Subject: Re: Least square fitting
Posted by MichaelT on Tue, 20 May 2008 14:06:48 GMT
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Thanks for your thoughts, Chris!

But I think the field of view is not small enough to do it this way (about 3.5° x 2.5° and larger). The focal length is shorter than 400 mm. Otherwise, it could very well work the way you described it, I think.

These are the things I'd like to do in the end:
I have several images of the same object, but from different nights taken with an amateur instrument. So the fov is slightly different each time as well as the rotation angle (it's not a stationary scope). Knowing all the parameters would enable me to exactly overlay the images to increase the signal-to-noise ratio. I know that there are various free programs (non-IDL) that can already do that, but they all have some shortcomings. So I tried to do something myself.
Also, you could then use some neat routines from the IDL astronomy library (http://idlastro.gsfc.nasa.gov/) and automatically generate an overlay from the USNO catalog to determine the limiting magnitude or to label objects (e.g. queryvizier and querysimbad).
There are many other things you could do if you knew the pixel-to-coordinate conversion.

Michael