

The SUMO Speaker Series for Undergraduates

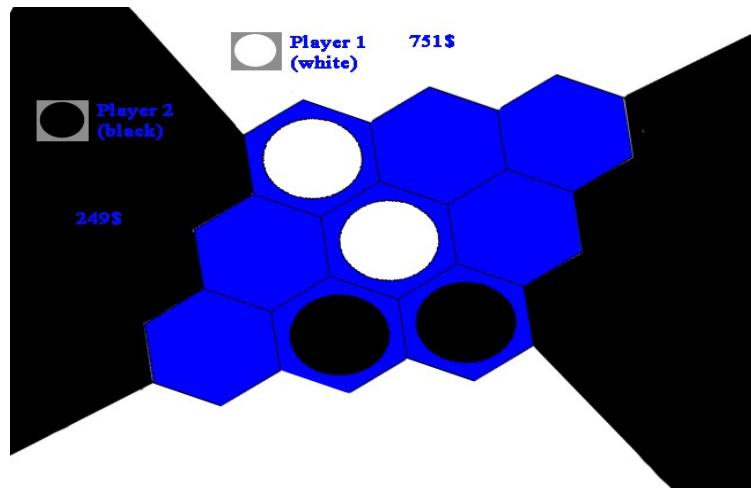
(Pizza Provided)

Wednesday, May 11th

4:15-5:05, room 380C

How to win Hex by bidding

Elina Robeva



ABSTRACT:

The game of Hex is played on a rhombus-shaped board consisting of hexagons. Two players alternate turns placing chips of their own color. Each player's goal is to connect opposite sides of the board of their own color with a path of chips of that color. A bidding game is a two-player game in which, instead of alternating moves, the players bid for the right to move. A real-time winning strategy for Hex does not exist, but there is one for Bidding Hex. We will discuss Bidding Hex in the general context of bidding games and see how one might implement a strategy for it.

A random turn game is a two-player game in which the players flip a coin to decide who moves next. Bidding games, and especially Bidding Hex, are essentially the same as random turn games. This is the key factor underlying an algorithm for Bidding Hex that defeats most human players.

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