

Re: Partial difference equation, primes

Source: <http://sci.tech-archive.net/Archive/sci.math/2004-08/4019.html>

From: James Harris (jstevh_at_msn.com)

Date: 08/21/04

Date: 21 Aug 2004 16:08:34 -0700

Marcel Martin <mm@ellipsa.no.sp.am.net> wrote in message
news:<41277B22.8D5D4AF9@ellipsa.no.sp.am.net>...

> *James Harris a écrit :*

> >

> > *Marcel Martin <mm@ellipsa.no.sp.am.net> wrote in message
news:<41257489.17E05AC2@ellipsa.no.sp.am.net>...*

> > > *James Harris a écrit :*

> > > > [...]

> > > > *My prime counting function uses a partial difference equation.*

> > >

> > > *What do you call a "partial difference equation"?*

> >

> > $dS(x,y) = [p(x/y, y-1) - p(y-1, \sqrt{y-1})][p(y, \sqrt{y}) - p(y-1, \sqrt{y-1})]$,

> >

> > $S(x,1) = 0$, $p(x, y) = \text{floor}(x) - S(x, y) - 1$, and $S(x,y)$ is the sum of
> > dS from $dS(x,2)$ to $dS(x,y)$.

> >

> > *Here $dS(x,y)$ is a partial difference equation. And $p(x, \sqrt{x})$ gives
> > the count of prime numbers up to and including x .*

> >

> > **Source:** http://mathforprofit.blogspot.com/2004_03_01_mathforprofit_archive.html

>

> *Ok, so I still don't know what you call a "partial difference*

> *equation". But don't worry, it has no importance.*

I handled that topic with a separate thread.

But it's not complicated—no matter what a sci.math'er might try to insinuate—as a partial difference equation is the discrete analog to a partial differential equation.

There is no other known in recorded history used to count prime numbers besides my $dS(x,y)$ and yes, I'm talking about all of human history here.

To me that's a simple enough claim that it should either be refutable by you sci.math'ers, or if you're sane, you'll quit trying to

insinuate that it's not a big deal.

I fear you're not exactly what most people would call sane.

- > *Do you understand that the fact that "your" formula contains or not*
- > *a PDE has absolutely no impact on the way we could use it to compute*
- > *$\pi(x)$? Do you understand that with many formulas containing*
- > *something like $F(x,y)$, one could claim that $F(x,y)$ is a PDE? Of course,*
- > *one could do it but what would it change?*

You're lying because you're insinuating that mathematicians have in fact used a partial difference equation to count prime numbers when they have not.

It's not complicated here. You may think you can parse the language to fool everyone on sci.physics or that the other sci.math'ers will just go along with you as they have for over two years now, but it doesn't change the facts.

I say that no one in recorded human history has used a partial difference equation to count prime numbers.

That is a fairly straightforward claim, and if it's not true you can just give some other partial difference equation, but instead you try to spin the facts, like what in the hell is " $F(x,y)$ "?

I've seen how you sci.math'ers operate for over two years now, and you have a contempt for the truth, and a demonstrated contempt for mathematics.

- > > >
- > > > *That's only with the "pure math" implementation.*
- > > >
- > > > *!?*
- > > >
- > >
- > > *Shown above.*
- >
- > *What I meant was that "'pure math" implementation' is a mere nonsense.*
- >

Yet people can see that it is not nonsense most dramatically by looking at it, and I've put it on my blog:

http://mathforprofit.blogspot.com/2004_03_01_mathforprofit_archive.html

- > > *Posters continually use the word "algorithm" in a derisive manner,*
- > > *when actually the prime counting function is just a formula.*
- >
- > *Ok. So, if a program based on your formula is slow it's not inherent*
- > *in your formula but it is due to computer scientists who are quite*

> *unable to efficiently program it :-)*
>

No.

> > *Algorithms can be *derived* from it, but it's no more an algorithm
> > than
> >
> > $e = mc^2$
> >
> > *though some nutcase *could* call that an algorithm, if they were
> > trying to argue that it was not important.
> >
> > *But it's a formula, not an algorithm.
> >
> > *Algorithms are based off of formulas, not the other way around.
> >
> > > *You can also move to an explicit representation, for instance,
> > >
> > > $dS(N,2) = N/2 - 1$, with even N ,
> > >
> > > $dS(N,3) = \text{floor}((N-4)/6)$, if N is even, and $N > 2$, and
> > >
> > > $dS(N,5) = \text{floor}((N-16)/10) - \text{floor}((N-16)/30)$, N even, and $N > 6$, while
> > >
> > > $dS(N,7) = \text{floor}((N-8)/14) - \text{floor}((N-22)/42) - \text{floor}((N-106)/70) +$
> > > $\text{floor}((N-106)/210) - 2$, N even, $N > 36$,
> > >
> > > *and now, what gets put on the stack now?*
> > >
> > > *Huh? Isn't " $dS(N,2)$, $dS(N,3)$, $dS(N,5)$, $dS(N,7)$, ..." a list? And why
> > > do you index it with prime values (which, btw, makes useless your
> > > $(p(y, \text{sqrt}(y)) - p(y-1, \text{sqrt}(y-1)))$ whereas you claim you do not need
> > > a list of primes?
> > >
> > *The compressed explicit prime counting function exists as I've shown.
>
> *Which one makes use of an IMPLICIT list of values.
>********

That's what it looks like.

