

University of Lethbridge
Department of
MATHEMATICS & COMPUTER SCIENCE

Speaker: **Seokhee Hong**

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Title: **Symmetric Graph Drawing: A Survey**

Room: **A 580**

Date: **Friday, February 6, 2004**

Time: **10:00 – 11:00 a.m.**

Abstract: Graph drawing is the construction of geometric representations of graphs in two or three dimensions. It has many applications such as information visualization, VLSI design, software visualization and bioinformatics. Symmetry is one of the most important aesthetic criteria in graph drawing. It clearly reveals the structure of an abstract graph. The problem of determining whether a graph can be drawn symmetrically is NP-complete in general. However, the problem can be solved in polynomial time for several restricted classes of graphs such as trees, outerplanar graphs and planar graphs. This talk briefly covers recent results in symmetric graph drawing including symmetry models, heuristics and exact algorithms for general graphs, and optimal algorithms for trees and planar graphs, both in two and three dimensions.