Re: JSH: Resolution now possible

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From: Nora Baron (*norabaron_at_hotmail.com*)
Date: 10/17/04

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jstevh@msn.com (James Harris) wrote in message
news:<3c65f87.0410170613.507bf41f@posting.google.com>...
> After over two years of arguing on the specifics of my techniques of
> polynomial factorization which adds to even more years of arguing
> before about factorizations I think it's finally clear how to move to
> resolve all the issues:
>
>1. My position is that the definition of the ring of algebraic
>integers requiring roots of monic polynomials with integer
>coefficients is arbitrary and misleading in that you can have numbers
>properly units that are excluded on the technicality that they are
not
>roots of monic polynomials with integer coefficients.
>

The ring of algebraic integers was defined not arbitrarily, but as a natural way of generalizing the ring of integers. It is certainly true that in general it does not include multiplicative inverses of many of its elements. Neither do the integers. That was an intentional consequence of the definition.

>2. In support of my position I have given the full algebraic
argument
>showing a contradiction between numbers shown to have a specific
>factor, versus exclusion of that factor in the ring of algebraic
>integers based on a technicality.
>

Your argument leads you to believe that certain factorizations cannot occur in the ring of algebraic integers. Both you and I agree that such factorizations SHOULD occur. You, however, make a serious error based on misuse of the definition of the "constant term" of a function. From that you conclude that a factorization of the desired form cannot exist. However I have shown explicitly that such a factorization DOES exist in the ring of algebraic integers. Do you want to see that proof again? It is not the same as the only factorization that you have been able to imagine, but it meets the criteria.

Your conclusion also contradicts elementary Galois theory
and elementary algebraic number theory: INDEPENDENTLY.

Exclusion of, essentially, fractions from the ring of
algebraic integers is NOT a "technicality". That's like
saying, it's a "technicality" to exclude 1/3 from the
integers. It's straight from the DEFINITION.

>My work in this area has faced several formal peer reviews and not
>shown to be flawed,

Do you really think it has ever been sent out for peer review?
Anywhere? Have you ever seen any referees' reports saying it is
correct?

>though some sci.math'ers have diligently argued
>otherwise and even actively interfered in the journal process by
>sending emails to a journal that had a paper of mine, and succeeded
in
>cowing the chief editor Ioannis Argyros so that he withdrew my paper
>without proper cause and without even allowing me to defend against
>the charges the sci.math'ers made.
>
>They broke him completely.
>

Oh, sure − he's probably reduced to selling pencils on the
streets of Cameron, Okla.

No. This means nothing to Argyros. He totally screwed up,
but he swept the evidence out of sight and lied to you about
it. He goes on as if nothing had happened. If sci.math people
had had their way, he would have been removed as editor.

>3. I have outlined a complete ring I call the object ring based on
>two primary requirements:
>
> a. No rational unit other than 1 or −1 is in the ring.
>
> b. No non−unit member of the ring is a factor of any two integers
>that are coprime in the ring of integers.
>

These conditions are not sufficient to actually define a ring,
because many different rings satisfy both a. and b. For example:

1. Z

2. Z[any transcendental]

So more is needed to define it.

Is your ring a superring of the algebraic integers?

>Using that definition you can look back at numbers not units in the
>ring of integers and find that they are units in the ring of objects
>which shows how misleading the ring of algebraic integers can be.
>

It's not a definition. It is a pair of criteria which are
not sufficient to define a unique ring. You must require
other conditions.

Does it contain the algebraic integers?

>Basically you can have u_1 u_2 = 1, where u_1 is a unit,

in what ring?

>but while it
>is in the object ring it's not an algebraic integer because of the
>technicality that it's not the root of a monic polynomial with
integer
>coefficients, and that means that u_2 is not a unit.
>

Any divisor of 1 in a ring R by definition is a unit in
that ring. You just said

u_1*u_2 = 1,

which means that u_2 is a unit in ANY ring that contains both
u_1 and u_2.

>Then you might assume that u_2 because it's not a unit in the ring of
>algebraic integers is properly a factor of some other algebraic
>integer, when it's actually a unit factor.
>

You JUST ABOVE said u_2 is not a unit! I think you are trying
to say something that might be true, but at this point you
are just contradicting yourself. You're talking gibberish.

>>From there you can continue to build a huge edifice of error, and
>unfortunately that is what occurred as an entire branch of
mathematics
>was built up from this simple error.
>

Look. You seem to think that the ring of algebraic integers
is defective because it fails to contain quotients of some of
its members. The latter is true. It is *not* an error. If you

want quotients, go to the ring of algebraic numbers.

>My mathematical position is absolutely solid,

It's solid crap.

>which leaves posters
>arguing about the details trying to convince that constants are not
>constants, though I can show they are relying on unit factors to make
>their arguments.
>

Here is your argument about constants.

First, you define the "constant term" of a function, h(m), to be h(0).

That's fine. No problem with that definition.

Then you consider a function g1(m) = a1(m)*x + uf,

where a1(m) is a variable function, a(0) = 0, and u and f are constants with respect to m.

