
Subject: Re: Request for guidance/advice related to time series analysis and forecasting using MODIS imagery

Posted by [David Fanning](#) on Mon, 04 Feb 2013 14:02:47 GMT

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Mattijn van Hoek writes:

>
> Hello folks,
> I have read in my recently acquired IDL books (from Fanning, Bowman and Gumley) that this Google group is they number one place to be on the internet. By far. I've followed this group for a month and a half and today, I'm going to change my position from being an observer to a participant (yeah!).
>
> With the use of Harmonic Analysis, I have computed 6 time-series with different, but related, anomalies based on the MODIS imagery from the last 10 years.
>
> I would like your opinion/guidance/advice on the following:
>
> 1. What type of spatio-temporal analysis on 6 time-series are possible? And what would you suggest? Cross-dimensional wavelet analysis, multi-dimensional Fourier transform or something else?
> 2. Based on these anomalies I would like to do some short-term spatio-temporal forecasting (1 week). And again, my question what type of time-series forecasting method would you suggest? Wavelet aided time series forecasting, Artificial Neural Networks, Autoregressive models, Wavelet Neural Network or something else?
>
> Hopefully I have been able to make myself clear. If not, please punch me in the face, and I will try to do it again.

Well, welcome! It is always nice when someone comes out of the shadows to join our discussion. It is stimulating.

I don't wish to discourage anyone who still appears to read (and purchase!) books, but I suspect these questions may not elicit a lot of answers, and I want you to know it is not because we are unwelcoming of new folks. Rather, these appear to be science questions, not IDL questions. And, while I may be alone in this regard, I find them confounding. (I wouldn't recognize cross-dimensional wavelet analysis if it came up to me and bit me in the butt.)

On the other hand, all kinds of people with all kinds of expertise have been known to hang out here, so there is always a chance someone will know exactly what you are talking about. But, I've been doing this for a long, long time, and this is just the kind of question that often appears on a Monday morning and serves to start the week off on a very dismal note for me. Reminding me, I suppose, of how little I really know about so many, many things. :-)

Cheers,

David

P.S. Let's just say the only ray of hope for me in your question is that it didn't start off with the usual "I'm a novice IDL programmer and I have a very simple question...".

--

David Fanning, Ph.D.

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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")
