Subject: Re: Image error calculation
Posted by Maxwell Peck on Thu, 01 Apr 2010 07:42:12 GMT
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I have a feeling there is probably a 'proper' way to do this but
perhaps you could use something like Sobel edge detection filter
(http://idlastro.gsfc.nasa.gov/idl_html_help/SOBEL.html) which
calculates the magnitude of the gradients in the image. Sharper lines
I would think have a larger gradients than blurred areas so perhaps a
difference between the Sobel detected 'improved' image and the Sobel
detected original image may give some indication? I'm not sure if
you'd have to average the result somehow because of the blurring
itself though...

Max

On Apr 1, 2:07 pm, Suguru Amakubo <sfa2...@googlemail.com> wrote:
> Sorry about that, what I will consider to be a better quality image is
> that the details of the structures (DNA) could be identified better.
>
> So in a nutshell if I see the new image and see more details that was
> previously unidentifiable (due to partial bluring) that I consider to
> be a better image. A 'sharper' image will probably best describe it.
> However the problem lies in quantifying it. (Since saying this image
> looks better just won't do. It needs to be: e.g. x % better than the
> original image).
>
> As for the how I made the image, I basically used one image as a
> 'base' and the took 22 different images of the same DNA that was taken
> immediately after each other and then split the new image into smaller
> subset images and mathematically found a point that is considered to
> be similar and placed it on top of it (then divided to get the end
> image).
>
> My aim therefore is to compare the base image with the new image and
> determine quantitatively by what degree the image has improved.
>
> Sorry about the lack of explanation. Please tell me if the above needs
> explaining further.
>
> Suguru