



# Math Club

presents

## Matthew Morin

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University of British Columbia

**Cosponsored by the Dean, Faculty of Science**

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## Distinguishing Graphs via Their Chromatic Symmetric Function

**Abstract:** Investigating proper colourings is one of many problems that is of interest in the area of graph theory. Any proper colouring necessarily obeys certain constraints that are imposed by the structure of the graph in question. The chromatic symmetric function of a graph, which was first introduced by Stanley, records information for each of these colourings. We look into the questions of: (1) What information about the graph can be recovered from its chromatic symmetric function? and (2) Are there certain families of graphs that can be completely recovered by their chromatic symmetric function? No prior knowledge of graph theory or generating functions is assumed, and all necessary definitions and terminology will be given.

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**Monday, March 16, 4pm, D225, Abbotsford**

All students, faculty and staff are invited to attend.