

```

clear;
addpath('simulator');
p(1).topology = [6 2 1];
evaluationFunction = 'twoPoleEvaluation';
p(1).permutationOption = 1;
p(1).elitismOption = 1;
p(1).targetFitness = 1000;
p(1).maximumGenerations = 200;

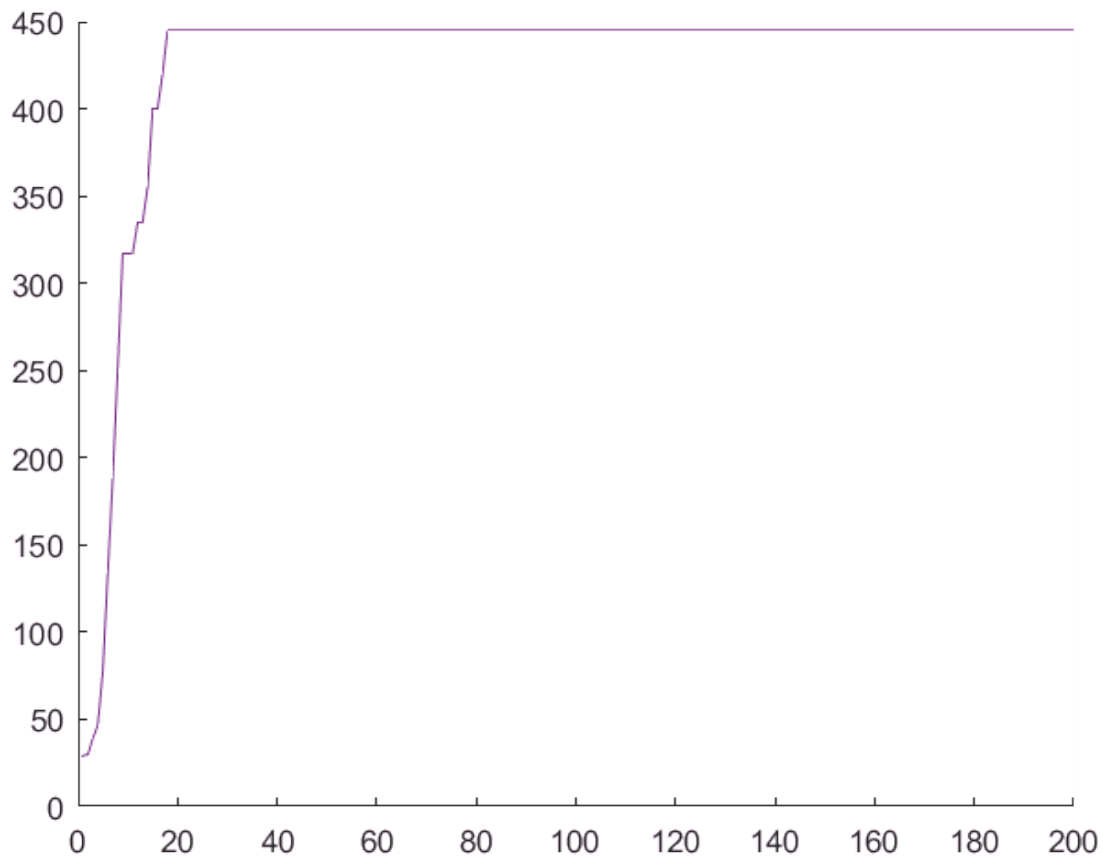
p(2) = p(1);
p(2).permutationOption = 1;
p(2).elitismOption = 2;

p(3) = p(1);
p(3).permutationOption = 1;
p(3).elitismOption = 3;

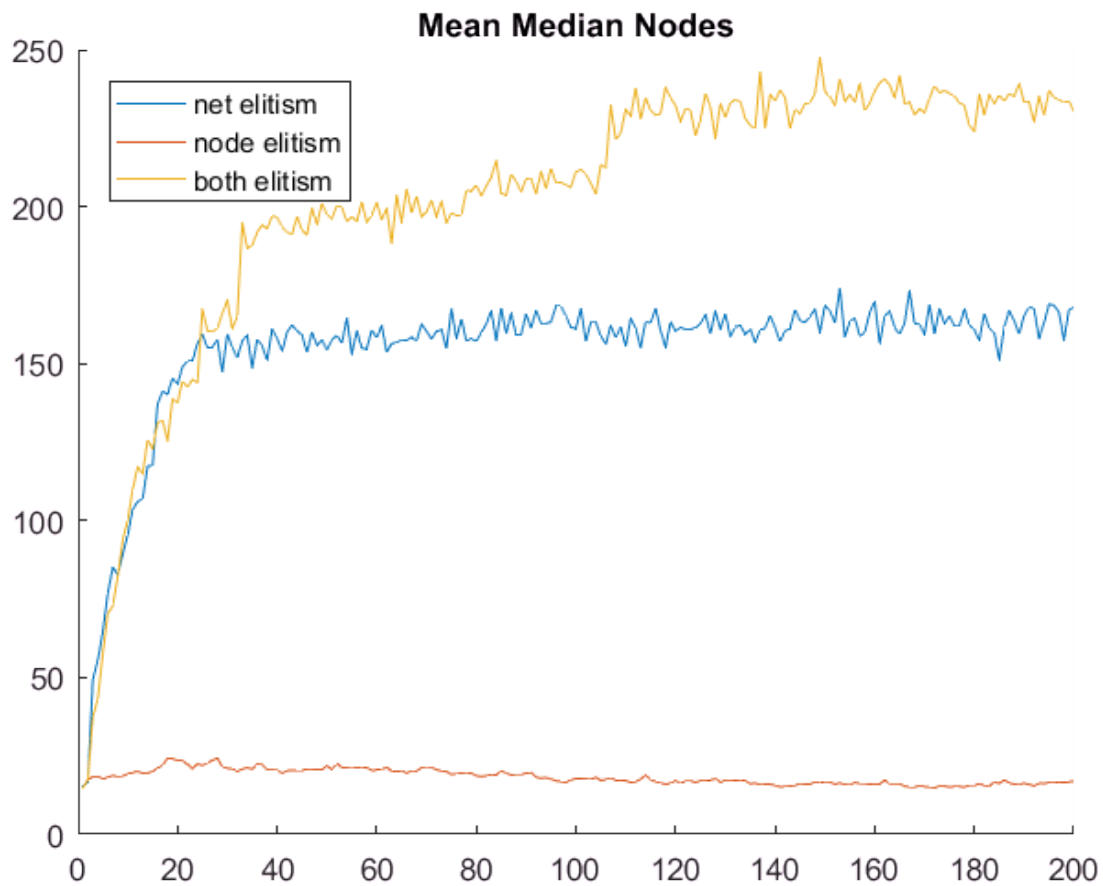
nRuns = 30;

for experiment=1:3
    clearvars medianNodes bestNet medianNet r;
    medianNodes = ones(nRuns,p(experiment).maximumGenerations) * p(experiment).targetFitness;
    bestNet = ones(nRuns,p(experiment).maximumGenerations) * p(experiment).targetFitness;
