Table of Contents

```
clc
close all
clear
```

Input Files

```
ghost= im2double(imread('1.jpg'));
nick = im2double(imread('2.jpg'));
apple = im2double(imread('apple.jpg'));
orange = im2double(imread('orange.jpg'));
man = imread('bullMan.jpg');
% man = rgb2gray(man);
bull = man(:,floor(end/2):end,:);
man = man(:,1:floor(end/2),:);
young = imread('Matt.jpg');
% young = rgb2gray(young);
old = young(:,floor(end/2):end,:);
young = young(:,1:floor(end/2),:);
rup = imread('rupdav.jpg');
% rup = rgb2gray(rup);
dave = rup(:,floor(end/2):end,:);
rup = rup(:,1:floor(end/2),:);

% ghost = rgb2gray(ghost);
% orange = rgb2gray(orange);
% apple = rgb2gray(apple);
% nick = rgb2gray(nick);
```

Inputs

Window Size

```
hs=5;
% Sigma
sigma=1;
% Pyramid Level
```

Show Gaussian Pyramid

```
gpGhost =gaussianPyramid(ghost,9,hs,sigma);
```

```
figure(1);
for i=1:9
    subplot(3,3,i);
    imshow(gpGhost{i});
    title(['Gaussian level: ' num2str(i)])
end
```
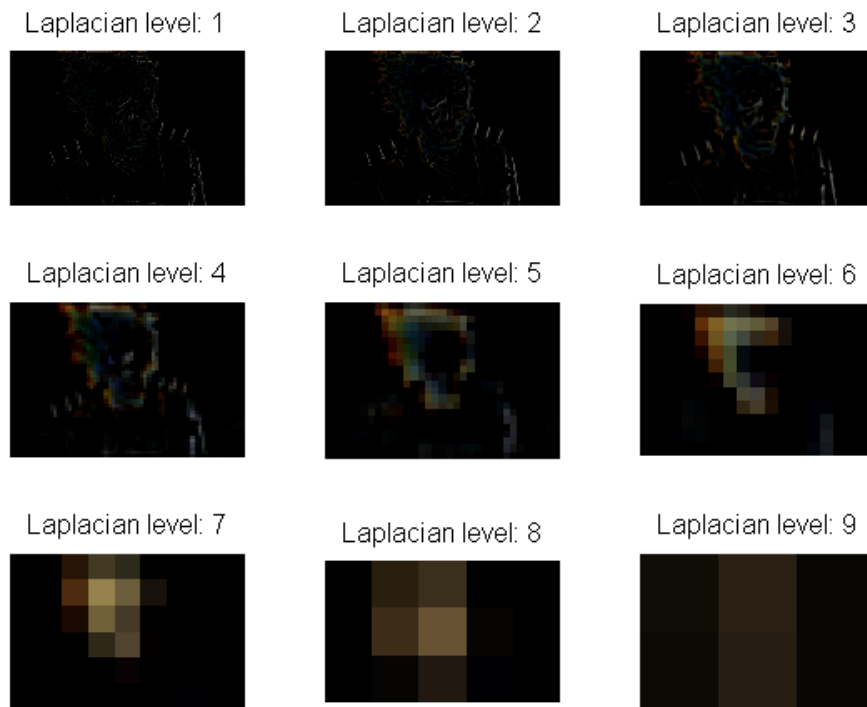
Gaussian level: 1   Gaussian level: 2   Gaussian level: 3

Gaussian level: 4   Gaussian level: 5   Gaussian level: 6

Gaussian level: 7   Gaussian level: 8   Gaussian level: 9

Show Laplacian Pyramid

```
lpGhost = LaplacianPyramid(gpGhost ,hs,sigma);
figure(2);
for i=1:9
    subplot(3,3,i);
    imshow(lpGhost{i});
    title(['Laplacian level: ' num2str(i)])
end
```

