HW #X: Emily Stephen

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Problem 1

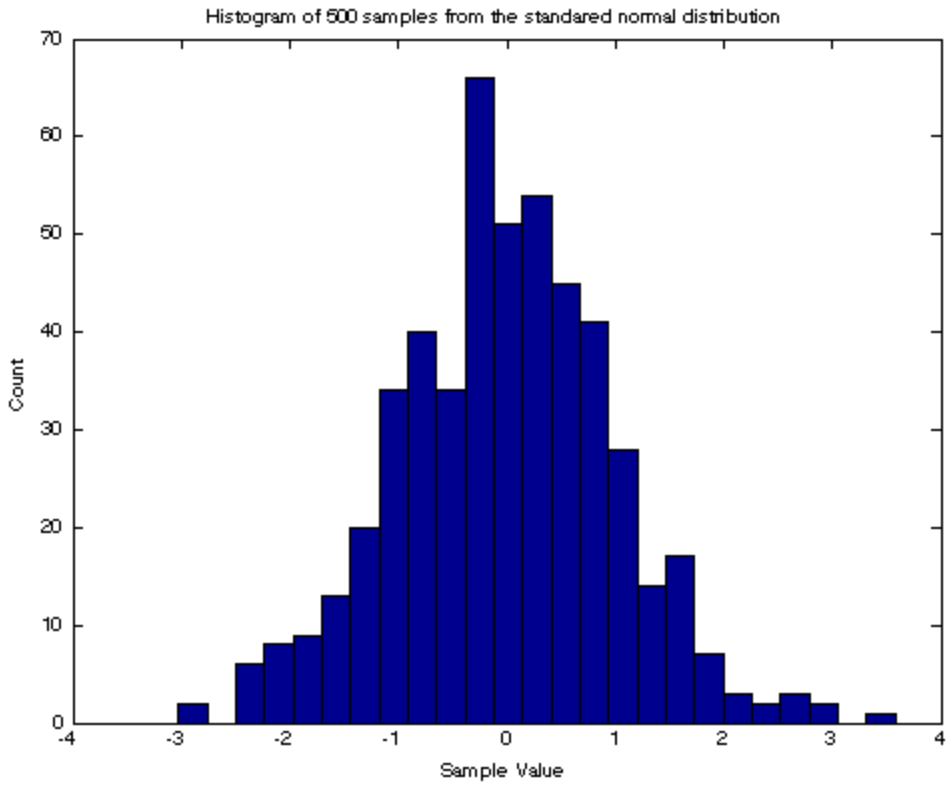
```
% Print 'x: hello world!' for x=1,...,10
for i=1:10,
    display([num2str(i) ': hello world!'])
end
```

```
1: hello world!
2: hello world!
3: hello world!
4: hello world!
5: hello world!
6: hello world!
7: hello world!
8: hello world!
9: hello world!
10: hello world!
```

Problem 2

```
% (a) sample 500 numbers from the standard normal distribution
x = randn(1,500);

% (b) plot a histogram of the results with 25 bins
hist(x,25)
xlabel('Sample Value')
ylabel('Count')
title('Histogram of 500 samples from the standared normal distribution')
```

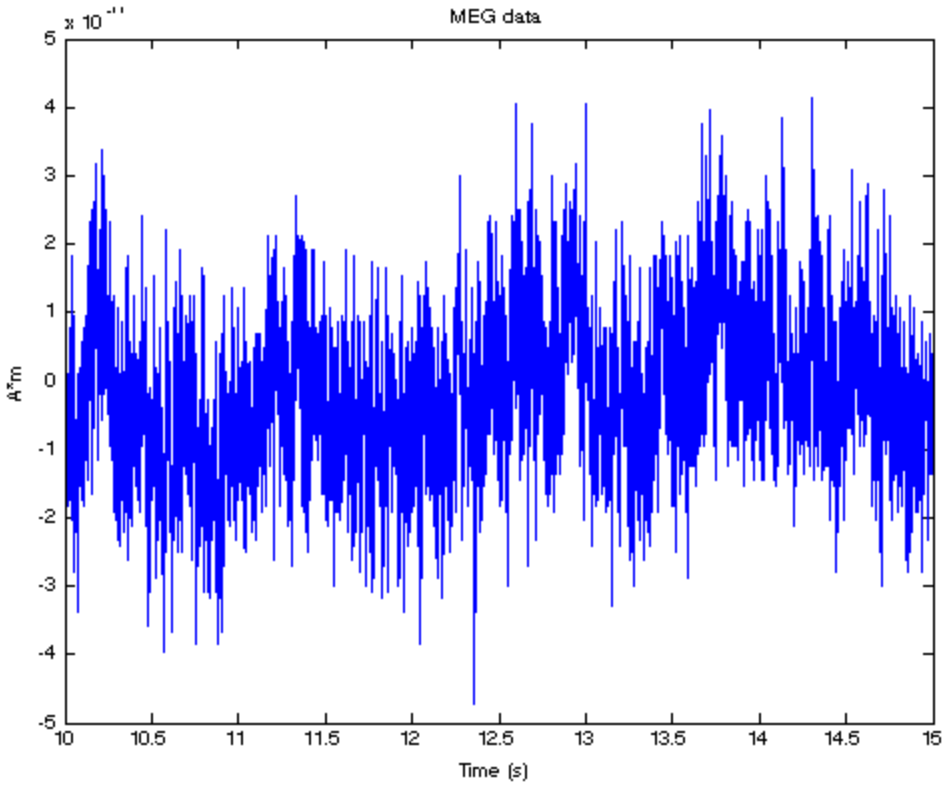


Problem 3

```
% (a) Load the MEG data
load('meg_data.mat'); % contains the variable back_average

% (b) Create an array for the time axis, assuming that the sampling rate is
% 1000 samples per second.
Fs = 1000; % sampling rate
t = (1:length(back_average))/Fs; % Create the time axis

% (c) Plot the results
figure, plot(t,back_average)
title('MEG data')
xlabel('Time (s)'), ylabel('A*m')
xlim([10,15])
```



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