Summary

- Part 1: Introduction to Game Theory.
- Part 2: The Fictitious Play algorithm. The Stability Principle.
- Part 3: Alternating Fictitious Play.
- Part 4: Convergence rates.

Game Theory 1: definitions

- Informal description - More formally: (tuples) - Actions, Mixed Strategies - Alternatively: bimatrix games - payoffs as matrix products

Game Theory 2: examples

- Rock, Paper, Sicssors. - Prisonner's Dilemma.

Game Theory 3: moar definitions

- Best Response Set - Nash Equilibrium - back to examples

Fictitious Play 1: example

- Bart vs Lisa (explain Lisa) - Lisa vs Lisa

Fictitious Play 2: definition

- Berger Definition, SFP - Prisonner's Dilemma - Stability Principle

Fictitious Play 3: proof of stability principle

- Lemma 1 - Lemma 2 - Theorem 1

Alternating Fictitious Play

- Berger definition -

Rate of convergence

- Theorem 4

Code!

- Implementation - Prissoner's Dilemma - Rock Paper Sicssors - Theorem 4