Title:

A Combinatorial Characterization of Minimax in 0/1 Games

Abstract:

We will discuss a generalization of the celebrated Minimax Theorem (von Neumann, 1928) for binary zero-sum games.
A simple game which fails to satisfy Minimax is Ephraim Kishon's “Jewish Poker” (see link below). In this game, each player picks a number and the larger number wins. The payoff matrix in this game is *infinite triangular*.
We show this is the only obstruction: if a game does not contain triangular submatrices of unbounded sizes then the Minimax Theorem holds.
This generalizes von Neumann's Minimax Theorem by removing requirements of finiteness or compactness.

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