## University of Colorado Department of Mathematics Problem of the Month April 2013

Let  $S_n$  be the group of permutations of the numbers 1, 2, ..., n. Two players play the following game: taking turns, they select elements one at a time from  $S_n$ . Players are forbidden to select elements that have already been selected. The game ends when the selected elements generate  $S_n$ . The player who made the last move loses the game. Which player has a winning strategy?