

Re: Fractional Transforms

Source: <http://sci.tech-archive.net/Archive/sci.math/2008-12/msg02235.html>

- *From:* "rancid moth" <rancidmoth@xxxxxxxxxx>
 - *Date:* Wed, 17 Dec 2008 17:23:36 +1100
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"David C. Ullrich" <dullrich@xxxxxxxxxx> wrote in message
news:cq3fk41t3gs8totagrjhj8fk0k2mibrd6@xxxxxxxxxx

On Tue, 16 Dec 2008 16:20:10 +1100, "rancid moth"
<rancidmoth@xxxxxxxxxx> wrote:

"David C. Ullrich" <dullrich@xxxxxxxxxx> wrote in message
news:amgdk4h906qlra8m60tgiqisbn5nkgs7ka@xxxxxxxxxx

On Mon, 15 Dec 2008 14:05:57 -0600, Robert Israel
<israel@xx> wrote:

David C. Ullrich <dullrich@xxxxxxxxxx>
writes:

A few days ago I decided
there was no point,
considering the audience,
in pointing out that the
existence of a T with $L = T^2$ is clearly
impossible if we interpret
things very strictly. We have
 $L: X \rightarrow Y$ where X and Y
are very different spaces of
functions.
If T were a functional
square root of L then we'd
need to have
somehow $T: X \rightarrow Z$ and also
 $T: Z \rightarrow Y$; if we take T to
have
a well-defined domain and
co-domain then it follows

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that
 $X = Y$. Of course this
doesn't quite rule out the
existence
of some kernel that does the
job at least formally.

On the other hand there are spaces X such
that $L: X \rightarrow X$.
For example, let X be the space of
continuous functions f on $(0, \infty)$
such that $x^{1/2} f(x)$ is bounded.

Heh, very good – I considered the possibility of such an X
existing
but didn't think of this simple example.

(Readers who are wondering why this X has that property
should contemplate the Laplace transform of $1/t^{1/2}$...)

[cut]

Yes. i was wondering about that.

Also – what do you mean “..there was no point, considering the
audience...”

I said there was no point, referring to a time in the past
when you were not part of the audience.

I know i'm a little wayward with my mathematics, but generally i'm ok and
get there in the end...or at least i thought i was ok.

At the very least i thought i was polite enough to post and get responses.
perhaps not.

??? You got a response. From me.

David C. Ullrich

"Understanding Godel isn't about following his formal proof.
That would make a mockery of everything Godel was up to."
(John Jones, "My talk about Godel to the post-grads."
in sci.logic.)

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My bad. I didnt realise you had a running dialouge/history with amy666.

Thanks for the response – from both you and Robert.

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