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Should I trust this image ?

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► **To cite this version:**

Cédric Maigrot, Ewa Kijak, Vincent Claveau. Should I trust this image?. WIFS 2017 - 9th IEEE International Workshop on Information Forensics and Security, Dec 2017, Rennes, France. pp.1. hal-01844080

HAL Id: hal-01844080

<https://inria.hal.science/hal-01844080v1>

Submitted on 19 Jul 2018

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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



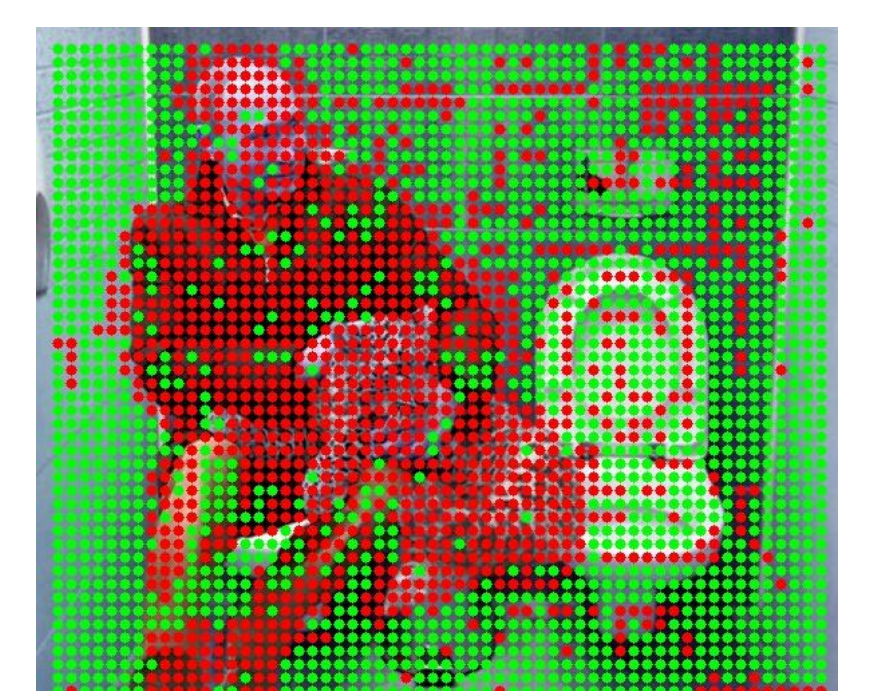
Query



Selected candidate

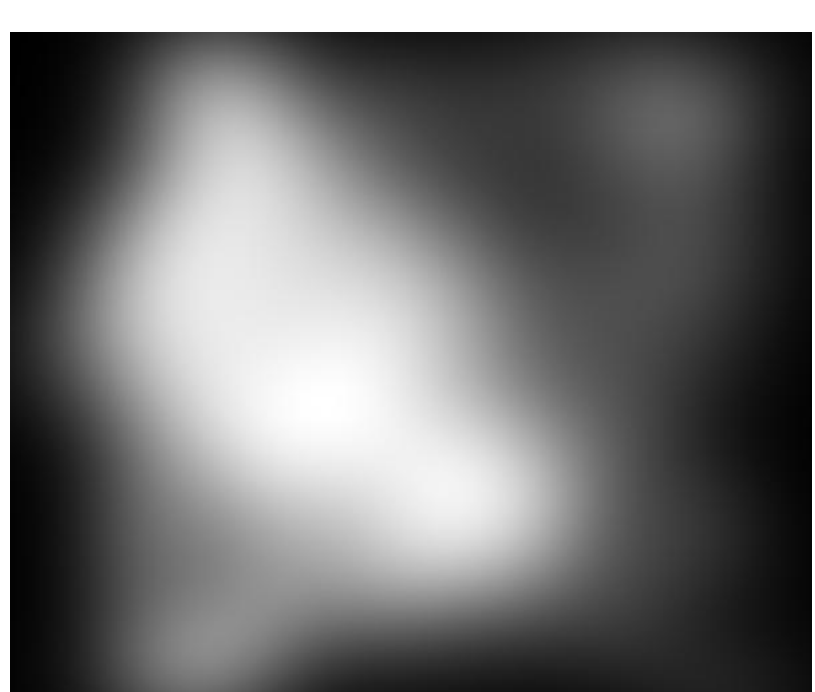


Estimated homography

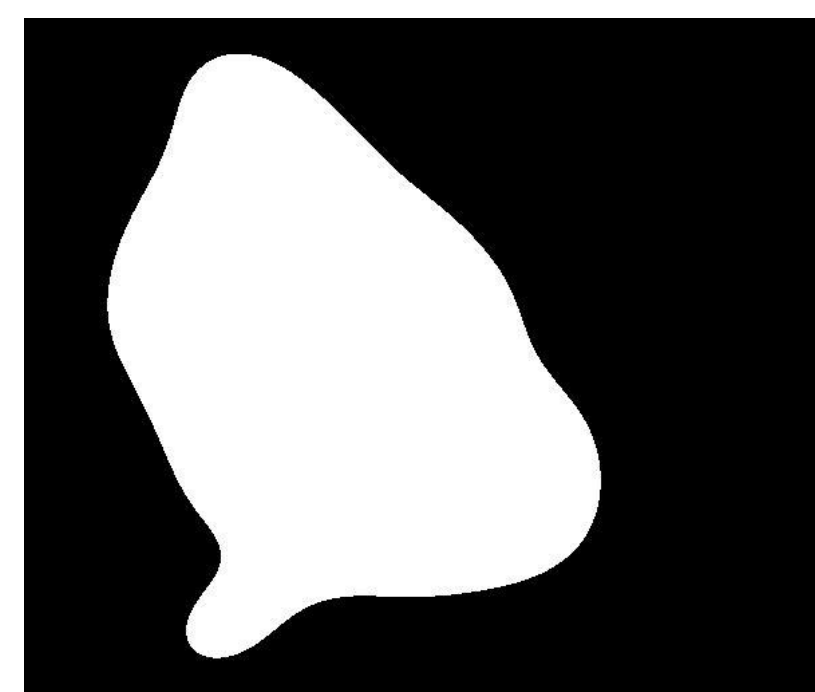


Outliers

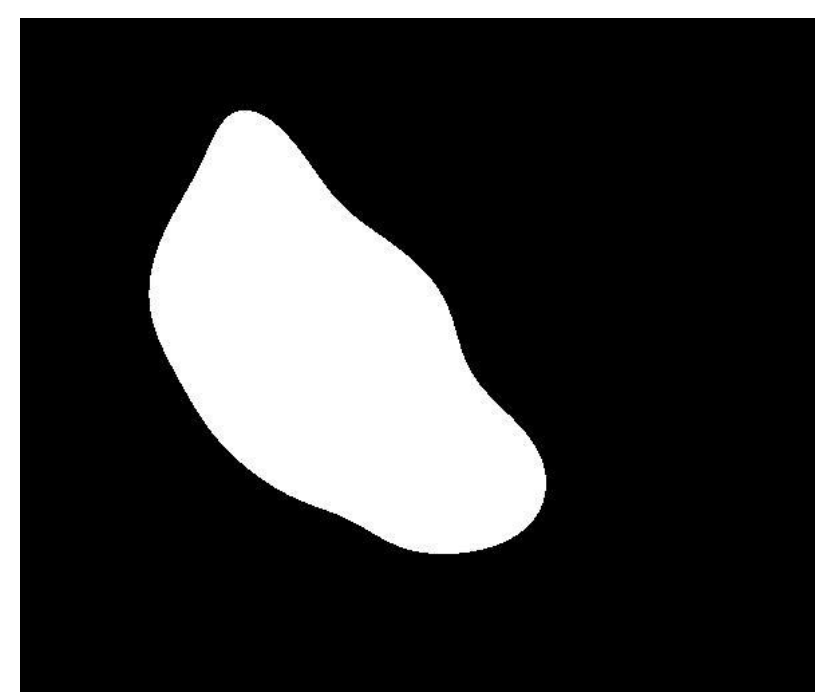
Transforming the outliers into a binary map



Outliers density map (DM), gaussian kernel



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



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



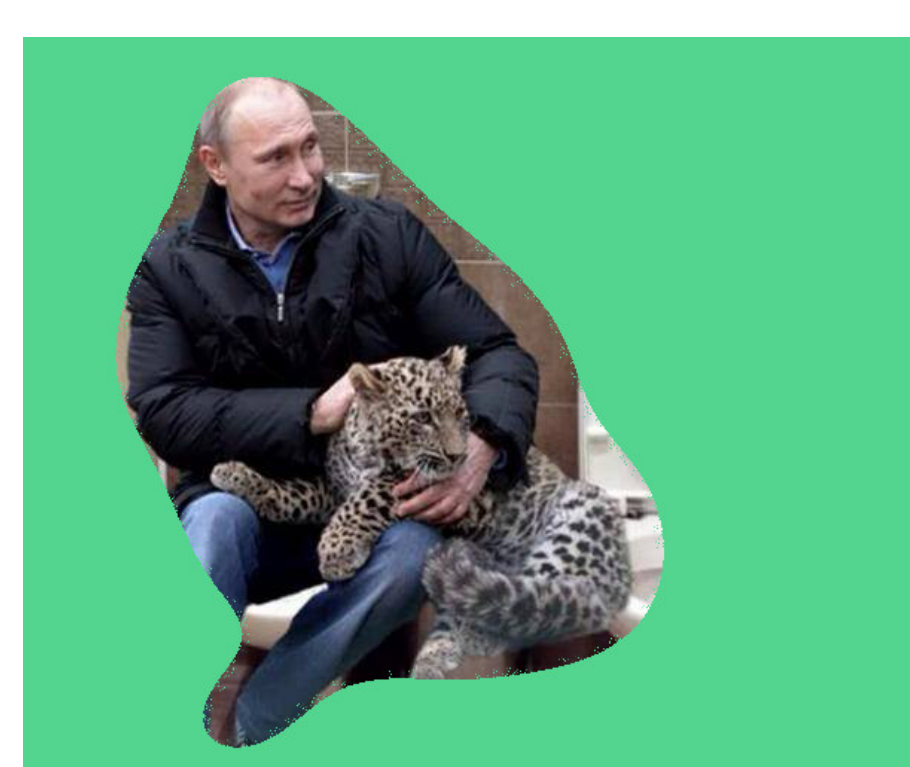
Binarized DM, uniform kernel



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?