    medianNet = ones(nRuns,p(experiment).maximumGenerations) * p(experiment).targetFitness;
    for run=1:nRuns
        r(run) = doEsp(evaluationFunction, p(experiment));
        medianNodes(run,1:size(r(run).medianNodeFitness,2)) = mean(r(run).medianNodeFitness,1);
        bestNet(run,1:size(r(run).bestNetFitness,2)) = r(run).bestNetFitness;
        medianNet(run,1:size(r(run).medianNetFitness,2)) = r(run).medianNetFitness;
    end
    meanMedianNodes(experiment,:) = mean(medianNodes,1);
    meanBestNet(experiment,:) = mean(bestNet,1);
    meanMedianNet(experiment,:) = mean(medianNet,1);
end

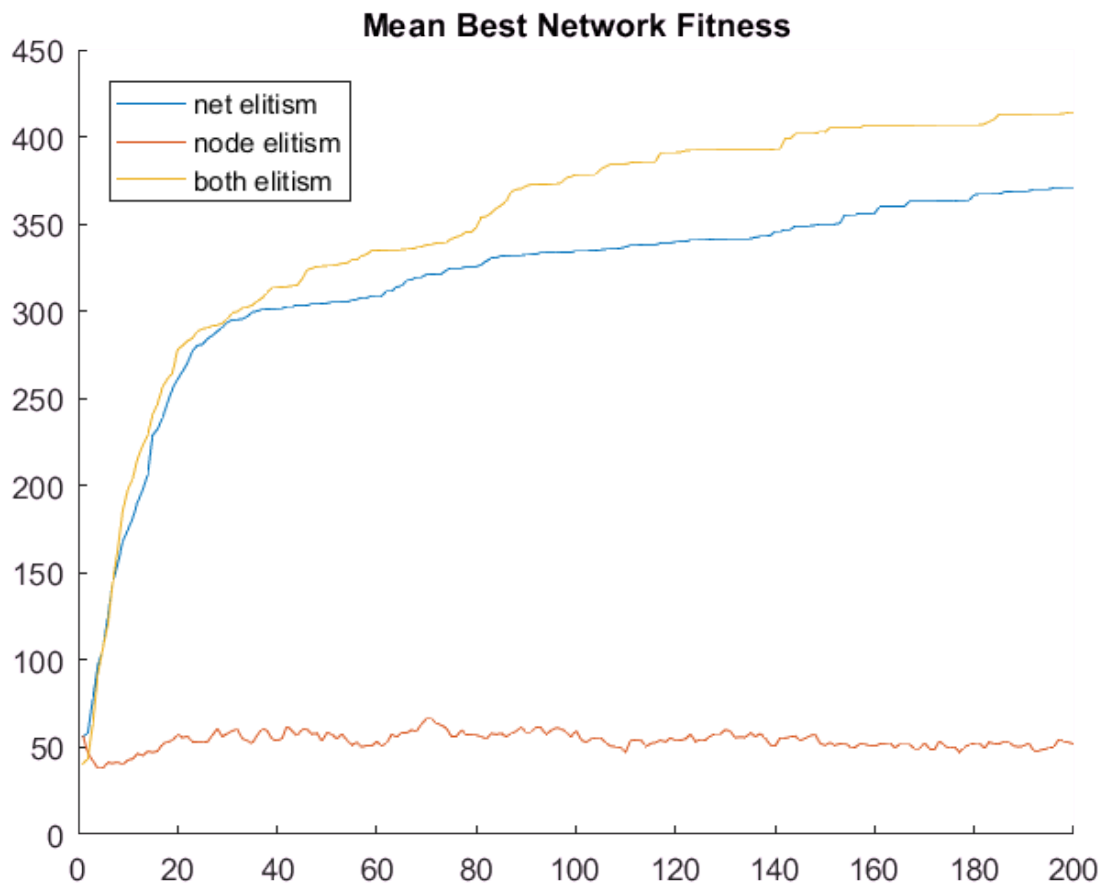
```



```
figure(1); clf; hold on;  
for i=1:3  
    plot(meanMedianNodes(i,:));  
end  
legend('net elitism','node elitism',...  
       'both elitism',...  
       'Location','northwest');  
title('Mean Median Nodes');
```



```
figure(2); clf; hold on;
for i=1:3
    plot(meanBestNet(i,:));
end
legend('net elitism','node elitism',...
    'both elitism',...
    'Location','northwest');
title('Mean Best Network Fitness');
```



```
figure(3); clf; hold on;  
for i=1:3  
    plot(meanMedianNet(i,:));  
end  
legend('net elitism','node elitism',...  
       'both elitism',...  
       'Location','northwest');  
title('Mean Median Network Fitness');
```

