

Department of Mathematics and Statistics Colloquium

Arithmetical Structures on Graphs

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Abstract: In this talk, we will introduce the notion of an arithmetical structure on a finite connected graph. These structures were defined by Dino Lorenzini in order to answer some questions in algebraic geometry, but in this talk we will discuss how they can be described only in terms of elementary number theory and linear algebra. One goal is to count how many different structures one can place on a given graph. We will fully answer this question for some families of graphs, and discuss why it is a hard but interesting question for other families.

Monday, February 25 at 3:50 in Roop 103

Refreshments at 3:30