Re: Fractional Transforms

Source: http://sci.tech−archive.net/Archive/sci.math/2008−12/msg02119.html

- *From*: David C. Ullrich <dullrich@xxxxxxxxxxx>
- *Date*: Tue, 16 Dec 2008 05:23:09 −0600

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

> "David C. Ullrich" <dullrich@xxxxxxxxxxx> wrote in message
> news:amgdk4h906qlra8m60tgiqisbn5nkgs7ka@xxxxxxxxxx
>
> > On Mon, 15 Dec 2008 14:05:57 −0600, Robert Israel
> > <israel@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:
> >
> > > David C. Ullrich <dullrich@xxxxxxxxxxx> 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 −> 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 −> Z and also T:Z −> Y; if
> > > > we take T to have
> > > > a well−defined domain and co−domain then
> > > > it follows 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 −> 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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