

SHOULD I TRUST THIS IMAGE ?

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Computer !
Help me !

Is this image forged ?



Can I find similar images?



Query



Candidate 1



Candidate 2



Candidate 3



Candidate 4



Candidate 5

How these images differ?

Detecting the outliers



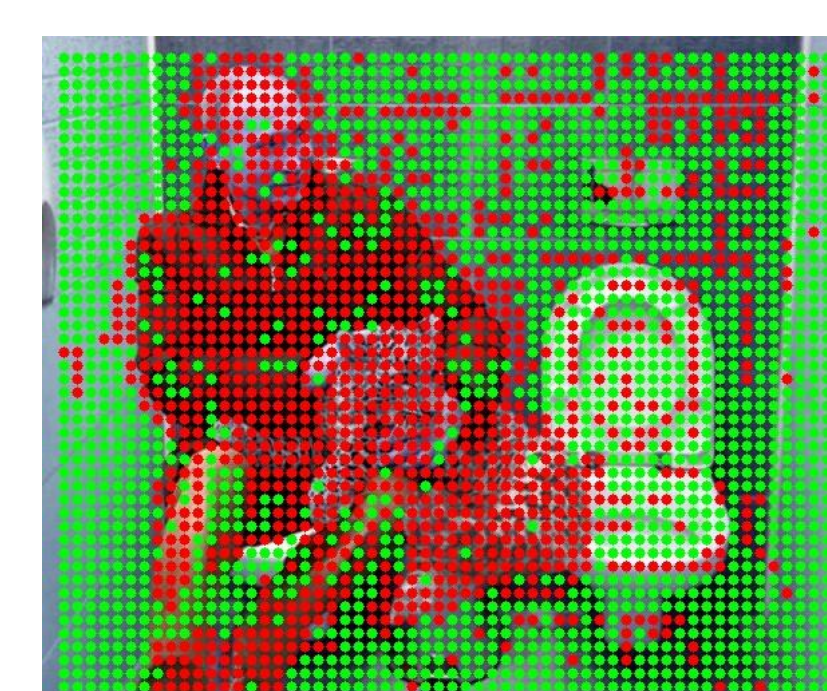
Query



Selected candidate

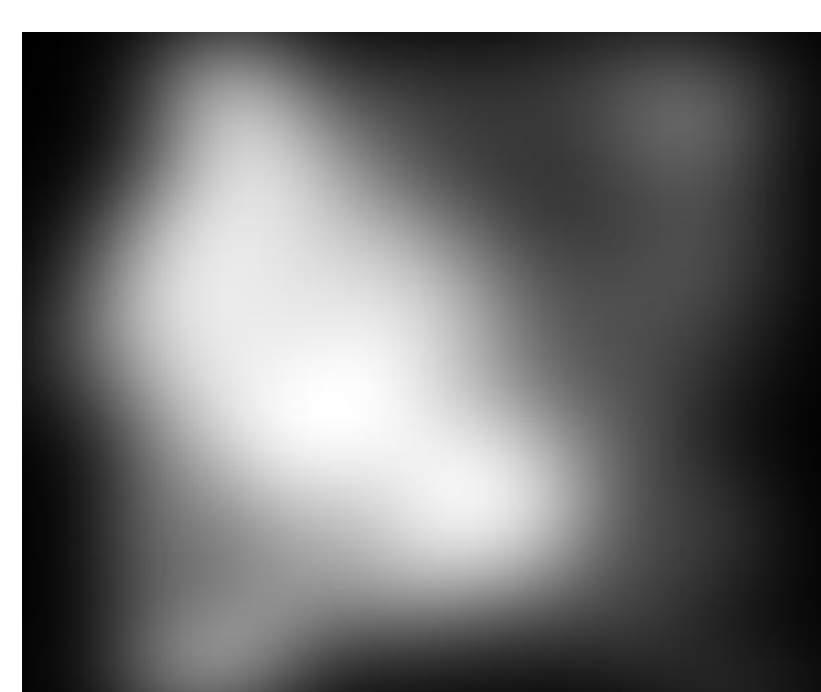


Estimated homography

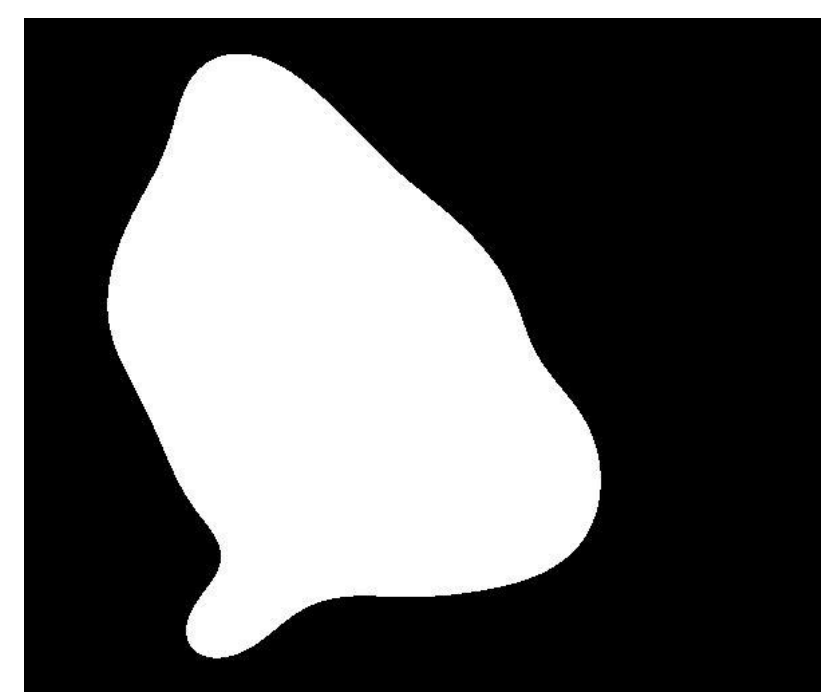


Outliers

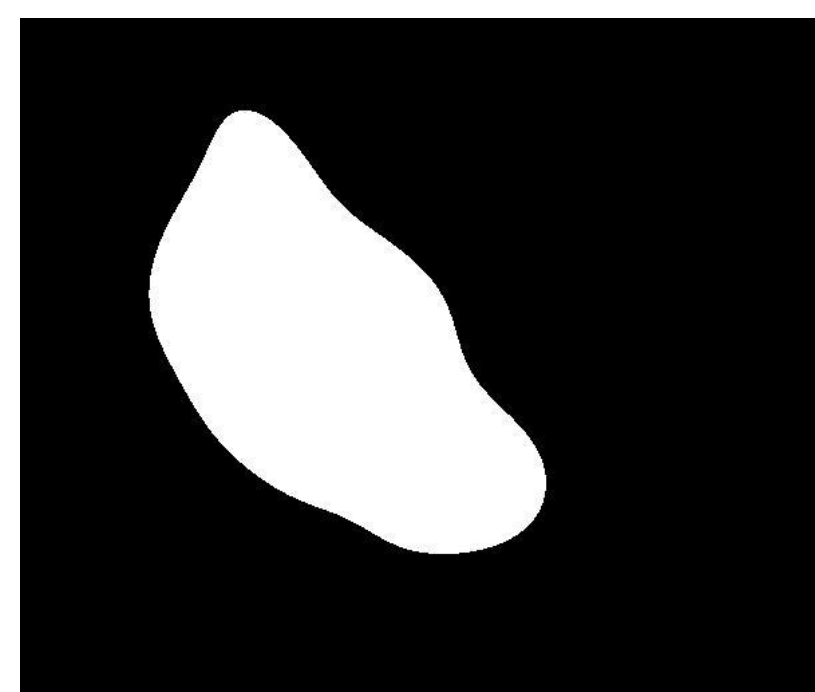
