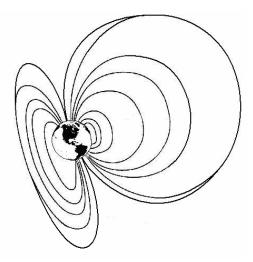
# Beyond Riemann and the Random Distribution of Primes

By Rémi Perron



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**Disclaimer**: To the best of my knowledge, all quotations included here fall under the fair use or public domain guidelines of copyright law in the United States and Canada. All quotations remain the intellectual property of their respective originators. I do not assert any claim of copyright for individual quotations. "Imagination is more important than knowledge, for knowledge is limited to all we now know and understand; while imagination embraces the entire world of all there is and ever will be to know and understand"

#### (Albert Einstein. 1879-1955.)

Its great inspiring quotes like these which gave my imagination the drive to try and unlock the mysteries we all want so dearly answered. A few years ago it was the orbit of mercury that led me into the notion that we still didn't understand the full behaviour of gravity, that in some way every planet and every atom was connected at a fundamental level. I began doing my own complex equations and after rigorous examination I had the proof that I wanted, but for the scientific community these were all new ideas and concepts mainly concerning the nature of antimatter which wouldn't be enough to compel them. The only other option I felt I had was to slowly start explaining these interactions with the work I had done regarding the random distribution of primes. To my misfortune I had found out a month prior to finishing this paper Eric Rowland a Rutgers graduate student had devised a prime generating formula of his own, but regardless I still feel it is necessary to release my data.

From what I've seen he doesn't fully understands the physics involved and the potential this formula has to solving so many more unsolved mysteries. If we ever want the next generation to understand it, we need to explain it in a more detailed manner rather than complex equations that don't really explain anything other than how to get the results.

# PRIME NUMBERS

The reason we have prime numbers is actually quite easy to understand, especially when we have two modern day numerical systems to work with. The first which carries both primes and unified numbers, the second consisting only of unified numbers governed by the laws of physics; we can effortlessly compare the two and figure out why they are different. You may be thinking this isn't the case! You're completely loony, but before you pass judgment read my entire paper, stay neutral and keep an open mind!

The first numerical system with primes, holds the confused nature by first defying the laws of physics where all numbers haven't been unified then later when mathematics is applied to form a unity the laws of physics follow; leaving unified numbers and what I refer to as (prime halves), this is how it all works!

We first start out with an action, #1. As we go up the number system you will begin to notice one more action appears each and every time to form a slightly larger number. The reason I refer to these and suggest to regard them as merely actions is because there's no clear explanation as to where or why these units spontaneously appear from prior to a numbers birth. This behaviour directly violates the first law of thermodynamics and hasn't been taken into consideration over the years in allowing our number system to evolve; as it should have. If you think that the laws of thermodynamics play no part in something as simple as our numerical system that's where you're wrong. We have been using numbers from the beginning of mans existence to represent objects that make up our universe, all of which must naturally follow the laws of physics. It hasn't been until recent times that the system has evolved into things such as computer languages. So in essence all numbers being looked at from this angle follow no laws, only those that had been established by #1; spontaneous and indivisible, which would mean that none are unified and able to interact together as most would perceive.

what this all mean's in a mathematical sense is that Henri Lebesgue the last professional mathematician to publicly label #1 a prime number in 1899, might have actually been on to something. Its not that I agree with him, BUT! A lot; if not most people think subconsciously that #1 is in fact a prime. When you put all the matter in the universe together, what do you have? Ask any normal Mike Smith on the street and he will tell you a very large number or a very large amount of matter. But the fact of the matter is: you have (one) (1), because anything smaller than everything is a division of the whole: You cannot have (one) if it is a division of something else and the only thing that's big enough to be non-divisible is everything. (Our number system is wrong and completely backwards!)

### **Στο παν** =1 (the summation of everything equals one.)

But it doesn't end there, what most people don't realize; perhaps even Sir Isaac Newton himself? Is that what his work has proved is nothing in the universe is in fact neutral and indivisible, if everything is to be connected at a fundamental level: every particle must hold two characteristics, the ability to act and react with its surrounding environment and the rest of the universe. Meaning everything would need to be divisible; able to (destroy or be destroyed) in order for it to equal one.

So to the observer #1 should only be regarded as an attribute that all particles within our universe hold the same laws: the ability to (divide) or be (divided). I'm certain I can speak for all scientists when I say that this Idea of #1 is correct; the universe is connected.