Laplacian level: 1   Laplacian level: 2   Laplacian level: 3

Laplacian level: 4   Laplacian level: 5   Laplacian level: 6

Laplacian level: 7   Laplacian level: 8   Laplacian level: 9

Image Composit - Different Levels

```matlab
figure;
lvl = 2:2:8;
for i= 1:4
    subplot(2,2,i);
    q = Comp(orange,apple,sigma,hs,lvl(i));
    imshow(q);
    title(['Level : ' num2str(lvl(i))]);
end
figure;
for i= 1:4
    subplot(2,2,i);
    q = Comp(nick,ghost,sigma,hs,lvl(i));
    imshow(q);
    title(['Level : ' num2str(lvl(i))]);
end
figure;
for i= 1:4
    subplot(2,2,i);
    q = Comp(man,bull,sigma,hs,lvl(i));
    imshow(q);
    title(['Level : ' num2str(lvl(i))]);
end
figure;
```
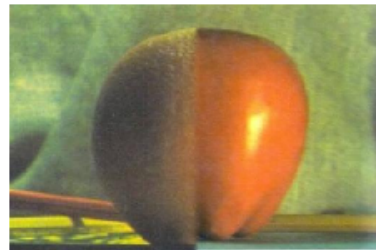
```matlab
for i= 1:4
    subplot(2,2,i);
    q = Comp(rup,dave,sigma,hs,lvl(i));
    imshow(q);
    title(['Level : ' num2str(lvl(i))]);
end
figure;
for i= 1:4
    subplot(2,2,i);
    q = Comp(nick,ghost,sigma,hs,lvl(i));
    imshow(q);
    title(['Level : ' num2str(lvl(i))]);
end
figure;
for i= 1:4
    subplot(2,2,i);
    q = Comp(young,old,sigma,hs,lvl(i));
    imshow(q);
    title(['Level : ' num2str(lvl(i))]);
end
```
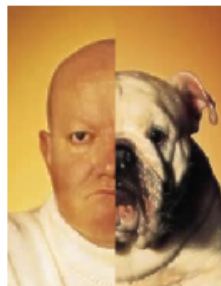

Level : 2

Level : 4

Level : 6
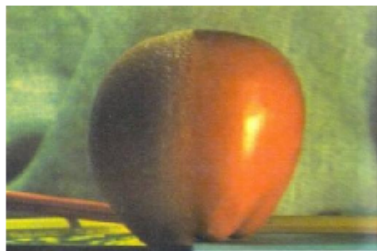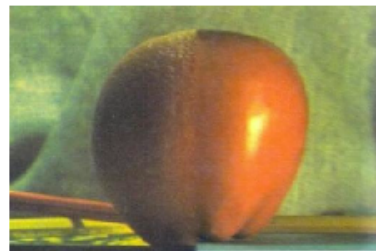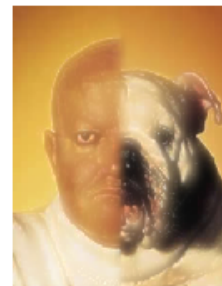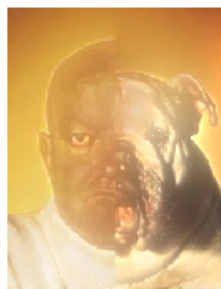
Level : 8

Level : 2

Level : 4

Level : 6

Level : 8

Level : 2

Level : 4
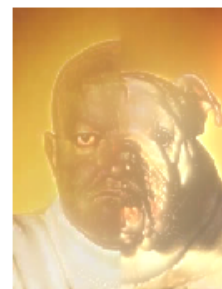
Level : 6

Level : 8
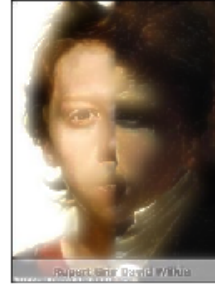
Level : 2
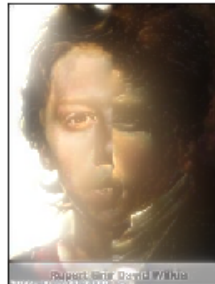
Level : 4
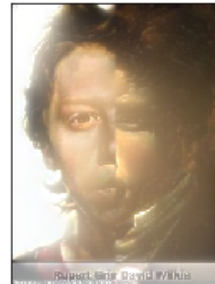
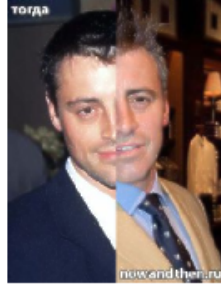Level : 6

