Subject: Re: Butterworth Band-Pass Filter
Posted by David Fanning on Sun, 12 Dec 2010 16:56:47 GMT
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burton449 writes:

> According to your documentation, a high-pass butterworth filter will
> be defined like that:
> filter = 1 / [1 + C(Ro/R)^2n]
>
> So in IDL, for a cuttoff of 15, and freqImage = FFT(image, -1), the
> filter will be defined like that:
> filter = 1.0 / (1.0d + (15.0/freqImage)^2)
>
> Is it right?

No, what you are calling freqImage is called freqDomainImage
in that example. What you want is something like this:

```
s = Size(image, /Dimensions)
filter = 1.0D / (1.0D + 15.0/Dist(s[0],s[1]))^2)
```

In other words, what you are calling "freqImage" in
the filter is actually built with the DIST function,
and is different from the freqDomainImage, which is
defined like this:

```
freqDomainImage = FFT(image, -1)
```

Cheers,

David

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Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")