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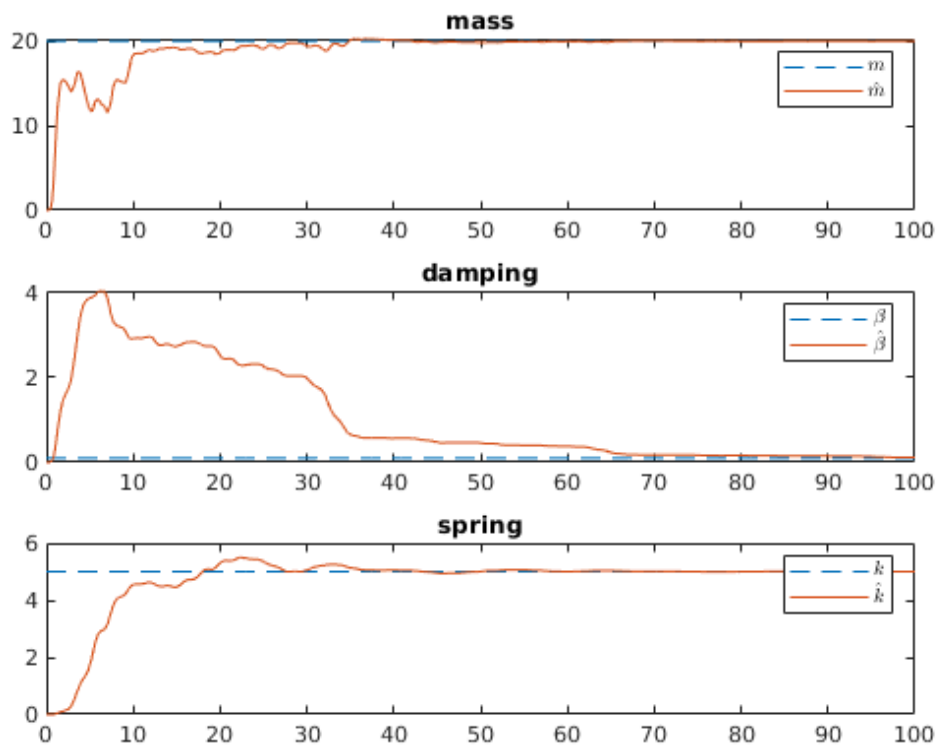
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## Run

```
parameters;  
taskE = 0;  
sim('problem4_9.slx', 100);
```

## Plot

```
t = results.Time;  
m = model.Data(:,1);  
beta = model.Data(:,2);  
k = model.Data(:,3);  
m_pred = results.Data(:,1);  
beta_pred = results.Data(:,2);  
k_pred = results.Data(:,3);  
  
figure(1); clf(1);  
subplot(3,1,1);  
plot(t, m, '--');  
hold on;  
plot(t, m_pred);  
legend('$m$', '$\hat{m}$', 'interpreter', 'latex');  
title('mass');  
  
subplot(3,1,2);  
plot(t, beta, '--');  
hold on;  
plot(t, beta_pred);  
legend('$\beta$', '$\hat{\beta}$', 'interpreter', 'latex');  
title('damping');  
  
subplot(3,1,3);  
plot(t, k, '--');  
hold on;  
plot(t, k_pred);  
legend('$k$', '$\hat{k}$', 'interpreter', 'latex');  
title('spring');
```



## Run

```
parameters;
taskE = 1;
sim('problem4_9.slx', 500);
```

## Plot

```
t = results.Time;
m = model.Data(:,1);
beta = model.Data(:,2);
k = model.Data(:,3);
m_pred = results.Data(:,1);
beta_pred = results.Data(:,2);
k_pred = results.Data(:,3);

figure(1); clf(1);
subplot(3,1,1);
plot(t, m, '--');
hold on;
plot(t, m_pred);
legend('$m$', '$\hat{m}$', 'interpreter', 'latex');
title('mass');

subplot(3,1,2);
```

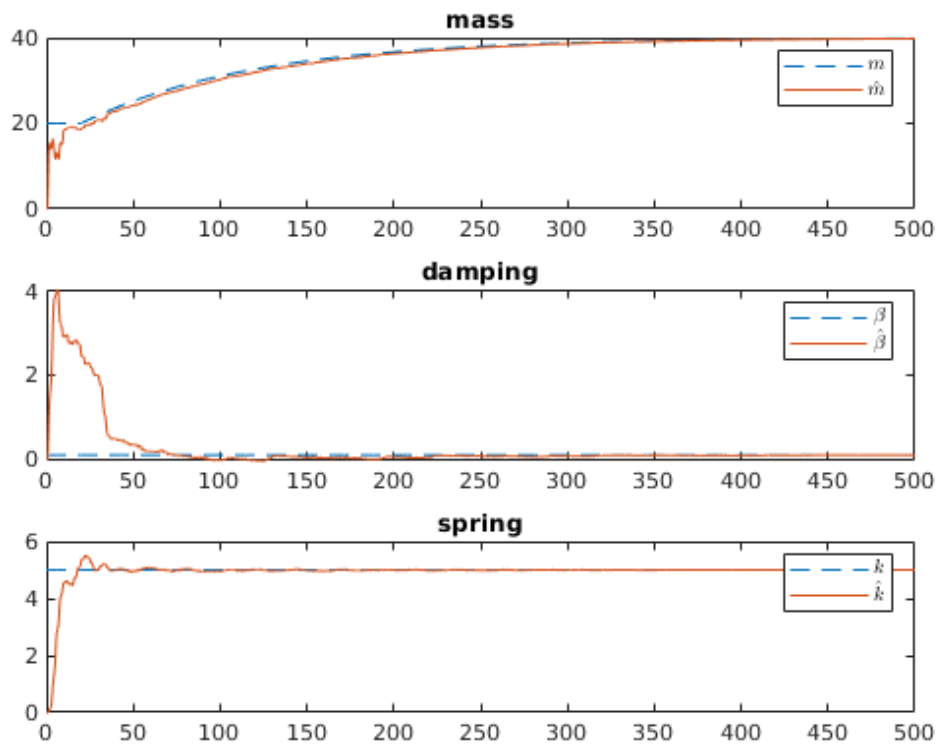
---

```

plot(t, beta, '--');
hold on;
plot(t, beta_pred);
legend('$\beta$', '$\hat{\beta}$', 'interpreter', 'latex');
title('damping');

subplot(3,1,3);
plot(t, k, '--');
hold on;
plot(t, k_pred);
legend('$k$', '$\hat{k}$', 'interpreter', 'latex');
title('spring');

```



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