

How to Bid for a Pizza: A Simple Stochastic Game
Bill Sudderth, University of Minnesota

Nonzero sum games and the notion of equilibrium due to John Nash will be introduced. These will be illustrated by a game in which two (or more) players hold cash and bid each day for a nondurable good - say pizza. The good is consumed and the money recirculates to the players according to a stochastic rule that treats them symmetrically. Another pizza arrives the next day and play continues.

Simple Nash equilibria exist for this pizza game, whether they exist for more general stochastic games is unknown.