

\& GAMECOCK MATH CLUB

# Sudoku Championship Tuesday, February 1 ${ }^{\text {st }}, 2011$ 

## LeConte 101

## - 6:30pm - A talk "Playing Fair at Sudoku" by USC Professor Josh Cooper


#### Abstract

A Sudoku "puzzle" is a partially filled-out 9X9 board -- ostensibly, to be completed by the solver. Filled-in blocks are known as "givens". A puzzle would not be fair unless it satisfied two criteria: (1) there must be a solution, and (2) the solution must be unique. A puzzle designer therefore faces a challenge in making sure that his/her puzzles are fair. One reasonable question they might ask is, "What is the fewest number of givens in a fair puzzle?" Amazingly, this question is open! The best known bounds are 8 and 17 , i.e., there is a fair puzzle known (actually many) with 17 givens, and it is easy to see that any fair puzzle must have at least 6 givens. We talk about what is known about this question, and how a possible solution might look. Students interested in becoming involved with research will find many intriguing questions to think about.


- 7:30pm $-4^{\text {th }}$ Annual Sudoku Championship

Prizes for the Overall Winners!

## Door Prizes and Snacks, too!

For more information visit: http://www.math.sc.edu/~pme

