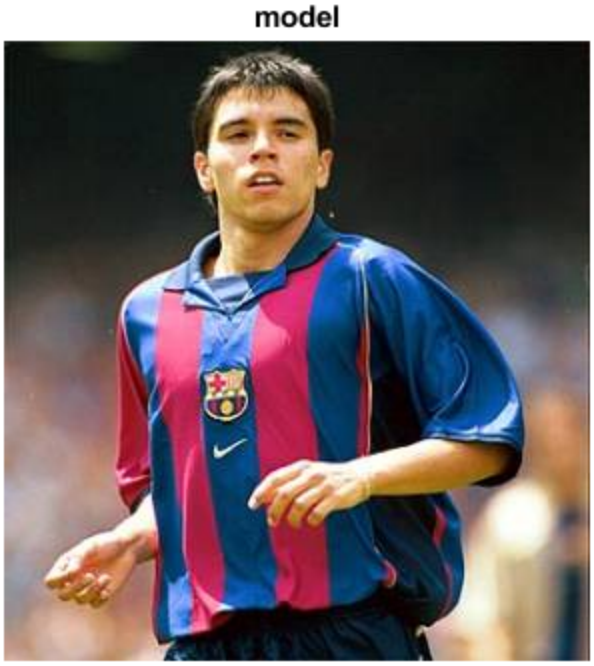
```
im = imread("team1.jpg");
figure, imshow(im), title('model')
im1 = imread("team2.jpg");
im2 = imread("team5.jpg");
im3 = imread("team11.jpg");
im4 = imread("team12.jpg");
figure, imshow(im1), title('model test 1')
figure, imshow(im2), title('model test 2')
figure, imshow(im3), title('model test 3')
figure, imshow(im4), title('model test 4')
```



