

```

[wave,fs]=wavread('C:\Users\Jenny\Desktop\matlab\phonokardiogramm.wav'); %
read file into memory */

sound(wave,fs); % see what it sounds like */
t=0:1/fs:(length(wave)-1)/fs; % and get sampling frequency */

plot(t,wave); % zeigt den Graph grundlegend an*/
figure(1);
    plot(t,wave);
    title('Wave File');
    ylabel('Amplitude');
    xlabel('Length (in seconds)');
    % versieht den Graphen mit Beschriftung und Titel*/

n=length(wave)-1;
f=0:fs/n:fs;
wavefft=abs(fft(wave)); % perform Fourier Transform *

figure(2);
    plot(f,wavefft); % plot Fourier Transform */
    xlabel('Frequency in Hz');
    ylabel('Magnitude');
    title('The Wave FFT');

figure(3);
wave3=wave.^2;
plot(t, wave3);

figure(4);
%DownSampleRatio=20;
%wave4=wave3(1:DownSampleRatio:end);

wave4=downsample(wave3,20);
plot(t,wave4);

```

Line 33

MATLAB R2012b

HOME PLOTS APPS

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FILE VARIABLE CODE SIMULINK ENVIRONMENT RESOURCES

Current Folder C:\Users\Jenny\Desktop

Command Window

```
>> wav_einlesen
Error using plot
Vectors must be the same lengths.

Error in wav_einlesen (line 33)
plot(t,wave4);

fx >>
```


Workspace

Name	Value
f	<1x243980 dou
fs	8000
n	243979
t	<1x243980 dou
wave	<243980x1 dou
wave2	<243980x1 dou
wave3	<243980x1 dou
wave4	<12199x1 doub
wavefft	<243980x1 dou

Command History

```
xlabel('frequency in H...
ylabel('Magnitude');
title('The Wave FFT');
wave2=abs(wave)
figure(3);
plot(t,wave2);
wave2=abs(wave);
wave2=abs(wave);
figure(3);
plot(t,wave2);
wav_einlesen
-- 13.07.2013 15:11 --
wav_einlesen
-- 22.07.2013 23:29 --
-- 23.07.2013 12:24 --
wav_einlesen
```

Details



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