
Genetic Algorithms and Evolutionary Games in Matlab

Lab 10

- (1) Download **all** files for the lab into the same folder from <http://laits.utexas.edu/compeco/Courses/index363.html>
- (2) Files include: gagame.m, crossover.m, fitness_gagame.m, initpoprand_gagame.m, mutation.m, and parentsdet.m
- (3) Either open the file “gagame.m” with Matlab or open from within Matlab. Make sure to either use the command “addpath C:\path\to\file” or press the green “play” button in the function/script editor and “add to path”.
- (4) Have fun! There are a number of ways to extend this lab. One path of extension would be to change the type of game (instead of prisoner's dilemma, the game could be changed to stag hunt or battle of the sexes. See http://en.wikipedia.org/wiki/List_of_games_in_game_theory for some potential examples).
- (5) Make sure to save your work after you finish.
- (6) Some sidenotes:

The script file for the evolutionary game problems is gagame.m The functions required by the evolutionary game script file are crossover.m, fitness_gagame.m, initpoprand_gagame.m, mutation.m, and parentsdet.m.

Crossover.m, mutation.m, and parentsdet.m are functions required for both the evolutionary game problem as well as the portfolio problem solve through genetic algorithms. For the portfolio problem, the scripts you want to investigate are gaportfol1.m gaportfol2.m, gaportfol3.m, gaportfol4.m, gaportfol5.m.
