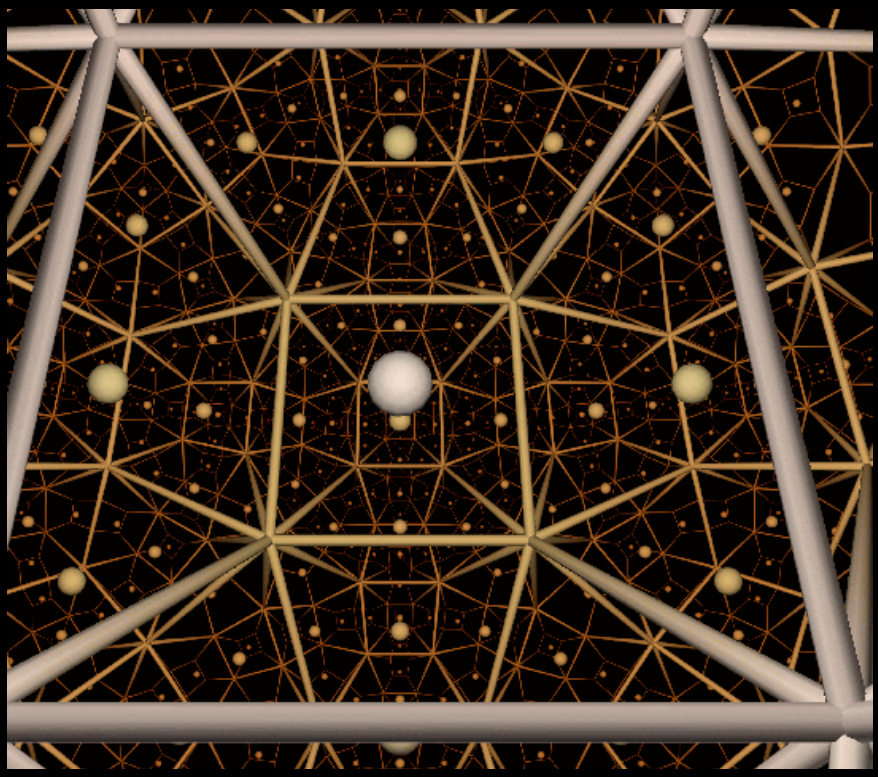
The University of Hawaii Department of Mathematics
presents:

The 2007 Distinguished Lecture Series

by: Martin R. Bridson of Imperial College London
February 21, 22 and 23, 2007

Public Keynote Lecture:

the language of symmetry and the geometry of space



Wednesay, February 21, 2007

3:30p Reception
Campus Center
Room 203E

4:30p Lecture
Crawford Hall
Room 105

Beauty all around us is connected with the presence or subtle absence/breaking of symmetry. *Groups* are the mathematical objects that afford a precise language in which to explore symmetry. I shall explain some elements of the modern theory of groups, relying heavily on visual examples. In this context, I shall address the fundamental question: How can one quantify complexity? How can one quantify the "hardness" of a problem, or the "subtlety of a space". I shall explain some of the mathematics associated to answering such question, focussing in particular on the problem of navigating in 2- and 3-dimensional spaces of varying geometry.

2nd Lecture:
Curvature, Complexity and the universe of finitely presented groups.
Thursday, February 22
3:00 Refreshments, Keller 403
4:30 Lecture, Keller 418

3rd Lecture:
Automorphism groups of free, free-abelian and surface groups, and actions on CAT(0).
Friday, February 23
3:00 Refreshments, Keller 403
4:30 Lecture, Keller 418