Subject: Re: Butterworth Band-Pass Filter Posted by burton449 on Sun, 12 Dec 2010 16:29:32 GMT

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On Dec 11, 11:37 pm, David Fanning <n...@dfanning.com> wrote:
> burton449 writes:
>> as mentionned in the topic, i want to do a Butterworth Band-Pass
>> Filter on a 9166 X 4600 pixels image.
>> The doc of butterworth.pro in the astrolib explain how to use the
  script for a lowpass filter, but not for a band-pass and a high-pass.
>> Have any idea how to do?
>
> You need to read my new book. In the meantime, you
 can find an explanation here:
   http://www.dfanning.com/ip_tips/freqfiltering.html
>
  This describes a low-pass filter, but the equation for
> the high-pass filter is there, too. Just replace the
 low-pass filter with the high-pass version. :-)
>
 Cheers,
 David
>
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.dfanning.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
Thank you again David for your help,
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?
Thanks again
Max
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