Subject: wavelength calibration
Posted by Gray on Tue, 01 Nov 2011 14:08:51 GMT
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Hello IDL gurus,

I have a night-sky emission spectrum (from my data), and a list of irregularly-gridded night-sky lines (from the literature). I'm trying to perform a wavelength calibration of my data; I have a quite poor zeroth-order solution already.

My best idea so far was to perform a cross-correlation of the two data sets to find the wavelength shift and then do some least-squares fitting to find a better solution. However, I'm not sure how to perform the cross-correlation.

My data is in the form:
(a) n-element array of spectrum data points
(b) n-element array of zeroth-order wavelengths
(c) m-element array of night-sky emission line wavelengths (irregular)
(d) m-element array of night-sky emission line strengths

So my questions are:
1) How do I compute the cross-correlation between these two sets of data?
2) Is this the best way to go about it?

Thank you as always...
--Gray