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pow = 5;
points = pow+1;
m = 1000;
n = logspace(0,pow,points);
T = zeros(4,points);
for k=1:points
    X=rand(m,n(k));
runs=10;
for i=1:runs
    tic
    stderr1(X);
    elapsed(i) = toc;
end
T(1,k) = mean(elapsed);
fprintf('stderr1 on %dx%d array: %f s\n',m,n(k),mean(elapsed));

for i=1:runs
    tic
    stderr2(X);
    elapsed(i) = toc;
end
T(2,k) = mean(elapsed);
fprintf('stderr1 on %dx%d array: %f s\n',m,n(k),mean(elapsed));

for i=1:runs
    tic
    stderr3(X);
    elapsed(i) = toc;
end
T(3,k) = mean(elapsed);
fprintf('stderr1 on %dx%d array: %f s\n',m,n(k),mean(elapsed));

for i=1:runs
    tic
    std(X);
    elapsed(i) = toc;
end
T(4 ,k) = mean(elapsed);
fprintf('stderr1 on %dx%d array: %f s\n',m,n(k),mean(elapsed));
end
loglog(n,T)
title('Runtime Comparison for Standard Error Algorithms')
legend ('Variable Array Loops', 'JITC', 'Vectorized', 'MATLAB')
xlabel('Number of Size 1000x1 Input Columns')
ylabel('runtime')

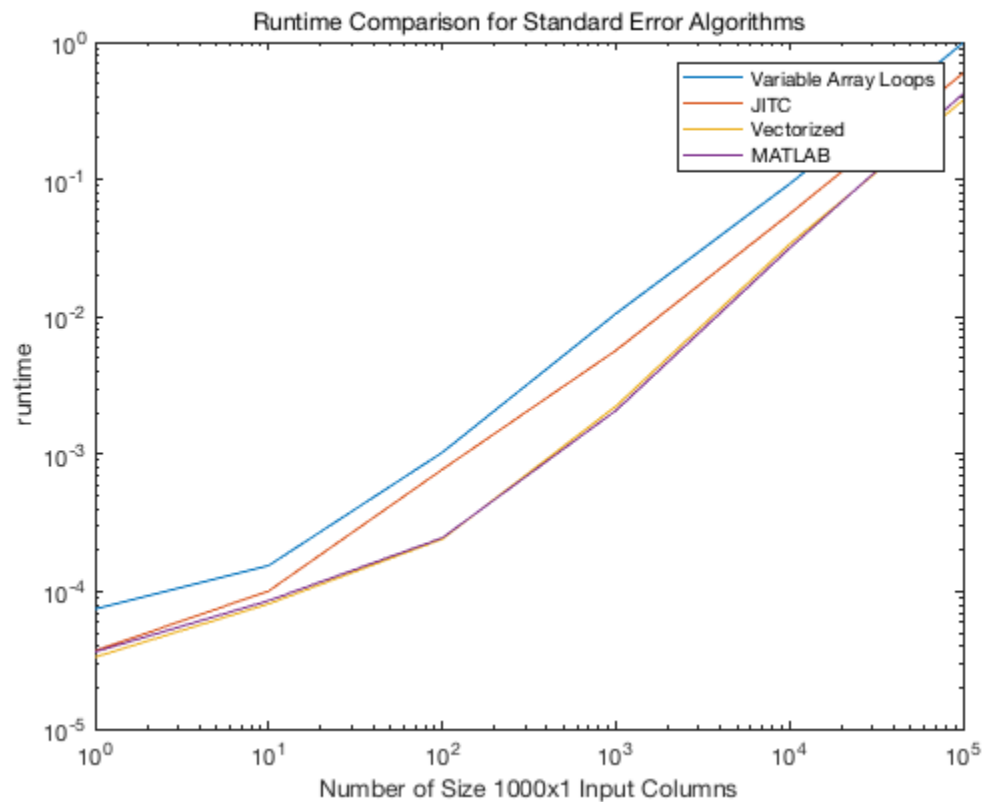
stderr1 on 1000x1 array: 0.000075 s
stderr1 on 1000x1 array: 0.000037 s
stderr1 on 1000x1 array: 0.000033 s
stderr1 on 1000x1 array: 0.000036 s
stderr1 on 1000x10 array: 0.000154 s
stderr1 on 1000x10 array: 0.000101 s

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stderr1 on 1000x10 array: 0.000081 s
stderr1 on 1000x10 array: 0.000086 s
stderr1 on 1000x100 array: 0.001028 s
stderr1 on 1000x100 array: 0.000773 s
stderr1 on 1000x100 array: 0.000241 s
stderr1 on 1000x100 array: 0.000245 s
stderr1 on 1000x1000 array: 0.010520 s
stderr1 on 1000x1000 array: 0.005682 s
stderr1 on 1000x1000 array: 0.002229 s
stderr1 on 1000x1000 array: 0.002072 s
stderr1 on 1000x10000 array: 0.092395 s
stderr1 on 1000x10000 array: 0.055875 s
stderr1 on 1000x10000 array: 0.033671 s
stderr1 on 1000x10000 array: 0.031466 s
stderr1 on 1000x100000 array: 0.982506 s
stderr1 on 1000x100000 array: 0.592462 s
stderr1 on 1000x100000 array: 0.376459 s
stderr1 on 1000x100000 array: 0.419995 s

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