



Discrete von Neumann game with fictitious play

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All Sections

Here is a summary of the first part of the four part project.

Game 1:

Each player antes an amount a , forming a pot $p=2a$.

Each player receives an independently chosen, uniformly distributed random integer between 1 and N .

Player 1 checks or bets b .

If player 1 checks, there is a showdown for p .

If player 1 bets, player 2 may fold or call.

If player 2 calls there is a showdown for $p+2b$.

Method 1:

In fictitious play, each player chooses the best pure strategy response to the average play of their opponent over previous iterations of the game.

The basic assignment is to upload two graphs: the betting fraction for each card i as a function of i , and the calling fraction for each card i as a function of i .

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