Measurement Error Discovered in the Paper, "Experiment on the Linear Increase in Efficiency with Multiple Moving Magnets over Pulsed Inductors"

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In the paper, "Experiment on the Linear Increase in Efficiency with Multiple Moving Magnets over Pulsed Inductors" I, the author, described and measured an experimental apparatus in attempt to discover whether or not the efficiency of such a system would increase linearly with an increase in the number of generator-turning magnets and an increase in frequency, as previous experiments had suggested the hypothesis could very well be valid. The result was that it increased exponentially, and that aspect of the paper remains intact despite the measurement error. By filtering the input power (but not the output power) to the system, such that at each increase in frequency the input power would in turn reduce with an output power increase, such a successful experiment would surely be telling of an over-efficient system, perhaps even self-sustaining systems could be a practical technological reality. While the apparatus design was successful, an important input measurement error was discovered, thus the experimental results will need to be retested and the paper appended.

Two important questions arise from such an error, which may be unsettling for those who have read the paper, hoping for an over-efficient experiment, but that certainly would be disappointed at this finding: 1) how could the author have measured the input power incorrectly, how could anyone have, as it was tested by numerous enthusiasts at the NPA 19 conference? And 2) what results of the paper are made invalid from the measurement error, if not all of them? To understand either of the answers to these questions, it is important to first understand the measurement error.

While the output power of the experiment was constant DC, the input was AC with a DC bias, using an audio power amplifier, not a regulated power supply, and not merely a DC pulse. The measurement device used only measured the DC bias, meaning there was much more power input than actually measured. How the author mistook this is difficult to explain, as the author had just three years earlier designed audio amplifier circuits, transformed them to higher voltages, knowing very well that audio amplifier circuits output AC power with a DC bias. Simply and honestly put, the author spent far more time, too much time, on getting the apparatus to function correctly, that he simply forgot something was there that he was unable to see. In science, this is at the very least awkward; but in daily life, such mistakes are common. The mistake is analogous to turning out a light, walking across a dark room and

without knowing, avoiding tripping over a shoe that someone else would surely later trip over. One could say, "in retrospect, I remember it being there, but forgot it was there when I turned out the light, because I didn't see it at that moment, nor did I trip over it shortly thereafter."

The answer to the second question is much more promising than the first, which makes the experimental write up fairly easy to modify with remaining positive aspects in terms of leaving all the promising results of the paper intact (just not the over-efficient result). But the paper originally was not intended to provide OU, only test for an increase in efficiency. The OU aspect of the paper was added at the last minute as the incorrect measurement suggested that this is what resulted. But while the AC power input was not even measured, it still decreased by means of the filters at each frequency increase, and the power output still increased with each frequency increase and with each additional magnet-driven generator. Thus, the efficiency of the system still increased exponentially with respect to both the frequency increase and the numbers of magnets. The single resulting error from the measurement error is that the experiment has not demonstrated that the system is over-efficient. Yet, the input power is factually decreased with each increase in frequency, as the power amplifier filter was set to reduce it linearly. This was evident and presented at the NPA 19 conference and is indisputable, showing that by increasing it beyond 60 Hz the power input was so small that the magnets were unable to even rotate any longer; thus, it was decreasing with frequency.

There are two more significant findings the experiment presents: 1) the number of magnets will further increase the efficiency, and making them smaller allows more to be added to the system to greater benefit, and 2) only the rotational motion of the magnet was ever captured/measured as the power output. It is the second of the two that is most significant. It was known originally that the power of the precession motion of the magnets was in sync with the input frequency, while the rotational motion was not. There is much more energy remaining in the magnets' motions than just the energy of the rotation, that which was measured. In fact, it was hypothesized and confirmed that this rotation energy is extra energy, as it can be isolated from the precession motion (that linked to the input power), and does so without drawing additional input power from the amplifier. How this is known is because the audio amplifier is not regulated, which means that if the rotation energy were coming from the power input of the amplifier, then it would draw more power; but it does not, as the power input decreased with the frequency increase, while the rotation energy increased with the frequency increase. This fact remains even amidst the actual measurement number; it is the behavior of the decrease that is most telling.

The reason why this precession motion's energy was not added to the rotation motion's energy in this experiment for greater power output was simply because a regulated power supply capable of powering AC with a DC bias would needed, along with a an oscilloscope to measure. Both those two pieces of equipment are far more expensive that a single True RMS multi-meter. It was the author's original intent to design an experiment that could easily and cheaply be replicated by numerous individuals. The author has in the past designed an AC power supply with a DC bias, and it's not terribly difficult, straight forward EE. It involves 1) a battery, 2) an adjustable frequency signal generator circuit, 3) an op-amp circuit to increase the amplitude and then 4) a voltage regulator circuit. Each of these circuits can be combined onto one circuit and if the power is not terribly high, the circuit board can be fairly lightweight. Lastly, the power input can be then split such that a portion goes to the inductor alone (enough to move the magnets), while the other is rectified and added to the output motors, whose drag should be eliminated if the experiment exhibits extra energy. The result of a properly designed circuit should show not a reduction in output power (as would occur with a typical circuit, having less than 100% efficiency), not halved with each additional motor, but doubled. It's a simple enough experiment, and the author will be providing the results of such in time, whether they are confirmed or denied.

In the meantime, the author will retest the input power for the first experiment as time permits, and will append the paper as time permits. I have stated from the beginning that I found it hard to believe that this crude experiment could be demonstrating OU (only sought increased efficiency), as it was not expected, and I have stated that I was putting this experiment out to the public as is in hopes that if there were any measurement error to be discovered that I had overlooked, someone would find it. I therefore provided photos of the measurement equipment in the paper and the values measured so that a skilled skeptic could have all the data in order to make an informed assessment. The data provided in my paper was sufficient for that, as the individual who made the discovery was able to do so by studying/referring to the paper. It was not discovered in the presence of the apparatus. In that sense, I am yet pleased very much with the paper, as it has provided all the information required for replication. Now that this error has been discovered, future experiments with this same apparatus will be stronger, and can now move forward faster than had the error been continued to be overlooked.