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Subject: Re: wavelet software for idl  
Posted by [agrap](#) on Wed, 13 Sep 1995 07:00:00 GMT  
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Previously I wrote:

> hahn@hrz.th-darmstadt.de (Norbert Hahn) writes:  
>> I've read that some time ago that the wavelet transformation  
>> has been patented in the U.S.

> Do you remember where you read that? I'm finding it really hard  
> to believe. The wavelet transform, wavelet packet transform, etc.  
> are in use all through the sciences.

And I realized that I was far too vague, because I have some strong opinions on this.

(rant mode on)

I would not be surprised if some US lawyer tries to patent wavelet transforms but it boggles my mind that anyone would make the attempt. What aspect could they patent? If they try to patent one of the orthogonal basis functions, well there are an infinite number of them! So then we have  $(\infty-1)$  left to use. And if they try to patent the transform technique, well that is simply a set of convolutions, which are simply multiplications. So are they going to patent multiplication on the computer?

I have heard of people in the digital signal processing field (don't know the details) patenting algorithms by implementing that set of algorithms into hardware. I think that is a dirty trick.

Wavelets have been around in concept since Fourier, in fact fourier analysis could be thought of as a subset of wavelet analysis, and I haven't heard of anyone trying to patent Fourier Transforms. OK, rant mode off.

"Christian Oehrener" asks:

> I need wavelet software for IDL. Who knows where i can get it?

I decided that this is as a good a time as any to say this.

I've been working on IDL wavelet software for quite some time. When it's complete, it will have at least (more functions may be added later) the following capabilities:

Discrete WT, Scalegram, Multiresolution Analysis, Wavelet Packet Analysis, Wavelet Transform Compression, Wavelet Packet Compression,

Wavelet Threshold DeNoising plus ~1 dozen 1D/2D Datasets (+user-defined), and ~1 dozen generated signals (Doppler, Chirp, Ramp etc)

I've implemented about 2/3 of the above.

I will need beta-testers for later this Fall.

I would welcome some interesting data sets.

But my software is \*NOT\* now "ready-for-prime time" !!

So consider the above only if you think you might want to try these techniques sometime in the near future, but are not in a hurry to use them now.

If anyone would like to be beta testers (you must be an IDL user) and/or notified when it is complete, please email me ([agraps@netcom.com](mailto:agraps@netcom.com)) and tell me:

- 1) your name and email address and
- 2) if you have a WWW browser (to see the development and give feedback)

Amara

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"Gentlemen! You can't fight here! This is the War Room!"  
-Dr Strangelove