
E2

Table of Contents

Lectura d'imatge i components de colors	1
LUT	3
Components sense ombres (Normalitzat)	5
HSV	6

Óscar Estudillo i Joan Hervás

Lectura d'imatge i components de colors

```
im=imread("flowers.tif");  
figure,imshow(im);  
r=im(:,:,1);  
g=im(:,:,2);  
b=im(:,:,3);  
figure,imshow(g),title("G");  
figure,imshow(b),title("B");  
figure,imshow(r),title("R");
```



G



B



R

LUT

```
mapaR=zeros(256,3);  
mapaR(:,1)=0:255;  
mapaR=mapaR/255;  
% Abans de fer colormap, seleccionar la finestra activa  
colormap(mapaR);  
  
% Passar imatge a escala de grisos  
grey=rgb2gray(im);  
figure,imshow(grey),title("greylevel image");  
  
% Passar imatge a CMY (invers)  
cmy=255-im;  
figure,imshow(cmy(:,:,1)),title("component cyan");
```

R



greylevel image





Components sense ombres (Normalitzat)

```
imNorm=double(im);  
I = double(im(:,:,1)+im(:,:,2)+im(:,:,3));  
imNorm(:,:,1)=double(im(:,:,1))./I;  
imNorm(:,:,2)=double(im(:,:,2))./I;  
imNorm(:,:,3)=double(im(:,:,3))./I;  
figure,imshow(imNorm),title("image normalized");
```



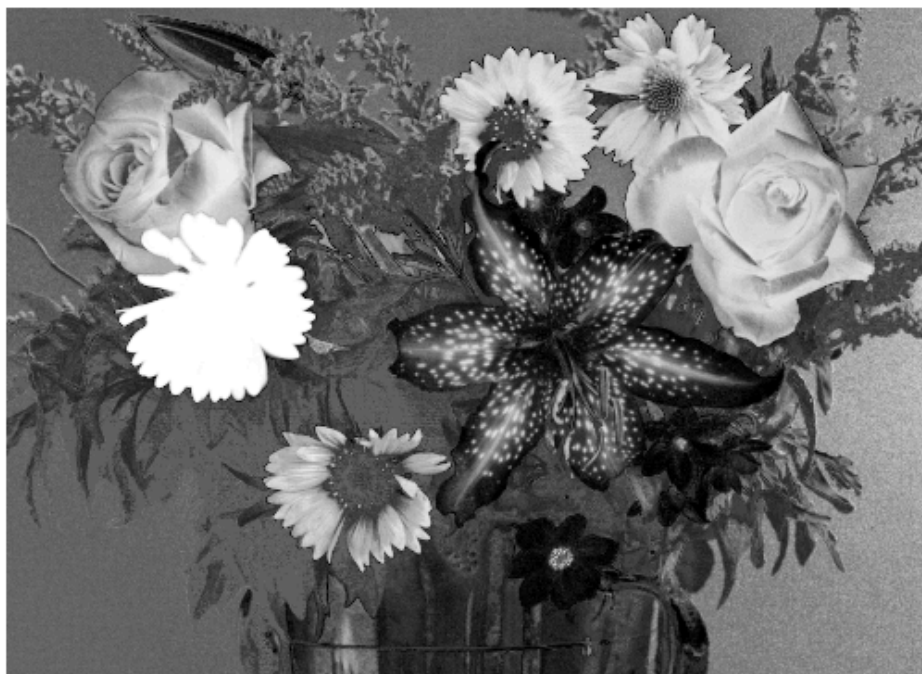

HSV

```
imhsv=rgb2hsv(im);  
h=imhsv(:,:,1);  
s=imhsv(:,:,2);  
v=imhsv(:,:,3);  
figure,imshow(h), title("hue");  
figure,imshow(s), title("saturation");  
figure,imshow(v), title("value");  
  
%HSV normalized  
vNorm = v;  
vNorm(:,:) = 0.7;  
hsvNorm=cat(3,h,s,vNorm);  
hsvNormRgb=hsv2rgb(hsvNorm);  
figure,imshow(hsvNormRgb),title("HSV normalized");
```

hue



saturation



value



HSV normalized



Published with MATLAB® R2022a