Transforming the outliers into a binary map



Outliers density map (DM),
gaussian kernel



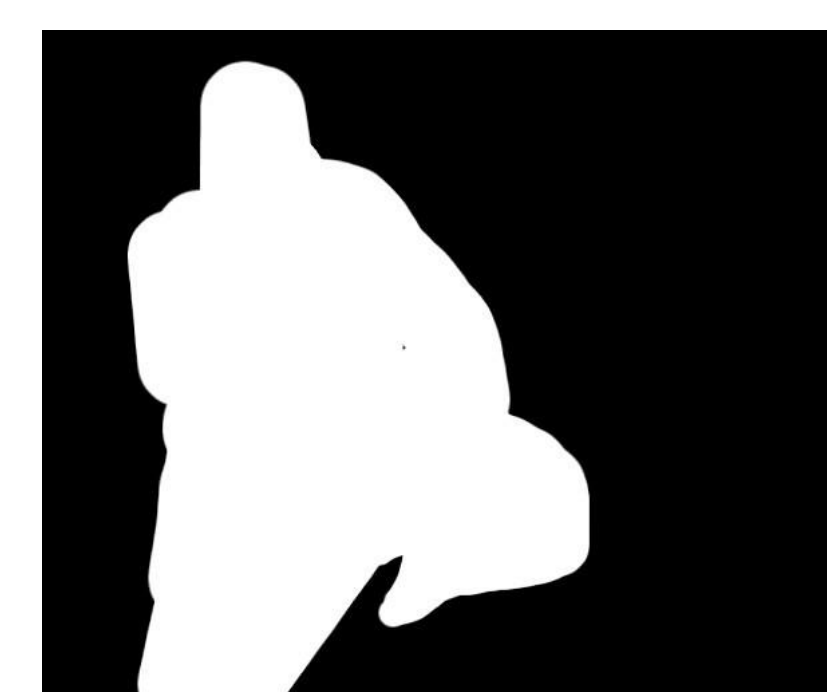
Binarized DM
($\theta = 0.50 \times \max$)



Binarized DM
($\theta = 0.75 \times \max$)



Binarized DM,
uniform kernel



Ground truth

Ok, and then, what can be said?

Modifications characterization



Detected area extraction
($\theta = 0.50$)

Type of modification:

Text

Shape

Person

Other

Which one is the original image?

Is there any visual information relevant
to identify the original image?

