
Subject: Re: Image analysis and ring identification
Posted by [Karsten Rodenacker](#) on Fri, 19 Apr 2002 07:14:38 GMT
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Without proposing completely ready written routines. Maybe you do:

1. Contour with path_xy on you (binary) image. You get pathes for the outer and inner border (there is a flag in path_info)
2. Take the outer border path say xy from one 'ring' and calculate a normalized contour path, by:

```
nxy=fft_norcur(xy,centr=av,size=sz,perim=p)
```

as far as I remind me in av you will find the centroid coordinates, in sz the radius and in p the perimeter.

```
FUNCTION sh_dist, xy
  L = sqrt(sh_diff(reform(xy[0, *]))^2+ $
    sh_diff(reform(xy[1, *]))^2)
  return,L
end
FUNCTION fft_norcur, xy, CENTROID=cav, FACTOR=av, SIZE=sz, PERIMETER=p
  dim=(size(xy))[1]
  n=(size(xy))[2]
  d=sh_dist(xy)
  vd=fltarr(dim,n)
  FOR i=0,dim-1 DO vd[i,*]=d
  cav=total(xy*vd,2)/total(vd,2)
  oxy=xy
  oxy[0,*]=reform(xy[0,*])-cav[0]
  oxy[1,*]=reform(xy[1,*])-cav[1]
  p=total(d)
  tt=oxy[0,*]^2+oxy[1,*]^2
  sz=sqrt(total(tt))
  av=total(sqrt(tt)*d)/p
  return,oxy/av
END
```

Regards

Rachel Pepper wrote:

- > I am a fairly new IDL user trying to use image analysis to determine
- > particle positions in my images. After filtering the images, they
- > appear to be bright rings around a dark center. I was wondering if
- > anyone knew a routine to fit these sorts of images to a circle so that
- > the center of the ring could be determined. Thanks for any help!
- >
- > Rachel

>
>

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Karsten Rodenacker ()

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