model test 1

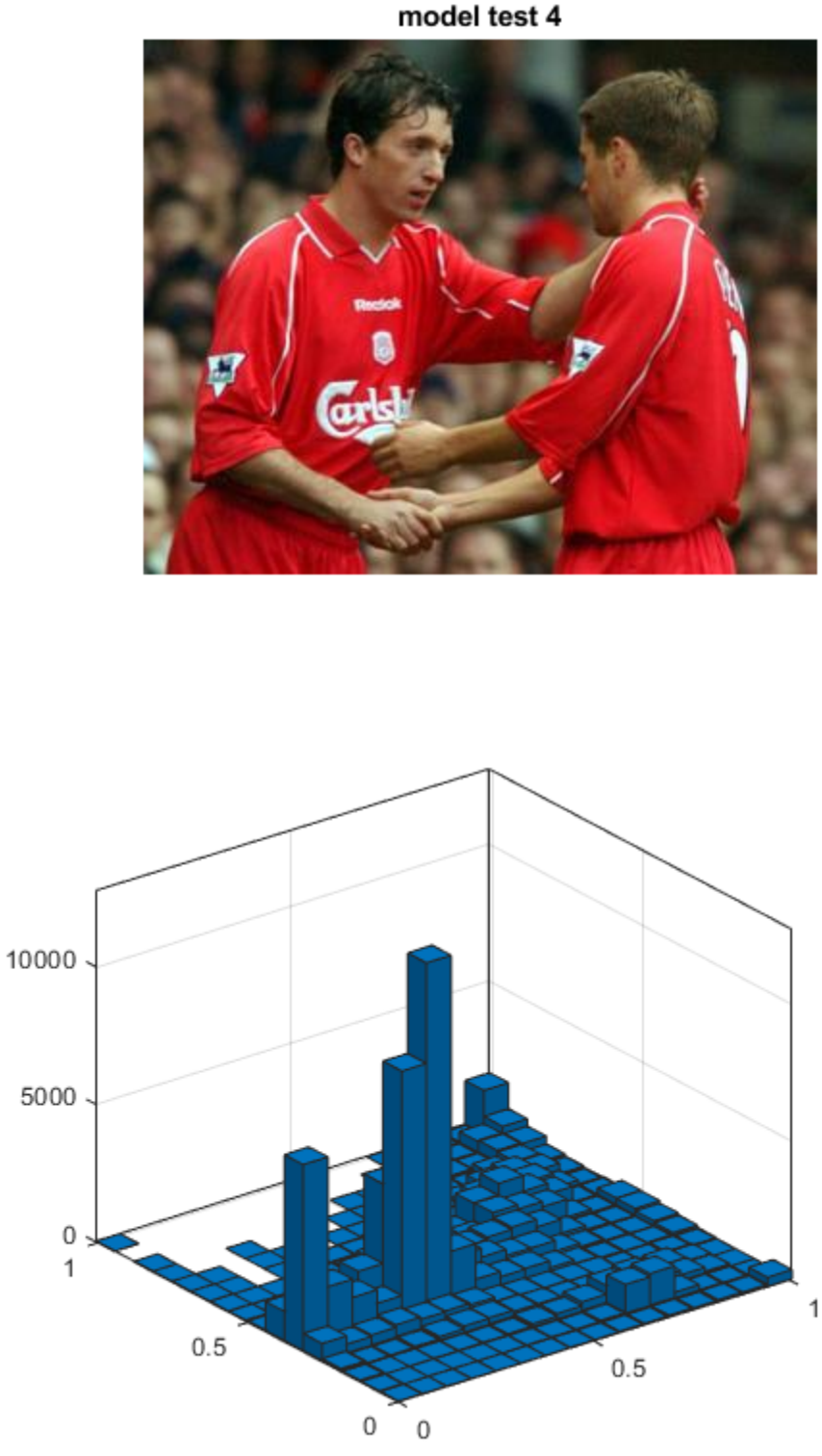
model test 2

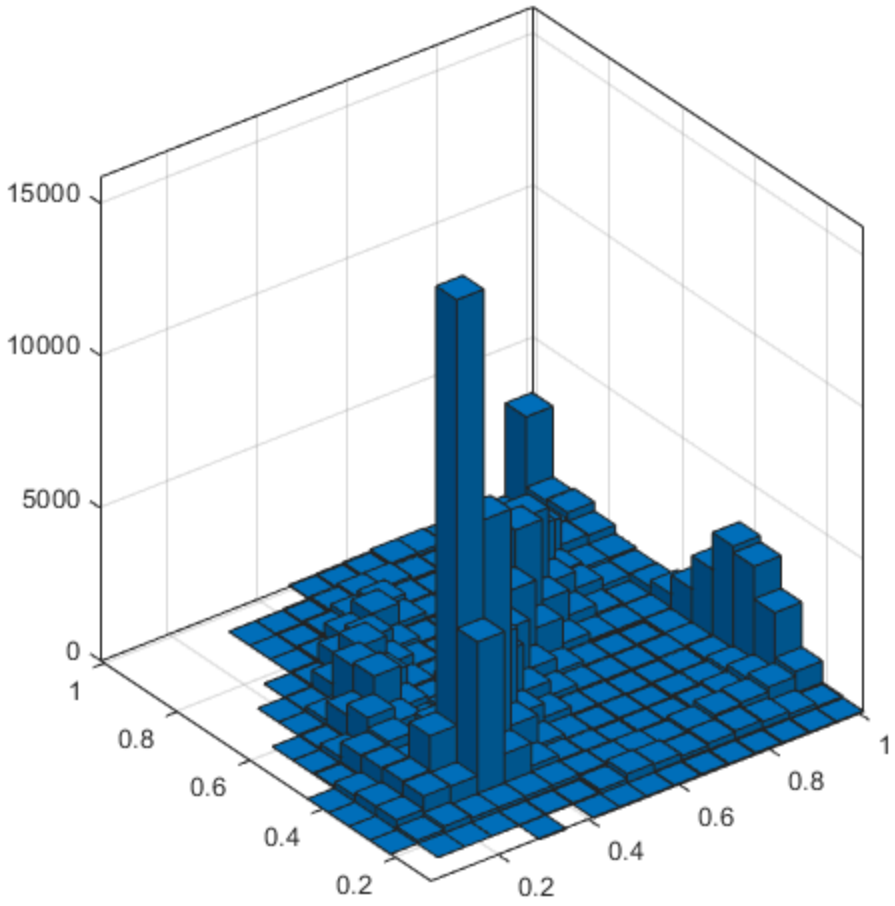
model test 3

