,0$.

Signature number system of: 0111110 and Serial number of: $0,1,i,j,k,0$.

Hence, all nontrivial zeros lies in finite field # not on critical line $(1/2, 0)$. The solution lies at the vertical line of the finite field, not the critical line of the finite field but there are infinite vertical line besides critical line in finite field but infinite lines carries an inherent geometric metric ratio (Golden metric ratio) where the chances of finding the zeros is bounded.

Which is against the Riemann's statement.