

1125-VC-1325 **Annala R Kelly*** (adamannika@cox.net), 10 Stanley Avenue, Barrington, RI 02806.

Multiplayer Fibonacci Nim. Preliminary report.

Multiplayer game analysis is widely used in computer games, business models, and conflict situations. This area of mathematics was developed by John Nash, Nobel Prize winner and the inspiration for the movie "A Beautiful Mind". My presentation analyzes multiplayer Fibonacci Nim game with collaboration among players that are selected before the play and mathematically determined the winning strategies. I investigate the multiplayer Fibonacci Nim with alliance system using n -by- n player preference matrix that was defined by Krawec. The talk will summarize the results for the Fibonacci Nim with standard alliance matrix. (Received September 16, 2016)