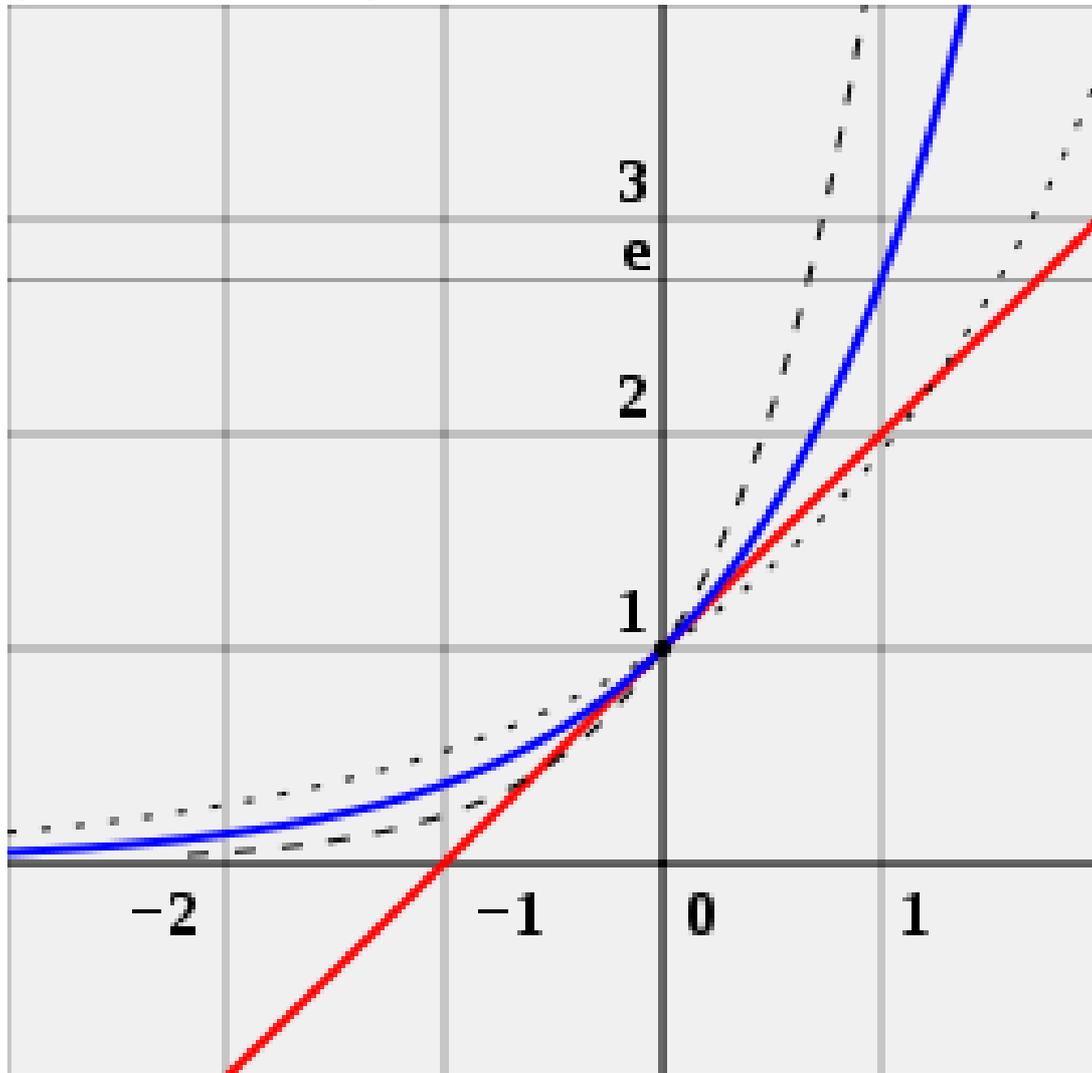


The Purpose of the Euler Number in Vedic Physics

By John Frederic Sweeney



Abstract

The Euler Number, or e logarithm, arises naturally from our combinatorial universe, the result of the interactive combination of three distinct states of matter. This paper provides the details about how this combinatorial process takes place and why the range of visible matter extends from π to the Euler Number.

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Introduction

The author posted a few papers on Vixra during 2013 which made statements about Pi and the Euler Number that lacked support. This paper offers the support for those statements. Since the explanation is mired, twisted and difficult to follow, the author wished to make other aspects of Vedic Particle Physics clear.

