Undergraduate Math Club
Fall 2007
2nd floor Nesbitt Common Room
September 27, 4:10-5:00pm
(free pizza and pop, as always)

Bidding games: theory and practice

Professor Sam Payne

Abstract

What if you play your favorite combinatorial game, such as nim, tic-tac-toe, or chess, but instead of alternating moves you bid each time for the right to move? The basic theory of such games is simple and elegant, with a surprising relation to "random" games, in which the right to move is determined by a coin flip. In practice, these bidding games are fun and disorienting. Even tic-tac-toe becomes a challenge.