
Subject: area of symmetric differences of contours

Posted by [Markus Schmassmann](#) on Fri, 05 May 2017 15:47:29 GMT

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Hello,

does anyone here know of a function/procedure, that calculates the area of symmetric difference from contours?

https://en.wikipedia.org/wiki/Symmetric_difference

```
;---
```

```
; input:  field1, field2, lim1, lim2, offsetX, offsetY
```

```
contour,field1, path_info=li, path_xy=lines, $  
  /path_data_coord,levels=[lim1], /path_double  
n1=max(li.n,jmax1)  
line1=lines[* ,li[jmax1].offset+lindgen(li[jmax1].n)]  
contour, field2, path_info=li, path_xy=lines, $  
  /path_data_coord,levels=[lim2], /path_double  
n2=max(li.n,jmax2)  
line2=lines[* ,li[jmax2].offset+lindgen(li[jmax2].n)]  
line2[0,*]+=offsetX  
line2[1,*]+=offsetY
```

```
print, area_symmetric_difference(line1,line2)
```

```
;---
```

I've been working on such a function for a few days and always find a new special case that breaks my code, so I thought I asked here whether somebody else already solved that problem.

Markus

PS: I'm looking for an exact geometric solution, not one where I count pixels of a mask.
