Subject: Re: Q: about Richardson_Lucy Alg. (deconvolution)
Posted by edward.s.meinel on Fri, 16 Jul 1999 07:00:00 GMT
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In article <7mlo5npps1@sylvester.vcn.bc.ca>,
  "Herbert H. Tsang" <tsang@vcn.bc.ca> wrote:
>
> Anyone is familiar w/ the Richardson_Lucy Deconvolution alg.? I have found
> a IDL program (lucy_guess.pro) that claims to perform this deconvolution.
>
> However, when examining the code I am not quite sure if it is correct. in
> lucy_guess.pro line 89 it has this loop
> for k=0,n_iter do begin
>   weight = convol(old,psfr)
>   new   = old * convol((data/weight) ,psf)
>   old   = new
> endfor
>
> but shouldn't it be
>   for k=0,n_iter do begin
>   weight = convol(old,psfr,/edge_truncate)
>   new   = old * correlate((data/weight) ,psf)
>   old   = new
>   endfor
>
> Any idea??

You are correct about the correlation step: the inner operation is a
convolution used to simulate the imaging process; the outer operation is
a correlation. Whether to use /EDGE_TRUNCATE or not is up to the user.

Ed Meinel

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