

CO 480 Project Proposal – Spring 2015

Group Membership

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Project Summary

Person John Forbes Nash Jr.
Place Princeton University
Problem Non-cooperative Games
Hook This is the story of a man who achieved equilibrium between players who were not cooperative in games.

Project Outline

1. Introduction to Strategic Games
2. Best Response Functions
3. Pure Equilibria & Cournot Oligopoly
4. Mixed Equilibria
5. Existence of Mixed (Nash) Equilibria
 - (a) Sperner's Lemma
 - (b) Brouwer's Fixed Point Theory
 - (c) Nash's Existence Proof
6. Practical Applications
7. Lemke-Howson Method for Finding Equilibria

Source Material

1. A Beautiful Mind: The Life of Mathematical Genius and Nobel Laureate John Nash (<http://www.barnesandnoble.com/?e=9780743224574>)