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Subject: Radon parameters

Posted by [Tim\[1\]](#) on Mon, 26 Jul 2004 17:28:59 GMT

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Dear all,

This sort of question has come along before, but I'm still not able to give the correct parameters to the RADON function.

The situation is as follows. I have 73 experimentally obtained projections of an object, each 193 by 193 pixels. This should give me 193 sinograms, each 193 by 73 pixels. For each sinogram, I wish to produce a backprojection, and I can do this using the obsolete RIEMANN command, but I'd like to do so with the RADON function eg,

```
IDL> bp = RADON(/backprojection, sinogram, THETA=theta, RHO=rho)
```

The 73 projections were taken over an angular range -70 degrees to +74 degrees, with 2 degree increments. I am thus setting 'theta' using,

```
IDL> theta=(2*FINDGEN(73) - 70) * !DTOR
```

But, what of rho? I think that this should be a vector of 73 elements, but I can't fathom the rationale behind how it should be formed. RADON reports that "ARRAY, RHO, or THETA dimensions are incompatible", and I'm pretty sure the RHO's to blame.

Any advice?

Thanks,

Tim

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