The math is simply rigid here, no matter how much you might like to make more out of it.

It just is.

> > *Notice it too is a formula and not an algorithm.
> >
> > *It just so happens that's what it looks like when you have it take
> > into account that N is even and 2 is prime.**

> >
> > *The math is rigid.*
>
> *Yes and that's your main problem. That's precisely because the math is*
> *rigid that you're almost always wrong. If making math was singing, you*
> *would sing out of tune.*
>

Then give a single wrong point I've made.

Give ANYTHING mathematical which will stand up to scrutiny.

Do more than insinuate, like talk straight for once.

> > *What I've given are the least computationally complex ways to do the*
> > *calculations shown, which makes them technology beyond what*
> > *mathematicians had before my work.*
>
> *Ways? Technology? You just said you gave a formula, just a formula!*
> *Is a formula a way? Is a formula a technology? Or did you give a*
> *formula, a way and a technology but NOT an algorithm?*
> *Frankly, are you not a little tired to continuously bullshit?*

Technology refers as a word to state of the art.

I can not only give state of the art in terms of explicit representations of the prime counting function, I can explain why it's state of the art.

> > *And again it's proof that my research IS in fact new and cutting edge.*
>
> *No, it is not new. It might be new for you but it is not for others.*

I've shown facts, and the facts support my position and refute yours.

> > *If not, then I challenge you to give formulas that have less*
> > *computational complexity,*
>
> *What does mean "having less computational complexity"?*

I mean formulas that have less computational complexity.

> > *or even just show that mathematicians had*
> > *these formulas before me.*
>
> *Legendre.*

Claiming something that has repeatedly been shown to be false does not make it true.

sci.math: Re: Partial difference equation, primes

I can kind of understand the hurt you feel, or maybe you feel betrayed because you think of mathematics as a social system which supports you, so it cannot in your mind support someone like me.

But your emotions do not change the mathematical truth.

> > *The reality is that I'm far ahead of mathematicians at every level,*
> > *when it comes to counting prime numbers:*
>
> *You already claimed the same about FLT, Goldbach Conjecture and*
> *integer factorization. And yet, I am not aware of all your 'research'.*

Sigh. So now you're trying to shift the subject to other topics with more claims that I guess you expect me to try to defend or refute.

I'm not interested in changing the subject at this time.

Straight answers.

Have you ever heard of straight answers?

> > *1. My prime counting function derivation is just neat.*
>
> *Subjective point of view.*

Well, I like it.

I think that anyone who compares it to what mathematicians have will agree that it's just neat, if they're objective.

> > *2. My prime counting function itself is beautiful and compact.*
>
> *Subjective point of view.*

See http://mathforprofit.blogspot.com/2004_03_01_mathforprofit_archive.html

where I put on a single-line an extraordinary formula that deserves a place in the mathematical literature, no matter how many sci.math'ers lie about that truth.

> > *3. I can outline the full theory that determines computational*
> > *complexity for fast prime counting.*
>
> *Wrong. A program using your Legendre variant CANNOT be fast.*

I've already written a fast algorithm which I call PrimeCountH.java, which you can find on sci.math.symbolic, see

Message-ID: <3c65f87.0209260859.65f35fdd@posting.google.com>

It's faster than Mathematica's prime counting function over I think a decent range, though at the top of Mathematica's range it is faster.

> > *I win on all counts.*

>

> *In your reality, maybe, but not in mine.*

>

I win in reality, while you are in your own little world.

In this one I make claims that stand because no one can refute them with facts as the facts are on my side.

I demonstrate while people like you make claims that you can't support, while you continually shift when your claims are challenged.

You lie repeatedly, as if lying were all that really mattered.

> > *Mathematicians win on obstinacy and sheer refusal to accept reality*

> > *that they don't like.*

> >

> > *They're weak.*

>

> *Whereas you're strong. Do you really believe that you could explain to M. Schumacher how he should drive? Well, considering your math level, that's exactly what you are doing with mathematicians when you claim that you can teach them something.*

And there I think you are the most honest yet.

You simply believe in *people* not facts, and you don't like me, so you think your feelings matter.

But you see, mathematics never has been nore will it ever be about your feelings.

To you a name like Schumacher is what's important. If I had a name you respected you'd probably fight all comers who dared to deny the importance of my work.

But it's not the name that's important.

It's the mathematics.

James Harris