This paper begins with Wikipedia on Euler, then to the Vedic Explanation. This paper, along with Why Pi? Which explains the reason why Pi carries such importance in a combinatorial world, should make it easier for readers to grasp the fundamental concepts of Vedic Particle Physics. Essentially, three states of matter exist in a combinatorial world, the axes of the states run from Pi to the Euler number.

The simple formula of $n + 1$ suggests Pascal's Triangle or Mount Meru, and the author has published a paper on this theme about Clifford Algebras, suggesting them as a most useful tool in a combinatorial universe.

Someone once said that only those with clear understanding can explain things clearly and simply to others. The intent of this series of papers is just that – to explain Vedic Particle Physics in simple fashion so that everyone might understand it – save for those committed to wearing their ideological blinders for the remainder of their lives.

Western physics has grown so complex over the past century, which attests to its failure to explain anything adequately. The Einstein Paradigm is full of holes and leaps in logic which were meant to compensate for the inexplicable. So professors have run around trying to fill the holes in Einstein's Paradigm, while the ship slowly sinks. The universe is not such a complex monster, if God doesn't play dice with the universe, Brahma certainly didn't fill it with overly – complex, nonsensical make – believe concepts, either. Brahma created the Universe with Vedic Physics.

Wikipedia on the Euler Number

The number e is an important [mathematical constant](#) that is the base of the [natural logarithm](#). It is approximately equal to 2.71828,^[1] and is the [limit](#) of $(1 + 1/n)^n$ as n approaches infinity, an expression that arises in the study of [compound interest](#). It can also be calculated as the sum of the infinite [series](#)^[2]

$$e = \sum_{n=0}^{\infty} \frac{1}{n!} = 1 + \frac{1}{1} + \frac{1}{1 \cdot 2} + \frac{1}{1 \cdot 2 \cdot 3} + \dots$$

The constant can be defined in many ways; for example, e is the unique [real number](#) such that the value of the [derivative](#) (slope of the [tangent line](#)) of the function $f(x) = e^x$ at the point $x = 0$ is equal to 1.^[3] The function e^x so defined is called the [exponential function](#), and its [inverse](#) is the [natural logarithm](#), or logarithm to [base](#) e . The natural logarithm of a positive number k can also be defined directly as the [area under](#) the curve $y = 1/x$ between $x = 1$ and $x = k$, in which case, e is the number whose natural logarithm is 1. There are also more [alternative characterizations](#).

Sometimes called **Euler's number** after the [Swiss mathematician Leonhard Euler](#), e is not to be confused with γ —the [Euler–Mascheroni constant](#), sometimes called simply *Euler's constant*. The number e is also known as **Napier's constant**, but Euler's choice of the symbol e is said to have been retained in his honor.^[4] The number e is of eminent importance in mathematics,^[5] alongside [0](#), [1](#), [π](#) and [i](#).

All five of these numbers play important and recurring roles across mathematics, and are the five constants appearing in one formulation of [Euler's identity](#). Like the constant π , e is [irrational](#): it is not a ratio of [integers](#); and it is [transcendental](#): it is not a root of *any* non-zero [polynomial](#) with rational coefficients. The numerical value of e truncated to 50 [decimal places](#) is 2.71828182845904523536028747135266249775724709369995..

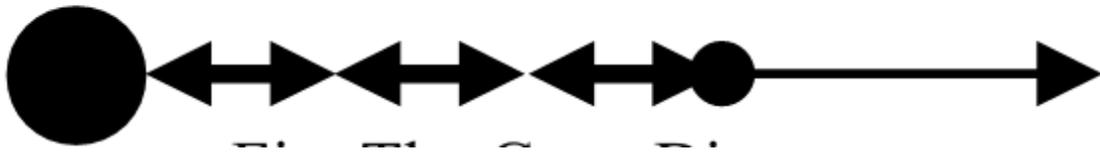
Vedic Physics on the Euler Number

Three forms of interactive stress could only exist if the substratum or field of components in space had the following four qualities:

Sanskrit Term	Meaning
Aikaantha	synchronized
Aathyanta	perpetual
Atho	dynamic
Abhavath	invisible

These states are analysed and their axiomatic values derived below.

This diagram clarifies the concept:



The dot represents the stored stresses in the Thaama compressive, dense, coherent and stable state of Aikaantha. The double arrowhead shows the periodically released Raja interactive, resonant, stationary but transmigratory state of Aathyanta. The long single ended arrow shows the 'instantly' released Sathwa expansive, radiant and mobile state of Atho.

The single arrow indicates that counts along two axes stand synchronized. When counts along 3 axes synchronise perfectly in Thaama state, then the double and single arrows turn inwards or 'disappear'.

