CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Tuesday, December 7
5:15 – 6:30 pm in NC 20101

HYPERBOLIC SPORTS
AND THE GEOMETRY OF
3-DIMENSIONAL SPACES

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Abstract

We will discuss hyperbolic geometry and some of its applications. Hyperbolic geometry was discovered in the early nineteenth century as the first example of a geometry where Euclid's parallel postulate failed. In modern times, it has been used as a way to understand the shapes of two and three dimensional spaces.

One way to understand a geometry is to think about what it would be like to live in a world with that geometry. We will discuss what it would be like to play various sports in a hyperbolic world.

Most two dimensional spaces can be given a geometry which is hyperbolic. Perelman has recently announced a proof of Thurston's Geometrization Conjecture which involves showing that most 3-dimensional spaces can also be made hyperbolic. If his proof turns out to be successful it will also solve one of the Clay Institute's Million Dollar problems.

Aftermath: Everyone is invited to join the presenter and the organizers to an informal dinner.

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