

## Lawrence Krauss' Faulty Logic

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### ABSTRACT

From the mere possibility that the total energy of our present Universe is zero, it cannot be concluded that it has actually originated from nothing, because even if it has originated from something, its total energy would be zero as I argued previously in this journal. Thus, Lawrence Krauss and perhaps some other materialist scientists along with him, have wrongly concluded that, as the total energy of the Universe is found to be zero, it must have come from nothing.

**Keywords:** Faulty logic, Universe, zero energy, something, nothing.

In 2010 Lawrence Krauss wrote an article in Wall Street Journal [1] in which he had argued that as the total energy of our present Universe is found to be zero, so from this it can be concluded that it must have originated from nothing. The gist of his argument is something like this: Let us suppose that the Universe has actually originated from nothing at all. Then in that case the total energy of the Universe would obviously be zero, because here everything has started from zero or nothing.

Indeed, some other scientists have deduced or argued that the total energy of the present Universe is also zero. So naturally it may be argued that it has actually originated from nothing, because in that case only its total energy is expected to be zero. But this reasoning is faulty. This is because it can be shown that, if the Universe has originated from something and not from nothing, then in that case also the total energy of the Universe would be zero.

Here we are saying that the Universe has originated from something, but we do not know anything about this something. It may be that this something is another Universe or it may not be. It may be this something is God or it may not be. These are all guess-works, and all these guess-works might be wrong, because there cannot be any observational verification of all these guess-works. That means we cannot say anything about it with absolute certainty.

But at least one thing we can say with absolute certainty and it is this: Our Universe has originated from that something. That means only that something was there and there was nothing else other than that something prior to the coming into existence of our present Universe - No space, no time, no matter and no energy. Space, time, matter and energy came into being only after the origination of the Universe from that something. So before the beginning of the Universe that something was without space and without time.

Now with the help of the theory of relativity I have already shown previously [2] that the total energy of that something would be zero. So it is quite immaterial as to whether the Universe has actually originated from something or from nothing, because in both the cases its total energy

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would be zero. So from the mere possibility that the total energy of our present Universe is zero, it cannot be concluded that it has actually originated from nothing, because even if it has originated from something, then in that case also its total energy would be zero. So zero total energy cannot be the only factor on the basis of which we can conclude that the Universe has actually originated from nothing. Thus Lawrence Krauss and perhaps some other materialist scientists also along with him, have wrongly concluded that, as the total energy of the Universe is found to be zero, it must have come from nothing.

## Reference

1. <http://www.wsj.com/articles/SB10001424052748703946504575469653720549936>
2. <http://scigod.com/index.php/sgj/article/view/404/453>