"I have made an attempt to construct it like a Bruckner symphony, with crescendos and climaxes, little foretastes of pleasure to come, and abundant crossreferences."

— H. S. M. (Donald) Coxeter

The Trivial Notions Seminar

Proudly Announces

BCGRS - Baby Coxeter Groups and Root Systems

A talk by

Jerry Wang

Abstract

A Coxeter group is defined as an abstract group generated by elements of order 2 by specifying the orders of pairwise products. These groups play important roles in several branches of mathematics, such as group theory, the theory of polytopes, crystallography, graph theory, Lie groups, and the theory of buildings. J. Tits, who initiated the systematic study of such abstract groups, coined the name based on the pioneering work of Donald Coxeter.

(The above has been shamelessly copied from
http://www.ams.org/notices/200310/fea-coxeter.pdf)

We will start from the above definition and discuss some equivalent definitions of a Coxeter group. A vast source of examples of them arises from root systems which we will discuss in the second part of the talk. Apart from the aforementioned applications, we also found interesting uses of Coxeter groups in the decoration of our department.

Thursday April 21st, at 2:00 pm
Science Center 507