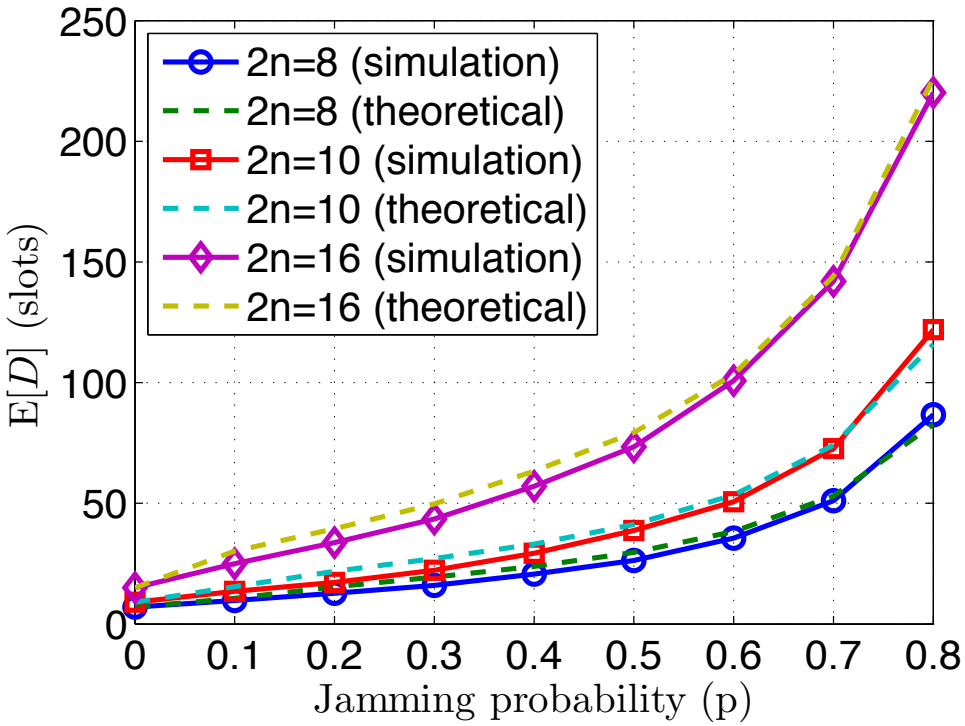
Generating Graphs – Tips

Plotting tips

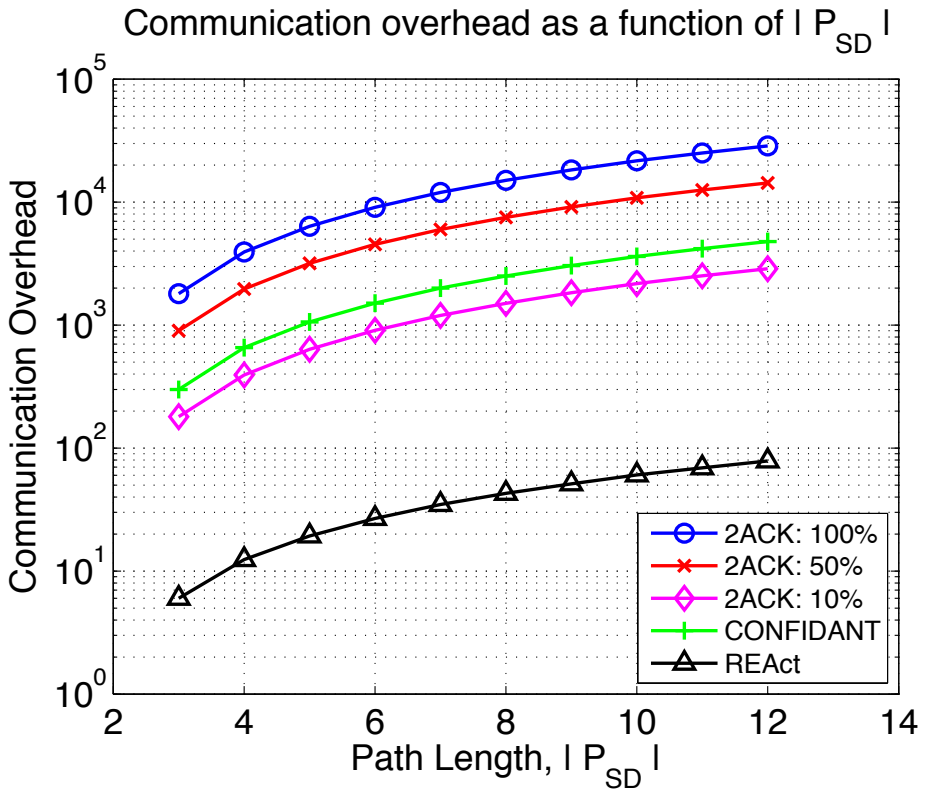
1. Label your axes and use appropriate units.
2. Make sure the scales on both axes are appropriate. If you are to use the same variable on multiple plots (e.g. throughput) use the same scale on all plots so they can be compared.
3. Do not superimpose more than 4-5 plot lines on the same plot; it becomes too clumped and unreadable.
4. If more than one plot lines are present in the same plot make sure to individually label each one.
5. For individual plot lines use different marker shapes so they can be distinguishable.
6. Keep in mind that colors do not show on a black and white printout. So if you color code your lines, use some other discernable labeling such as dashed lines to differentiate between plot lines.

Sample graphs (irrelevant to the project)

- Linear scale



- Logarithmic Y scale (used when your Y values vary by several orders of magnitude)



F. Matlab code for generating graphs

```
close all; % closes all open figure windows

set(0,'defaulttextinterpreter','latex'); % allows you to use latex math
set(0,'defaultlinelinewidth',2); % line width is set to 2
set(0,'DefaultLineMarkerSize',10); % marker size is set to 10
set(0,'DefaultTextFontSize', 16); % Font size is set to 16
set(0,'DefaultAxesFontSize',16); % font size for the axes is set to 16

figure(1)
plot(X, Y1, '-bo', X, Y2, '--rs', X, Y3, '-.k^'); % plotting three curves Y1, Y2, Y3 for the
same X
grid on; % grid lines on the plot
legend('$p=0.2$', '$p=0.25$','$p=0.5,$);
ylabel('$T$ (Kbps)');
xlabel('$\lambda$' (p/sec));
title('Hidden Terminal Scenario');
```