# "Every action has an opposite and equal reaction," (Isaac Newton 1643-1727.)

#### **Στο παν**= 2 [The summation of everything (to the observer) equals two.]

This is exactly why the second numerical system, the one which allows decimals; has no primes. The reason being is because each number can now be divided into proportionately equal halves showing its ability to react by your act of applying mathematics which creates a perfect unity. But the decimal system holds no merit in finding primes; I simply used it as a tool of explanation so just keep it at the back of your mind and focus on the 1'st most popular numerical system. Because of this, the new scientific numerical system could only be as follows: 2, 4, 6, 8, 10, 12, etcetera.

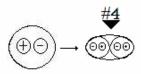
Anything other than the numbers above are all primes of unity consisting of an action separated from a re-action, 3, 5, 7, 9, etcetera.

In my view this would mean that Paul Dirac who created the (Dirac equation) in 1928 that predicted the existence of antimatter wasn't entirely right. With the equation below he stated for every particle in the known universe lies with it a corresponding anti-particle.

# $\gamma^{\mu}(i\partial_{\mu}-eA_{\mu})\Psi=m\Psi$

In my analysis I came to the conclusion that every particle doesn't necessarily need to have an anti-particle counterpart; however each particle must acquire the characteristic to become both through complex interactions, which would explain the lack of antimatter in the universe and why this is still being debated amongst most professionals. I have a lot of strong evidence that supports my theory and how it can all be accounted for. Regardless of any scepticism I don't expect anyone to understand how this all works as of now and won't be disclosing how these interactions work within this paper, it will take me years to write about. As of now I'm simply using this as a stepping stone to gain a little recognition until my other papers are finished, which I'm assuming will because one thing certain; my equation works and will flip our entire modern day numerical system on its head, leaving us one step ahead of the Riemann hypothesis.

Now Dirac's perceptions of how the universe works may be entirely different from my own but theirs one thing that both of us agree on, each unified number must be represented with two (2). what this means, and I'm sure already well aware of; is that one cannot co-exist naturally without the other whether it's at a subatomic level or the largest scale possible being infinite or finite. So both of our equations can be used to find prime numbers but I won't be discussing how Dirac himself might have tied in his work to my prime number theorem because frankly I believe he didn't fully understand the behaviour of matter-antimatter interactions. The prime number theorem you're about to see will prove that one of us is indeed correct, either that every particle does has a corresponding anti-particle or that each particle possesses the ability to become both.



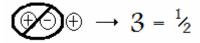
As explained unity cannot continuously expand by matter spontaneously appearing from nowhere, ignoring modern man's imaginary notion that the system is expanding; #4 truly looks as follows, (a division) where everything as a whole contracts by simply observing more action-reactions that make up the universe (two  $\frac{1}{2}$ 's that make up the whole); keeping perfect unity. Should be common sense! The more we begin to discover in the cosmos the smaller our planet seems to be getting, The deeper we begin to peer within the atom discovering smaller and smaller properties that make it up; the bigger the planet starts to become. The same applies with the universe even if it were infinite, if we were to lose all human knowledge up until now the universe would seem smaller because there would be less to observe; but would in fact be larger: for there would be more to discover and experience.



(+/-) used to rep. action/reaction

Now most would perceive #3 to be as the figure above where unity has been lost because one unit has spontaneously appeared from nowhere, this is the part of the number system I was referring to when I said carried no laws when math wasn't applied. This new unit that creates #3 must be a division of everything in the same way #4 had been contracted earlier because regardless of what most people would certainly like to believe the number system is truly in reverse. To find the prime numbers we need to keep going in Reverse creating divisions of everything whether it is infinite or finite to understand how we got it wrong. What must happen is one unit either an action or reaction is lost cancelling out unity to create a <sup>1</sup>/<sub>2</sub>, this other <sup>1</sup>/<sub>2</sub> cannot consist proportionately of both positive (actions) and negative (reactions) because then it would merely be apart of the whole. Sure you can imagine as if it did consist of both, but it can't be argued because then every number could certainly be divisible of them selves,

making no number in today's modern system a prime. So that's why it cannot, it has already been written.



It's this written misunderstanding that has produced unreal/prime halves and why I consider 3, 5, 7, 9, 11 etc. all primes; none can be divided into two equal halves that would represent unity governed by the laws of physics, actions and there unaccounted for counterparts.

It was in the final days from finishing my paper that I realized another math mystery was solved which I had once read about, (The goldbach conjecture). The reason why all whole numbers can be expressed by the sum of two primes is simply because two prime halves will always make a whole. If you think this is all still speculation with no hard evidence the undeniable proof you may looking for will be contained in my prime number theorem to come.

