Department of Mathematics and Statistics Colloquium

Avoiding Patterns and Making the Best Choice

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Abstract: The game of best choice has been considered under various names since at least the 1950's and was widely popularized in a 1960 column of Martin Gardner. In one classical setup, a player conducts "interviews" with a fixed number of "candidates." After each interview, the player ranks the current candidate against all of the candidates that have previously been considered (without ties). The player must then decide whether to accept the current candidate and end the game or, alternatively, whether to reject the current candidate forever and continue playing in the hope of obtaining a better candidate in the future.

In this talk, we investigate variations where pattern-avoidance is used to restrict the interview orderings that can occur and describe strategies that maximize the chance of hiring the best candidate. There are lots of open problems here so if you are an undergraduate interested in doing some research you should definitely attend this talk! Also, I will discuss a paradigm for performing parallel computations with SAGE.

Monday, February 6 at 3:45 in Roop 103

refreshments at 3:30