



Math Club

presents

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Cosponsored by the Dean, Faculty of Science

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Approximate counting and atmospheres

Abstract: Self-avoiding walks and polygons are canonical models of polymers in dilute solutions. These models can be used to study a wide range of phenomena such as polymer collapse and adsorption. Many questions about the physics of these models can be recast as counting problems and then approached using combinatorial techniques.

At the current time, most of these counting problems are either unsolved or have "solutions" that take exponential time and memory. In this talk I will discuss recent (and not so recent) techniques for providing approximate solutions to these problems. These techniques are all based on a simple statistic of the underlying objects called the atmosphere.

This is work together with Buks van Rensburg from York University.

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Monday, September 15, 4pm, D213, Abbotsford

All students, faculty and staff are invited to attend.