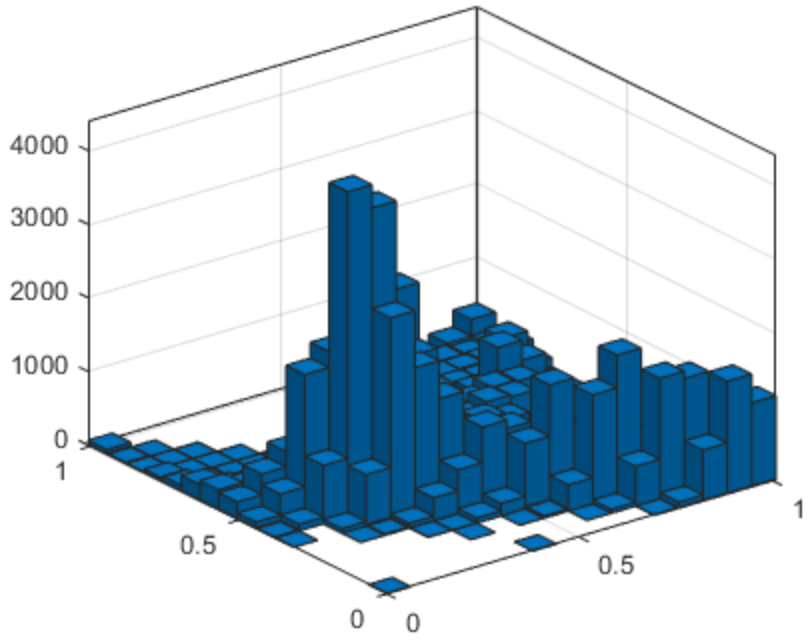
model test 4

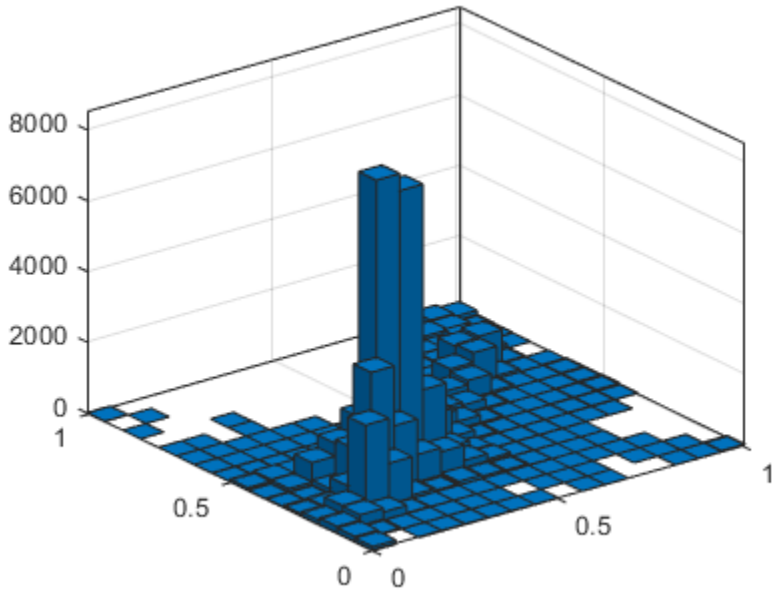
Normalització RGB retorna matriu 16x16 li pasem im a color

