Subject: Re: New Image Processing Routines
Posted by Paolo Grigis on Mon, 06 Mar 2006 10:20:52 GMT
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J.D. Smith wrote:
> Looks good, David. If you really want to impress astronomers, you might
> add a few range compression methods:
>
> 1. histogram equalization (done well, is rare).

> 2. The ASINCH scaling, which is linear at the low end, and logarithmic
> at the high end (which is about perfect for showing noise properties and
> high contrast features all at once).

I have used log(x+const) as a scaling for that purpose (where the ratio of const to the noise level controls how much the noise is emphasized), and was quite happy about the results for X-ray dynamic spectrograms.

I guess the results are probably quite similar to the asinh scaling, after all both functions are close to each other. I'll try out the asinh scaling next time I'll need that kind of rescaling. Thanks for the tip.

Ciao,
Paolo

Robert Lupton wrote such a beast
> in IDL already:
>
> http://cheops1.uchicago.edu/idlhelp/sdssidl/plotting/tvasinh .html
>
> His website links to a little paper describing the method (which has
> some very nice properties, but occasionally produces strange-looking
> images:
>
> http://www.astro.princeton.edu/~rhl/PrettyPictures/
>
> The trick will be coming up with an easier way to set the 2 parameters
> required that affect the scaling.
>
> JD