Subject: Re: Radon forward projection problem
Posted by Wox on Wed, 23 Apr 2008 10:02:37 GMT
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On Wed, 23 Apr 2008 00:42:07 -0700 (PDT), VP <peter.vontobel@psi.ch>
wrote:

> Hi
>
> please compare your sinogram with the following:
>
> estsinogram=radon(tomogram,rho=rho,theta=theta,ntheta=nangle s)
>
> compare the rho and theta values and read the IDL radon help pages.
>
> HTH
>
> Peter

So basically what you're saying is: don't undersample.

However, now there are more zero's in the sinogram. Let me explain
what I want to do. The algorithm I was talking about (OSEM, although I
think it's really called MLEM, I'm not sure) goes like this
(BP=backprojection, FP=forward projection):

========Pseudo-code========
sino1=sinogram with all 1's
tomo1=BP(sino1)

tomo=tomogram with all 1's
for i=0,niter-1 do begin
 estsino=FP(tomo)
 tomo = tomo * BP(sino_measured/estsino)/tomo1
endfor
==========

You see that "estsino" and "tomo1" can't have zeroed pixels. Off
course, I tried replacing the zeroed pixels by 1, max(rest),
min(rest), etc... But this gives some artifacts in the resulting
tomogram. Any ideas?