
Subject: Re: Polynomial Fitting question

Posted by [Andrew Rodger](#) on Fri, 02 Oct 2009 13:24:17 GMT

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>
> I suggest you run the IDL profiler on your code (maybe you did, but it
> is not mentioned in your post) to see what is causing the delay.
>
> Allard

Hi Allard,

shamefully I have not run the profiler yet :(

I will do that first thing monday. I am in fact working with airborne hyperspectral datasets (HyMap) and am fitting polynomials to various surface absorption features (Fe, leaf water, cellulose etc). The polynomial fit is not the ideal and is only the first cut (although it does work well with the broader features) and I will move to gaussians at a later date.

This part of the processing is after I have performed the atmospheric compensation (radiance to reflectance) and a spectral recalibration of the band centres. I have this whole process running from go to whoa in 3-5 minutes. This latter aspect (the fitting of the surface absorptions) which allows me to determine content and composition data based on the surface reflectance is painfully slow compared to the initial processing and is driving me crazy.

It just seems that there must be others who want/need to fit equations on a per-pixel basis (yourself included by the sound of it) but do not want to have to run through the looping process (seems decidedly like an unIDL way). I am not sure how large your datasets are but mine are 512 pixels by anywhere from 3000-11000 lines. This is probably small to some folks.

I will give the profiler a go and see if I can chase this down a bit better.

Cheers
Andrew