Then you consider what happens when you divide g1(m) by another variable function v1(m). You know v1(0) = f. You define

h(m) = g1(m)/v1(m) = (a1(m)/v1(m))*x + uf/v1(m).

Clearly, you say, uf is the constant term of g1(m).

Therefore uf/v1(m) must be the constant term of h(m).

But by definition, the constant term of h(m) is h(0):

h(0) = uf/v1(0) = uf/f = u.

Therefore, setting the constant terms equal, you have

uf/v1(m) = uf/v1(0) = u,

so you conclude that v1(m) = u FOR ALL m!

Right? Is this your argument?

>However, despite repeated explanations these posters continue with
>their assertions, and they have shown a willingness to step far out of
>bounds like with their coordinated email assault on my paper that went

>to the Southwest Journal of Pure and Applied Mathematics:
>
>http://www.emis.de/journals/SWJPAM/vol2−03.html
>
>My take on the issue is that since it's readily explainable by using
>analogies like
>
>x^2 + 4x + 3 = (x + 3)(x + 1)
>

Reducible. Not analogous, but essentially different.

>
>and talking about how a corollary doesn't exist in the ring of
>algebraic integers that I can get some people to think about the
>silliness of fighting over arbitrary convention, as if just because
>some people over a hundred years ago put up a definition you can
throw
>out algebra!
>
>Over time some people should understand the argument, and see through
>the tactics used against me to gain an ever more negative opinion of
>the math community.
>
>Over time that negative opinion, especially given that math
professors
>continue to teach erroneous ideas−−now possibly deliberately giving
>young minds false information−−will likely move to specific actions
>against the math community, well within most of your lifetimes.
>

Don't hold your breath.

>Given societies propensity for harsh penalties, some of you may face
>jailtime or significant loss of personal fortune, along with a great
>deal of shame.
>

This is sheer delusion.

>My suggestion at this point is objectivity.
>

Good.

>If I'm right you have nothing to gain and everything to lose by
>fighting correct mathematical results.

Absolutely correct. That makes excellent sense, unlike almost everything else you have said here. We would be TOTAL FOOLS to fight correct math. Eventually we would be caught and punished

and shamed.

And that's why we have no qualms, no trepidation, about opposing you. Your math is simply flat−out wrong.

>While you may feel that you
>can win, that is the typical criminal thinking that helps to keep our
>world so interesting.
>
>Criminals usually think they'll get away with it, so if you wish the
>adjective "criminal" added to you, properly, and face a very angry
>society down the road, as people take education kind of seriously,
>then continue as you have been doing.
>

Apply any label you want, criminal, evildoer, Adolf Hitler, whatever. Your math is still flat−out wrong.

It contradicts basic Galois theory.

It contradicts basic algebraic number theory.

It even contradicts ARITHMETIC. See Dale Hall's computation. No, there is no hidden assumption. It's just arithmetic. You can work it out for yourself.

>Huge universities like Princeton or Harvard can be brought to their
>knees on this issue, and your academic colleagues probably won't be
>appreciative of the massive black eye that academia can get.
>

This is more sheer delusion. Plus Princeton and Harvard are only medium−sized.

>Alternatively, you can simply start playing fair, and I say start
>since sci.math'ers have repeatedly stepped over bounds, from nasty
>webpages including copyright violations, to coordinated email
>assaults, to just plain meanness in lots of little ways.
>
>You have presented a story of hostility toward the world and against
>the truth, and even if you feel that was other sci.math'ers, don't
>make the mistake of thinking life is fair.
>
>If a few years from now, you're sitting in a jail cell, wondering how
>you got there, or wandering the streets, unable to get a job, then the
>door will have been closed as you will not be able to come back to
>now.
>

I am fed up with your whining and bluster and threats. It is clear that you are not going to win here and you are not going to win with math journals. So hire a lawyer. Hire a competent mathematician to act as an expert witness. If you pay enough, someone will do it. If you are right, you will win in a court of law, and that should settle this once and for all. If you are right you have a huge amount to gain. If you are wrong, at least you may finally understand why.

Here's another possibility. Find a mathematician in Atlanta or Athens who has never heard of you but who has expertise in algebraic number theory. Offer him/her a fee to review your paper, "Advanced Polynomial Factorization". First though fix the error in the line

(m^3 f^6 − 3m^2 f^4 + 3m)x^3 − 3(−1 + mf^2)xu^2 + u^3 = 65x^3 − 12x + 1.

Offer him/her $1000−3000 up front if necessary. Make the payment conditional on getting a full detailed report on the validity or invalidity of the paper. This is like going to a reviewer, except here, you are guaranteed to get an answer, almost certainly an honest answer. If he/she says the paper is OK, you've got a case. Then go hire the lawyer and take us to court. Your fantasies about sending us to jail won't happen, but certainly you could win huge damages for libel and defamation.

Think about it. If you are really confident you are right, it's worth the paltry $1K−3K. And it may be your only real recourse at this point.

In fact, if you are NOT confident you are right, why are you continuing to post here?

Nora B.

>
>*James Harris*