
MELISSA HUGGAN, Mount Allison University

Efficiently locating an invisible adversary

The localization game is a variant of Cops and Robbers, where the robber is invisible, and the cops send distance probes in an attempt to identify the location of the robber. In this talk, we will explore the localization capture time which measures the time it takes the cops to locate an invisible robber assuming optimal play. We conjecture that the localization capture time is linear in the order of the graph and show that the conjecture holds for several graph families.

This is joint work with Natalie C. Behague, Anthony Bonato, Trent G. Marbach, and Brittany Pittman.