

Title: Lights Out and Linear Algebra

Speaker: Dr. David Leach, UWG Mathematics

Date: Wednesday, April 10, 2019

Time: 1:00 PM

Location: Boyd 305

Lights Out is a game played on a grid of light-up buttons. At the start of the game, the lights are lit in a seemingly random configuration. A button changes states whenever it or one of its neighbors is pressed. The goal is to turn all of the lights out.

In this talk we'll look at two strategies for solving the game: one will solve the game directly, the other will use a lookup table. Both strategies use linear algebra, and we will use the free, python-based Sage Mathematical Software System to do the arithmetic for us.

Everyone is invited.

If you can't wait for the talk, play the game now at <https://www.westga.edu/~cleach/lightsOut.html>.

Check out SageMath at <http://www.sagemath.org/>