## **Goldbach's conjecture Solved**

From Wikipedia, the free encyclopedia

Goldbach's conjecture is one of the oldest unsolved problems in number theory and in all of mathematics. It states: Every even integer greater than 2, can be written as the sum of two primes. Expressing a given even number as a sum of two primes is called a Goldbach partition of the number. For example,

$$6 = 3 + 3$$
  

$$8 = 3 + 5$$
  

$$10 = 3 + 7 = 5 + 5$$
  

$$12 = 5 + 7$$
  

$$14 = 3 + 11 = 7 + 7$$

In other words, the Goldbach conjecture states that every even number greater than or equal to four is a Goldbach number, a number that can be expressed as the sum of two primes.

# Now this is where things get a little more complex

When prime halves merge with all others including unified numbers by using mathematics they are then forced to obey the laws of physics to create a unity. Our ancient almost religious understanding that each prime half carried its own unity before the mathematics was applied will still be used, the reason being is because without those primary laws to construct upon; it would render the entire equation en route for finding indivisible primes pointless, these numbers wouldn't exist for the reason that they are all unreal halves of unity itself. So the natural laws of the universe will be used in Conjunction with those pre-existing irrational laws, this is how it's done.

When the math is applied our unity that had been taken earlier from #2 to create a  $\frac{1}{2}$  (#3) is never really lost because that too would violate the laws of physics as a (spontaneous disappearance). From here #3 must follow the same pattern of contracting in the equivalent manner as #4 because it's the only way half the universe can be observed while still holding its unity. Then Keep in mind the irrational pre-existing laws have caused #3 to not consist proportionately of both positive (actions) and negative (reactions) so it now only represents  $\frac{1}{4}$  of what we should be observing as two separated action-reactions, #4.

# half of the newly contracted unity but only consisting of an action making it 1/4 of the whole



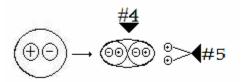
All these other <sup>1</sup>/4's must be added to the <sup>1</sup>/4 which #3 represents to regain its unity brought about by our actions of subtracting and separating it from the whole. But because these subtractions had been hidden by having no numbers to represent what had happened, all numbers added to re-establish the whole are also all hidden.

There are no numbers other than the future prime halves themselves that can be used to represent these other hidden 1/4's. This has given them all the eccentricity of taking on two sometimes three characteristics, the reason being that only prime halves can take on more characteristics and not unified numbers as well; is because Primes and unified numbers are completely different altogether and have no part in being associated with each other when trying to find what most people consider non-divisible primes; one is a real unit, the other is not.



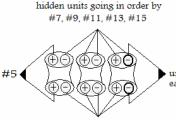
When unity is re-established it creates a cancelled or what I refer to as a unified prime, this is the third and final characteristic that some primes take on, in this case #9.

I will explain #5 so you can get a better more clear understanding of how it all works before finishing with the equation I've written. Once you see and understand the next few paragraphs there's no doubt in my mind I will have answered all the questions you might have.



As you can see with the image provided above every prime half will follow this same pattern of contracting to represent  $\frac{1}{2}$ of the unified number lying to the left of it the further down the numerical system we go. This is in order to keep a perfect reaction to our actions of observing everything in more detail. In general, every contracted **(unified)** number is the beginning to a different observation of the same and largest unified number (#2). If you're still unsure of how this can be achieved it's simply because the universe is composed of an unthinkable amount of action/reactions, the observer in this case has merely taken and is now observing the universe in more detail; two separate action- reactions that make up the whole within. (You can't see the action-reactions within an atom; that doesn't necessarily mean they're not there.)

So #5 will follow this same pattern of contracting because when observing half the universe with this amount of detail it is composed of two actions, two <sup>1</sup>/<sub>4</sub>'s that make up half. However just as #3 could not lose its unity from these reactions disappearing when math was applied, the same distinct pattern will be followed with #5 as well as all other prime halves to come; creating more hidden units that will reestablish what we should observing. At this time: three action/reactions that formulate the whole; making the <sup>1</sup>/<sub>2</sub> that represented #5 only 1/8<sup>th</sup>. But because we've isolated the two in the beginning by observing them as separate action/reactions, when we re-establish unity it must be in the same manner as first observed; so each action now followed by its hidden counterparts will all equal 1/16<sup>th</sup>.



unity met with #15 and #25 each are now a unified prime

hidden units going in order by #17, #19, #21, #23, #25

Being as we now have two hidden paths that recreate this newly observed unity, it leaves us with two cancelled/unified primes, which are #15 and #25. All other prime halves and hidden units will follow this pattern established by the observer the further down the number system we go, #7 will have 3 paths that must be taken; with 3 unified primes, followed by #9 that will have 4 paths and 4 unified primes. Even know #9 was a cancelled/unified prime it will still be used regardless: all primes will eventually be half of the unified number lying left of it. Now given the fact that our number system is only in one dimension, recreating unity will not happen like the last image shown in layers, it will happened back to back. Our one dimensional system has compressed all these layers together, so keep in mind that both these unified primes are still cancelled out collectively in one dimension, even if it does look strikingly odd

