Subject: Re: Adding/Subtracting/Multiplying images together
Posted by wlandsman on Wed, 09 Mar 2016 15:04:22 GMT
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On Wednesday, March 9, 2016 at 9:04:54 AM UTC-5, rrya...@gmail.com wrote:
> Soniya...
>
> This is a very tough question to answer, because it depends critically on the properties of the images to add and the (desired) property of the result.

I agree with this and only add a couple of comments. First, hastrom.pro uses the IDL internal function POLY_2D(), and so allows both bilinear and cubic interpolation. I find that setting CUBIC=-0.5 works well for high signal to noise data.

Among the reasons for co-adding images are to create a prettier picture, to improve photometry, and to identify weak features not visible on a single image. For a prettier (higher S/N) picture, the particular interpolation method is not very important. For precision photometry of a bright source, it is often better to perform the photometry on individual images and then statistically coadd the photometry results. (I was involved recently in a project like this where drizzle interpolation gave surprisingly poor results.) In other cases, yes it is something of an art to determine the best interpolation method (and not all methods are easily available in IDL).