

Implementation of Active contour without edge

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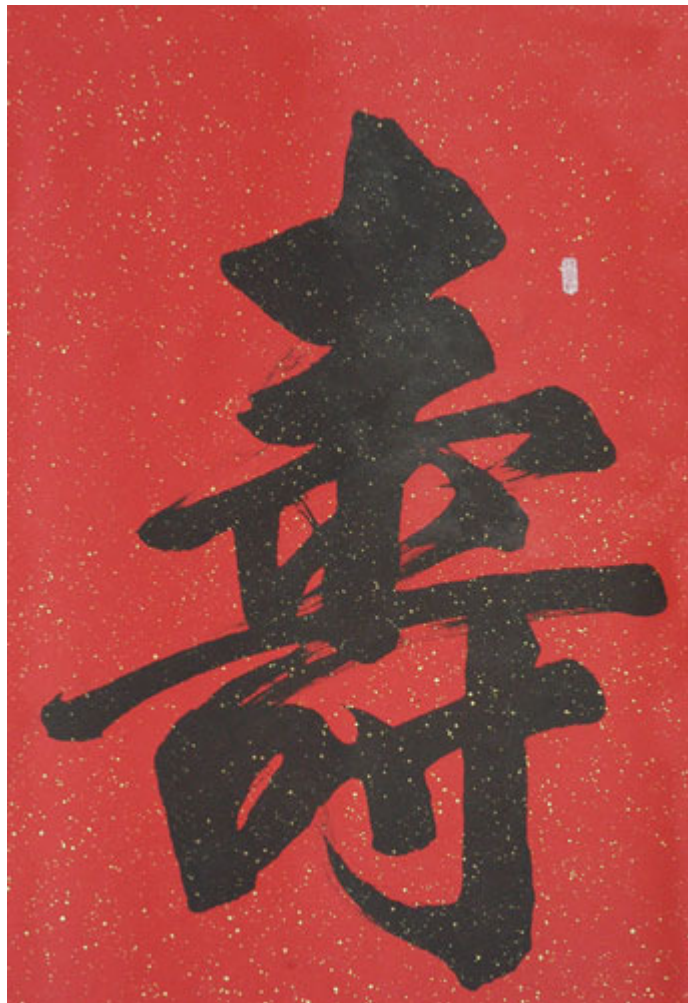


Fig1. original image.

Demonstration:

Now we try to draw the contour of the above Chinese character using active contour without edge algorithm[1] with the following command:

```
img = imread('shou.jpg'); img = rgb2gray(img);  
demo_acwe(img, 100);
```

Note:

To avoid reinitialization, we applied the level set regularities term[2], see 'acwe.m' for details. Fig2 & Fig3 show the result.

Final contour, 100 iterations

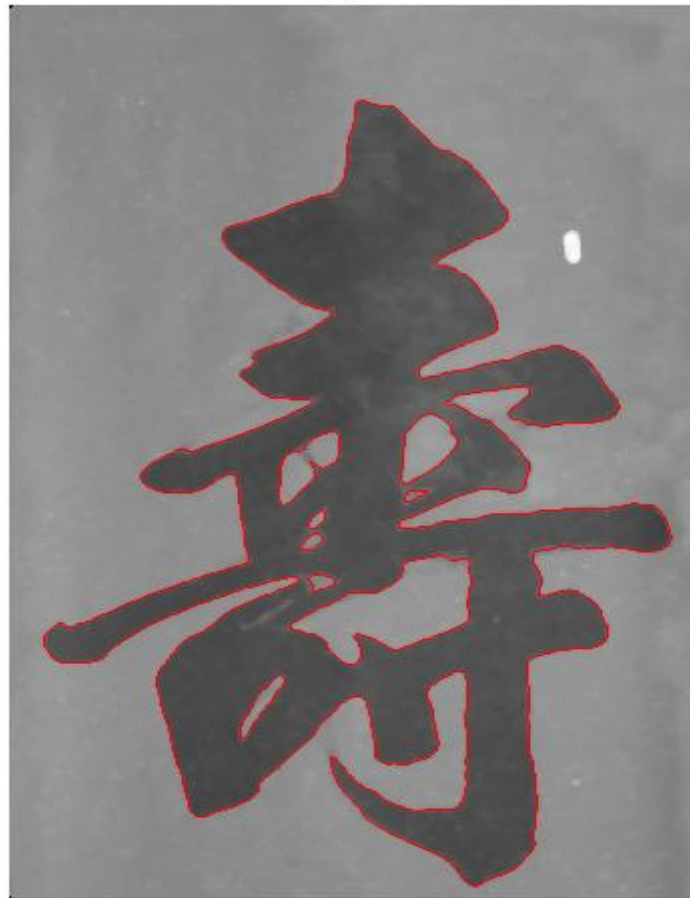


Fig2.0-level of the level set function ϕ

Final level set function



Fig3 color map(jet) of the output level set function ϕ .

Acknowledgement:

The author wish to thanks Li chunming for his clearly coded distribution:

<http://www.mathworks.com/matlabcentral/fileexchange/12711-level-set-for-im>

Reference:

[1]. Active contour without edge. chan etc

[2]. Minimization of region-scalable fitting energy for image segmentation.

IEEE Trans. Image Processing, vol. 17 (10), pp.1940-1949, 2008.by Li chunming etc.