Then space becomes invisible in the undetectable state of Abhaavath and the Universe remains in the Aikaantha state. Therefore, space the fundamental reality, can exist in only one state of Aikantha, the coherent state of three dimensional or cubic resonances.

Movement needs the fourth power, Aikaantha, which is a synchronized or coherent singular state where all components act simultaneously as a single entity in the Thaama state shown as the dot. This can comprise activity in both forms, where relative movement between interacting components may or may not exist. That is to say that, relative activity may all proceed together or may be in a sequential form within the cycle.

As an example, ten people can clap periodically either simultaneously or sequentially. Though the ten simultaneous claps will be counted as one, it still contains the ten claps. Only the degree of non-synchronisation will allow one to differentiate between the ten different claps, so all the interactions can remain together in the same relative relationship of a frozen form or move relative to each other in a cyclic period of movement and yet remain a singular entity.

Aikaantha has two mathematically limiting values, depending on its state of internal relative movement. Assuming there are n components, then the maximum number of possible interactive states must be N / 1. Comparing the relationship with the smallest possible value of an isolated component of one unit, the number of possible interactive states become N-1 and the incremental ratio of a change, simultaneously or instantly, becomes

$$F2 = (1 + (1/(N-1)))^{N-1}$$

(as simultaneous interactions are logarithmic):

As N approaches infinity F2 equals the base of the natural logarithm e in modern terms. If all possible interactions are carried out n-1 times simultaneously, then it will approach the value of e or F2. Here the logarithmic sum of the incremental value and its ratio reach an asymptotic or limiting value of a transcendental number.

$$e = \left[\left(\frac{N}{N-1} \right)^{N-1} = \left(1 + \frac{1}{N-1} \right)^{N-1} = 2.7182818285 \right]$$

For this reason, the larger the number of interactive components or larger the relative volume acting as a single unit, it will always tend to equal 2.718 or e at the maximum rate of simultaneous or 'within a cycle' or instant period of interactive changes or counts. Any count of an interaction can be obtained only after the completion of the cycle, and therefore the unit count per unit cycle is a relative instant.

Aikaantha is an axiomatic state that shows the substratum of space will always remain in this singular or frozen state of dynamic interaction when unhindered.

Formula

$$A_0 \times 2 A_{i1} \ 1 \ 1 A_{i2} \ 2 A_{i2} \ 2$$

$$A_{i1} \ 2 \ 1 \ 2$$

$$0.314139$$

$$0.314154$$

$$0.314158$$

The above proves that even an interaction with a relative cyclic period difference remains in the same singular or stationary position of the Aikaantha state, because the sum of all the interactions within the cycle only add up to $\pi/10$, provided the initial displacement is x or $x/2$. Even though any interaction is always directed in the line of action, the relative direction between two axes change with a variation in rate of interaction between two axes.

Regardless of the rate of interactive counts per cycle, the interactive stress forms (waveforms) follow a circular path and complete the circular cycle only after 10 sequential interactions, but yet remain in the Aikaantha state, as shown mathematically.

Axiomatically there can be only three modes of interaction as derived in the Guna Suthras. Then these three modes can act simultaneously or sequentially. The permutation combinations indicate only 10 possible.

Vibrating motion causing a deviation must be precisely confined to a cyclic ratio of two. Then it conforms to the standard required to maintain a synchronous and harmonious standing wave. Had this condition been attained easily there would not have been any detectable phenomena or an observable Universe today.

For this reason there rose a vital need to understand the logic that made it impossible to achieve this coherent balance permanently. Sankhya shows that the conceptual mode of solving this problem is simple, for all one has to do is to create a three dimensional grid, divisible by two, raised to the n th power (2^n).

At the same time it proves impossible to achieve the coherent state naturally,

for the very last or elemental cubic grid cannot be divided, but can only be shared, and therefore the last or innermost cube keeps each component in a dynamic state of existence forever.

The ratio of sharing the elemental cubic grid is axiomatically derived by several principles and quantifies it as 2.718 (the value of the natural logarithm e), in the form of a black hole or Andhatamishra (meaning the darkest division of hell in Sanskrit) which oscillates simultaneously in modes greater than 18 orders of magnitude, as (10^18).