#### (ONE DIMENSION) BACK TO BACK

Cancelled primes 5, 7, 9, 11, 13, (5, 17, 19, 21, 23,

Everything you've seen up until now proves that all prime halves are unreal halves which have absolutely no association with unified numbers throughout; making every prime half and its hidden counterparts a continuous repeat of the same accidental hidden equation first composed of by #3. These prime halves follow a distinct pattern of becoming smaller divisions of what we should accurately be observing, allowing all unified primes to follow the same distinct pattern. So the only difference the further down the system we go is that each prime half and its hidden unity is broken down into smaller chunks in the same manner the observer has done with all unified numbers lying to the right, just so we could see everything that makes up the whole in a more isolated detail.

### **ULAM SPIRAL SOLVED!**

From Wikipedia, the free encyclopedia

The Ulam spiral or prime spiral (in other languages also called the Ulam cloth) is a simple method of graphing the prime numbers that reveals a pattern which has never been fully explained. It was discovered by the mathematician Stanislaw Ulam in 1963, while doodling on scratch paper at a scientific meeting. Ulam, bored that day, wrote down a regular grid of numbers, starting with 1 at the center, and spiralling out:

He then circled all of the prime numbers and he got the following picture:

To his surprise, the circled numbers tended to line up along diagonal lines.

# "We can't solve problems by using the same kind of thinking we used when we created them"—Einstein.

There is no formula that can be written to find (what they consider primes) directly, so I devised the new equation on the next page through the principals I've been talking about that will find all cancelled/unified primes, (what I consider primes). Leaving those that are none divisible, (Leaving there's to explain mine.)

I've spent countless hours over the internet searching Google and wikipedia for symbols used to replace and represent my own; I was hoping to translate it into a more common understood language among mathematicians and physicists, but no symbols could be found that are even remotely close to explain the interactions within my equation; besides the Ying-Yang which I slightly changed and refined because it takes on many meanings today and throughout history.

$$|\dot{\cdot}| = \text{hidden unity}$$
$$(\cdot) \cdot \hat{\cdot} = \text{unified prime}$$
$$(\cdot) \cdot \hat{\cdot} = \text{unity to the observer}$$
$$(1/2) = \text{unreal prime half / prime number}$$

$$\left[(\cancel{1}_{2} ? ? + \cancel{2}_{2}) = (\cancel{1}_{2} ? ? + \cancel{1}_{2} = \cancel{2}_{2})\right]$$

(Unreal/prime half + unity) = (unreal/prime half + hidden unity = unified prime)

# 

(The infinite amount of unified primes minus themselves will leave us with all indivisible primes)

#### HOW IT WORKS

All numbers starting from #2, going up by two's; will be excluded from finding non- divisible primes. All of them are divisible whole units which cannot in anyway create random effects.

Start with all the numbers in which I consider prime 3,5,7,9 etc., etc. Since 3 is the first random occurrence, it is #1 in this equation. Now count three numbers over and you get #9 a cancelled/unified prime. Next move on to #5, count 5 primes over just as you did with 3; you get 15 another unified prime. But because it is the second prime you do it yet again, from 15 this time; Count 5 more primes over and you get 25, another unified prime. Now from here you move on to #7, count seven digits over and you get 21; yes another unified prime yet again, just as you've done with #5 you do it with #7 two more times because it is the third prime. I've done this with thousands of primes all of which were cancelled out, leaving only those considered by mathematicians to be true primes. I can go on an on but I know my understanding is correct, take a look; I leave it up to you to be the judge.

Lastly, the reason why prime numbers (what they consider prime) appear to be in a random arrangement is because all the layers needed to show the recreation of unity has been compressed by the deficiency of numbers caused by our misunderstanding towards these other dimensions, making our system unlawful in the realm of physics. When looking at the Ulam spiral the pattern starts to take form, when fully understood the pattern is obvious. I would like to believe all this has been brought about unintentionally, but let's face it; the world in the past was filled with the majority of individuals believing there had been a creator, or powerful persons pretending in order to keep their precious control.

# Religion is excellent stuff for keeping common people quiet, and is what keeps the poor from murdering the rich (Napoleon Bonaparte 1769-1821)

I believe as a direct result, this is what caused a chain reaction among most peoples understanding today that unity had only one part, an action caused by a creator; and to which none of these citizens have a clear explanation of where god himself could have come from. For those who say just have faith, my equation proves that being created from nothing as apposed to accepting that only everything can exist is what has caused our numerical system to go astray. Can zero exist or only everything, we agnostics are now one step closer to explaining the importance of staying neutral.

# NOTES

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