Level : 8

Level : 2
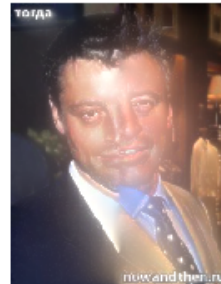
Level : 4

Level : 6

Level : 8

Level : 2 Level : 4

Level : 6 Level : 8

Show Different Mask

```matlab
figure;
lvl=4;
hs = 5:2:11;
for i= 1:4
    subplot(2,2,i);
    q = Comp(orange,apple,sigma,hs(i),lvl);
    imshow(q);
    title(['Window : ' num2str(hs(i))]);
end
figure;
for i= 1:4
    subplot(2,2,i);
    q = Comp(nick,ghost,sigma,hs(i),lvl);
    imshow(q);
    title(['Window : ' num2str(hs(i))]);
end
figure;
for i= 1:4
    subplot(2,2,i);
    q = Comp(man,bull,sigma,hs(i),lvl);
    imshow(q);
    title(['Window : ' num2str(hs(i))]);
end
```

```
figure;
for i= 1:4
    subplot(2,2,i);
    q = Comp(rup,dave,sigma,hs(i),lvl);
    imshow(q);
    title(['Window : ' num2str(hs(i))]);
end
figure;
for i= 1:4
    subplot(2,2,i);
    q = Comp(nick,ghost,sigma,hs(i),lvl);
    imshow(q);
    title(['Window : ' num2str(hs(i))]);
end
figure;
for i= 1:4
    subplot(2,2,i);
    q = Comp(young,old,sigma,hs(i),lvl);
    imshow(q);
    title(['Window : ' num2str(hs(i))]);
end
```
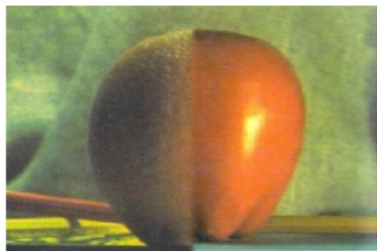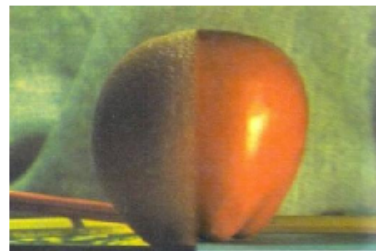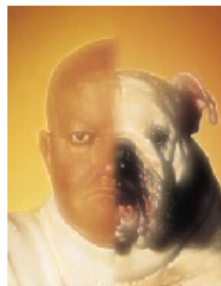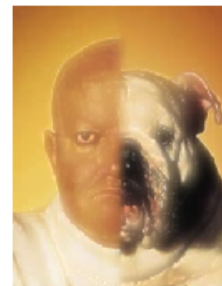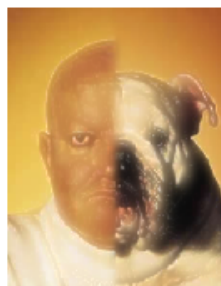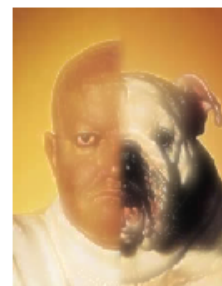
Window : 5
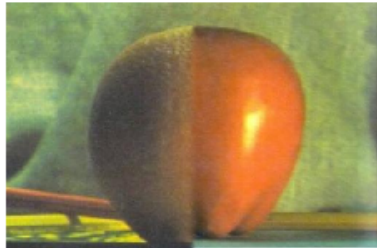
Window : 7

Window : 9
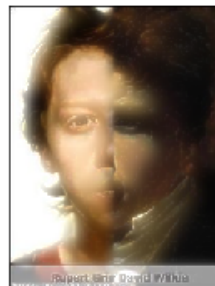
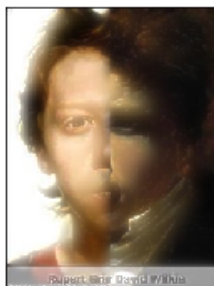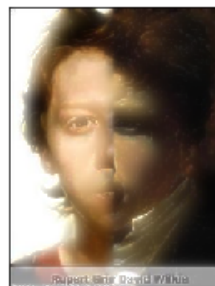Window : 11

Window : 5
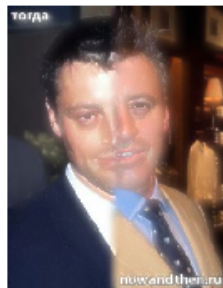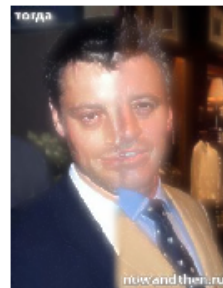
Window : 7

Window : 9

Window : 11

Window : 5

Window : 7

Window : 9

Window : 11

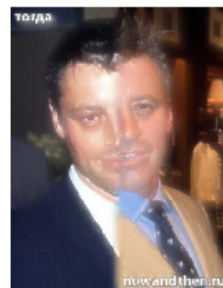

Window : 5

Window : 7

Window : 9

Window : 11

Window : 5

Window : 7

Window : 9

Window : 11

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