Riemann Hypothesis through the glance of Infinite Quantum system

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Let us consider some gas with infinite number of molecules.

How to organize this system into infinite self-replenishing energy system?

The answer is hidden in Riemann Hypothesis.

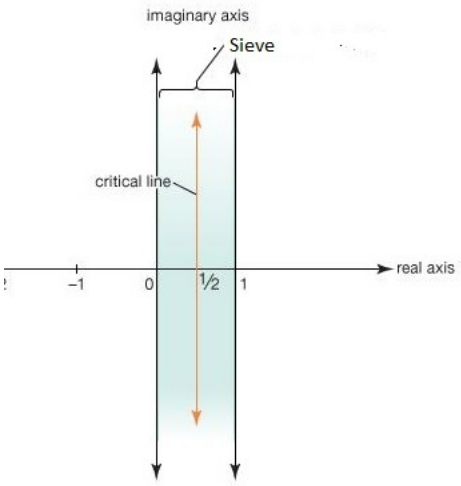
In this gas each molecule acts differently – with different degree of freedom.

The natural example of such gas are integers and prime numbers are the independent in the sense of multiplication operation (the biggest degree of freedom).

The gas state is described by its wave function that is the solution of some **Schrödinger equation**.

Hamiltonian of such equation is some procedure that describes the act been done on the gas.

The gas is situated between two infinite lines 0 and 1 as in Riemann Hypothesis, see Pic. 1.



Pic. 1. Gas Quantum System with Sieve that is placed between two lines. Sieve length is one.

Let us consider Sieve Of Eratosthenes as such Hamiltonian that is placed between two lines. Each step of this procedure determines what are the most independent numbers (molecules that give the biggest resonance or raise the system energy the most).

It is logically to raise a question how to place the Sieve centrum and at which time spots (this represent real and imaginary part of the variable of Riemann function) that give the best results in this process in the sense that molecules are processed by Sieve so that to maximize the energy of such quantum system (replenish it) to continue this process infinitely?

The answer is - when both energy levels of such system are the lowest, ie equal to zero.

Riemann zeta function (values of real and imaginary parts) give two energy levels of such system ruled by Sieve of Eratosthenes. One is what is below the Sieve and another one is what is above.

When both energy levels equal to zero, then it is a time to do the Sieve act again. The optimal solution for this quantum system to continue forever: Sieve centrum is placed on the middle line and it happens exactly at time points when both energy levels are zeros ie at nontrivial zeros of Riemann function assuming time is represented by imaginary part of zeros and the location of centrum by real part of zeros. QED

Let us give some examples.

First, the simplest such system – Frog sound system.

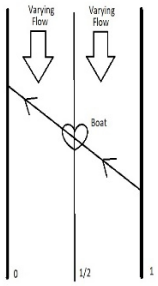
Another example, this quantum system can be seen as two parallel lines (river sides) where boat is sailing from one end to another between river sides but it is sailing so that it needs to overcome some flow, so it goes against the flow with varied intensity from side to side at 45 degree to minimize the energy loss. The boat is reflected from lines with no energy loss.

The boat needs the power of the quantum system that is floating in the river (infinite pipe with the water flow). Simply speaking the boat is climbing along the river against the waterflow that has different intensity level.

There is a crew on the boat that needs replenishment of their energy that they gave out to overcome the flow.

The question is where to make the optimal stop in the sense of energy saving to get enough power to make the next cycle.

The answer – in the middle of the pipe (river). See pic. 2.



Pic. 2. The Endless River with the Boat.

Here is another analogy that comes to the mind.

Let us consider Observation Wheel standing on two sticks where someone is rotated by the wheel motor with lithium battery and gets amused.

What is the optimal point to pick up new people for amusement to minimize the energy loss and still have possibility to recharge it for the next round? Right, at the below level, ie basically when battery is discharged.

And how to recharge energy of everlasting battery at the stop point because it is already empty (since that would be the optimal way to rotate the Big Wheel). Right, try to ask the people who wait there in the queue to connect their batteries to the main battery and charge it fully in order to continue the trip that never ends with those people as the new members of the crew.