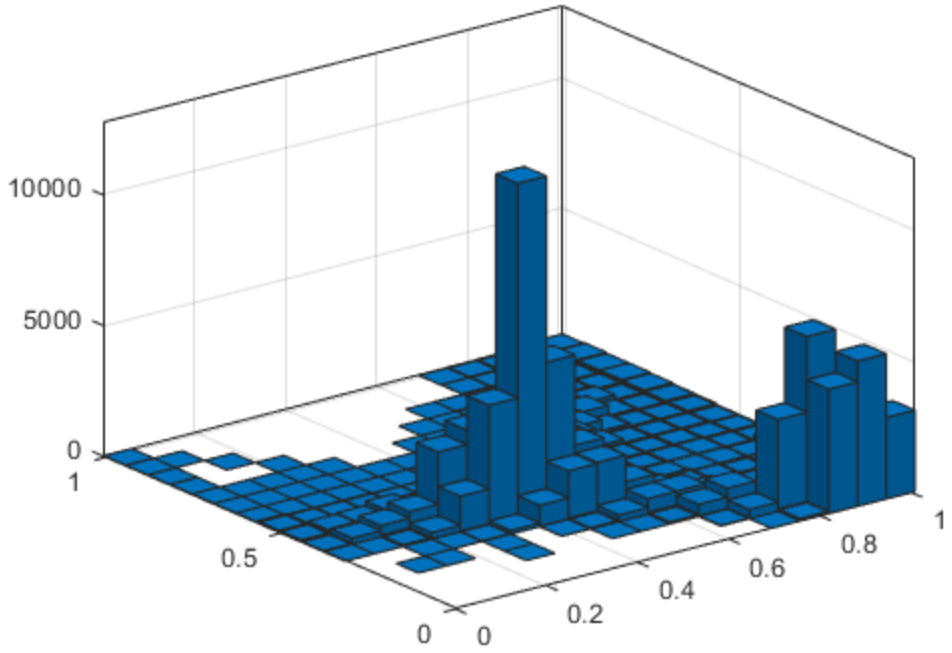
```
h = normalitzar(im);
h1 = normalitzar(im1);
h2 = normalitzar(im2);
h3 = normalitzar(im3);
h4 = normalitzar(im4);

% Com h es 1x1 no pot fer aquest
%sim(1) = sum(min(h, h1), 'all')
%sim(2) = sum(min(h, h2), 'all')
%sim(3) = sum(min(h, h3), 'all')
%sim(4) = sum(min(h, h4), 'all')
%figure, bar(sim), title('similitud')
```


model test 4
10000
5000
0
1
0.5
0
0
0.5
1


15000
10000
5000
0
1
0.8
0.6
0.4
0.2
0.2
0.4
0.6
0.8
1


4000
3000
2000
1000
0
1
0.5
0
0
0.5
1


8000
6000
4000
2000
0
1
0.5
0
0
0.5
1



Suavitzat - Com h es 1x1 no pot fer aquest

```
%h = imgaussfilt(h, 0.5);
%h2 = imgaussfilt(h1, 0.5);
%h3 = imgaussfilt(h2, 0.5);
%h4 = imgaussfilt(h3, 0.5);
%h5 = imgaussfilt(h4, 0.5);

%sim(1) = sum(min(h, h1), 'all')
%sim(2) = sum(min(h, h2), 'all')
%sim(3) = sum(min(h, h3), 'all')
%sim(4) = sum(min(h, h4), 'all')
%figure, bar(sim), title('similitud amb histos suavitzats')
```

Patches

```
patch =  imcrop(im);
patch1 =  imcrop(im1);
patch2 =  imcrop(im2);
patch3 =  imcrop(im3);
patch4 =  imcrop(im4);

h = normalitzar(patch);
h1 = normalitzar(patch1);
h2 = normalitzar(patch2);
h3 = normalitzar(patch3);
h4 = normalitzar(patch4);

%sim(1) = sum(min(h, h1), 'all')
%sim(2) = sum(min(h, h2), 'all')
```

```
%sim(3) = sum(min(h, h3), 'all')
%sim(4) = sum(min(h, h4), 'all')
%figure, bar(sim), title('similitud patches')
```

```
function h = normalitzar(im)
    r=im(:,:,1);
    g=im(:,:,2);
    b=im(:,:,3);
    I = double(r + g + b);
    ri = double(r)./I;
    gi = double(g)./I;
    bi = 1.0 - ri - gi;
    aux = cat(3,ri,gi,bi);
    figure, imshow(aux), title('normalitzat')
    h = histogram2(ri, gi, 16);

end
```

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