Title: Beyond light range : a mathematical solution

Abstract : This article aims to present a mathematical solution to the problem of light value beyond its range by using Lorentz transformation.

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Introdctuon:

light has a a range extendable with speed c , beoynd that range light intensity is zero , if we plugged any value of distance beyond this range it will give a non-zero value , it gives a wrong value beyond this range , however how we calculate the value of light intensity of bulb out of its range ?The idea of light doesn't exist and its density equals zero is intuitive , but there should be a model to determine its value there by using mathematics .Loranz transformation gives values for any place in the universe that light didn't reach.

Article :

In light intensity equation , light intensity is inversely proportional to squared distance d, But this doesn't happen for all values of d, even though light beyond its range equals zero, according to this inverse squared law light intensity shouldn't ever be zero.The graph of $1/d^2$ is infinite, but when choosing some point out of light range of d on this infinite graph it gives a value for intensity although light didn't reach there yet.

This contradiction refers to the equation as being merely mathematical.mathematically we have infinite numbers . physically we don't. Beyond light intensity range, all values of distance r are not acceptable

For the equation to be physically as well as mathematically we have to consider that light didn't yet reach places in the universe, 1/d^2 can't express this , the graph of 1/d^2 gives options to all possible values of d to infinity which is wrong.

The graph of the equation 1/d^2 can't be infinite , infinity is unreachable. It should have a real number length increases and continues forever.

The idea is we have a graph let say y=x^2 it starts at y=0 and x=0, this graphs moves " let say we are drawing it" at particular speed, in away that we always have start " the origin"an end or edge point for it.

Let's use Lorentz transformation to derive the true equation of light intensity .We will then have another co-ordinate system , we put its origin at the end or edge of the graph 1/d^2, the graph 1/d^2 edge won't exceed the another co-ordinate system , i.e we won't have any graph at the other co-ordinate system.The new co-ordinate system has certain speed at which the new co-ordinate origin will always be at the end of the graph.Here the graph is not infinite line, infinity is unreachable, it has a certain length moves and extend at specific speed and the new co-ordinate moves as well in a way the new co-ordinate

origin will always be at the end of the graph.Beyond the limit of the graph we can't calculate values since events didn't occur yet, notice the the co-ordinate systems are infinite they represent infinite space-time, however the graph represent finite events occurred in this infinite space-time

In fact light intensity exist within its range , but beyond its range, intensity equals zero regardless of the value of x2 , since that graph doesn’t actually exist and x2=0 ,y2=0,z2=0, t2=0 , there is not time lapsed nor stance traveled, the events for light beyond its range are in the future they didn’t happen yet The new co-ordinate system starts at the event of light emission , within light range are past event,beyond its range are future events that didn’t happen.

We could use the transformation for speed of objects speed of an object at distance it traveled equals certain value, speed of this object at places it didn’t reach equals zero ,because the time elapsed in the future equals zero “ it didn’t spend any time “ and the distance it raveled is also zero”it didn’t travel any distance.At each moment its graph will be at the origin with respect to future time and distance , it just started to elapse its future time.i.e t=0 and x=0

Lorentz transformation:$x=(x2+vt2)/\sqrt{(1-v^2/c^2)}$

x2=0, since the graph doesn't exist at the co-ordinate system of (x2,y2,z2,t2)t2=0 the graph doesn't exits there Then always x=0 , .t=0 beyond the graph since there is not time elapsed nor distance traveled intensity will always equal zero, t=0,x=0 speed of light is zero , light didn't emitted the event didn't occur. then intensity is zero Also intensity

equals zero since the graph doesn't exist there.x2=0, y2=0, z2=0, t2=0 only with respect to the graph"the graph doesn't exist"But x2, y2, z2, t2 have values with respect to space-time

As a conclusion any graph has a specific length extend with specific speed according Lorentz transformation, the graph doesn't exist beyond its edge, all values of the co-ordinate system beyond graph edge will equal zero.Light intensity inverse squared law is governed by this rule, the values of x,y,z,t beyond $1/d^2$ graph all equal zero, so light speed will equal zero , light didn't emit and its intensity is zero.

x=0, t=0 beyond the graph an example is:"speed of an object at distance it traveled equals a certain value, speed of this object at places it didn’t reach equals zero ,because the time elapsed in the future equals zero “ it didn’t spend any time “ and the distance it raveled is also zero”it didn’t travel any distance", the object at any moment could be considered to be at the origin .Future values of time and distance are the values of this co-ordinate system, the object is at the origin its t=0 ,x=0 they remain zero since the object didn't move yet at that moment And this applies to all events in the universe, and it applies to gravity as well , gravity is not infinite , gravity has a limited range extendable with the speed of light c