

GRADUATE SEMINAR

Brendan Andrusiak

Zero-Forcing, History and Applications

MSc Student supervised by Dr. Shaun Fallat

Oct. 31, 2022

3:30 – 4:30 pm

CL 305

and

Zoom Meeting ID: 941 2536 7372

University of Regina

Abstract:

Zero Forcing is defined as a dynamic graph-colouring process. At each discrete time step, a coloured vertex with a single non-coloured neighbour forces that neighbour to become colored. On the surface, zero-forcing seems like a simple graph colouring game. However, when we look closer, we see that it has many applications in different scientific areas including: mathematics, physics and computer science. In my talk, I will explore the history of zero-forcing, its applications and where the exploration of this topic has taken my research.