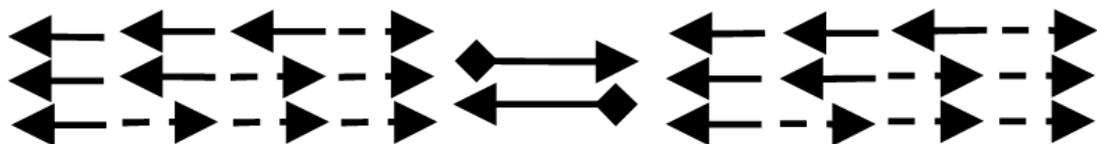
$$E5 \quad \left(\frac{N}{N-1} \right)^{N-1} = \left(1 + \frac{1}{N-1} \right)^{N-1} = 2.718282$$

$$e = \left[\left(\frac{N}{N-1} \right)^{N-1} = \left(1 + \frac{1}{N-1} \right)^{N-1} = 2.7182818285 \right]$$

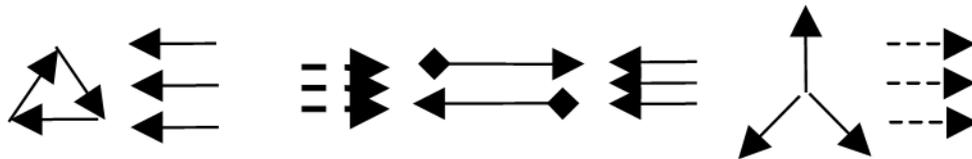
No matter how large the number of interactive components or large the relative volume acting as a single unit, it will always tend to equal 2.718 or e at the maximum rate of simultaneous or 'within a cycle' (instant period of interactive changes or counts).

Any count of an interaction can be obtained only after the completion of the cycle and therefore the unit count per unit cycle is a relative instant. Aikaantha is an axiomatic state that shows the substratum of space will always remain in this singular or frozen state of dynamic interaction when unhindered.

Axiomatically there can be only three modes of interaction as derived in the Guna Suthras. Then these three modes can act simultaneously or sequentially. The permutation combinations shown below indicate only 10 possible states as shown below:



1	2	3	4	5	6	7	8	9	10
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The three modes of an interaction are directly related to the direction of the 3 axes. The solid arrows mark the original inward state while the dashed ones radiate. The closed triangle show the simultaneous dense Thaama state while the radiating arrows show the radiant Sathwa mode.

The mix of dashed and solid arrows indicate the number of axes that remain dis - synchronous with the original state, which shows 10 distinct combinatorial states.

Three counts for the closed triangle with 3 axes converged, another three counts for the 3 axes in radiant mode, totaling 6 ways. Then there are four additional variants of inward & outward - going combinations of parallel and converging combinations. Two axes synchronize perfectly to reduce the interactive counts logarithmically when the value of a count is less than

$$1 / C^{1+x} = 5e-13$$

Or about a femtosecond differentiates the synchronized from the non - synchronised state. Similarly

$$1/C^{1-x}$$

defines desynchronisation is complete and leaving

$$1/(Cx)^2$$

as the period in which the bonding (resonant or coupled) state can exist. These three parameters have a fundamental identity in Physics.

The essential point to note is that the transfer of interactive parameters can act only along one axes albeit it may be both ways, within the duration of such activity. Sequences 1,2,3 & 4 and 7,8,9 &10 transfer the effects only through 5 and 6. In a confined region, the 1 to 4 states represent the ingoing, centered and highly compressive states symbolized by the closed triangular set of arrows. Whereas the 7 to 10 are expansive, free to act outward again symbolically as an opened out set of three arrows.

Conclusion

There it is, the other bookend to the Why Pi? Paper, with the combinatorial mechanics given in detail here. With these two papers, there can remain little doubt that our universe is combinatorial in nature, for these two values have been given profound meaning by these explanations. No longer mathematical curiosities, these papers explain WHY nature includes the Pi and Euler values.

Having grasped these fundamental points, it should be easier for readers to grasp the remainder of Vedic Physics. If one can accept that there are three states of matter in the world, one of them invisible; that we live in a combinatorial universe, and that the types of matter interact along axes as described herein, then this provides the basis for understanding the rest of Vedic Physics.

Vedic Physics does not conflict with basic values and concepts of western science and math, but merely reduces the unnecessary academic posturing and postulating to nil. Vedic Physics is axiomatic, and formed a priori some 14,000 years ago, at least. At the same time, western science still fumbles around with the egregious mistakes left behind under the Einstein Paradigm. Scientists today have a choice: to stumble and bumble around with a broken paradigm, or begin to look at the universe today with a new, yet ancient paradigm which has lain dormant in the Rig Veda for the past dozen millennia.

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Contact

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Some men see things as they are and say *why?* I dream things that never were and say *why not?*

**Let's dedicate ourselves to what the Greeks wrote so many years ago:
to tame the savageness of man and make gentle the life of this world.**

Robert Francis Kennedy