

Re: Am I a crank?

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- *From:* "david petry" <david_lawrence_petry@xxxxxxxx>
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skialps10@xxxxxxxx wrote:

I like to think I came up with a fairly unique way of modeling the Goldbach Conjecture and was thinking of programming it up to see if I could find any patterns. I simply don't have the background to know of any lemmas to make the job easier and don't plan on using calculus. In the exceptionally unlikely event that I found some pattern I was planning on formalizing it.

Does this sound crank-like?

Mathematicians can't reasonably claim that it is "crank-like", because it is the kind of thing they do themselves.

Here's something I think you ought to think about:

Goldbach's conjecture is very likely to be true for simple probabilistic reasons. There are lots of prime numbers, and for a large even integer, probabilistic reasoning suggests that it is very likely that some pair of prime numbers will add up to that even number. The key to such an argument is to interpret the Prime Number Theorem as a probabilistic assertion, telling us that the "probability" that a randomly picked integer of size N will be prime is $1/\log(N)$. Then combined with the fact that Goldbach's conjecture has actually been tested for all even integers up to about 10^{18} , we are led to conclude that the conjecture is true with a probability of about $1-10^{-4000}$.

It could be argued that since the mathematics community does expend a great deal of energy in the search for formal proofs of conjectures having ridiculously high probabilities of being true, and often turns a blind eye to the probabilistic arguments, the mathematics community itself engages in crank-like behavior.