Department of Mathematics, Statistics and Computer Science
St. Francis Xavier University

presents

Tossing coins, and a random shooting game of Lampert and Slater

by
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In the American Mathematical Monthly in 1998, Lampert and Slater presented the following game: n players each have a gun: each round of the game, each remaining player randomly shoots one of the other players, knocking them out of the game. The game continues until there is either one player (the ``winner'') remaining, or there are no players left. They asked for the behaviour of the probability that a game starting with n players terminates in a win, and in particular, whether it tends to a limit.

Using analytic, combinatorial and computational methods, we analyze a simpler game, involving tossing coins, and use the insight we obtain to answer Lampert and Slater's original question.

This is joint work with E. Rodney Canfield and Herbert S. Wilf.

Coffee and Donuts will be served before the talk in AX24A