

STudent REsearch TalkS (StReTs)

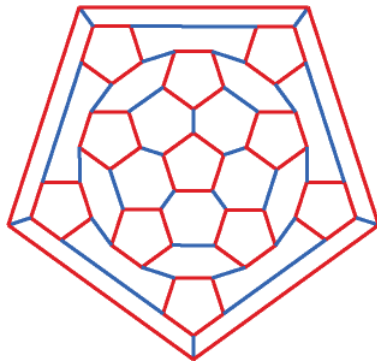
Mason Experimental Geometry Lab (MEGL)

Graphs and Geometry

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Abstract

In this talk we will define and give examples of Cayley graphs and discuss how they relate to various two and three dimensional geometries. Originally defined by John Cayley and then generalized by Max Dehn to study the word problem in groups, Cayley graphs were used and extensively studied in the 1960's 70's, and 80's by Thurston, Stallings, Cannon, Gromov, and others. Their work led to the development of what is today known as geometric group theory. In particular we will discuss how the Cayley graph of the fundamental group of a compact connected boundaryless two or three manifold relates to the geometry of its universal cover.

Date: Friday, 21 November, 2014

Time: 2:30pm–3:30pm

Place: Exploratory Hall, Room 4106

Pizza and soda will be served at the presentation.

For further information or for special accommodations, please contact Sean Lawton via email at seanlawton@gmail.com or drop by the MEGL.