The Math/Stats Colloquium
Department of Mathematics and Statistics
San José State University

Dick Canary

U. Michigan (visiting MSRI)

Non-Euclidean sports and the geometry of surfaces

April 29, 2015, MH320

Abstract: Hyperbolic geometry was discovered in the 19th century. It was the first example of a non-Euclidean geometry, i.e., a geometry which satisfies all of Euclid's axioms except for the parallel postulate, and is the prototypical example of a negatively curved geometry.

In our talk, we will attempt to obtain a visceral understanding of hyperbolic geometry by exploring what it would be like to live in hyperbolic space. We will focus on what it would like to play various sports, for example, baseball, golf and beach ball, in hyperbolic space. If time permits, we will discuss the classification of surfaces and how surfaces with at least two holes can be given a hyperbolic geometry.

Background: No particular background necessary.

About the speaker: Dick Canary received his Ph.D. from Princeton University, and after two years at Stanford, has been at the University of Michigan since 1991. He studies the topology and geometry of surfaces and three-dimensional manifolds.

Snacks in MH331B at 2:30 pm
Talks start at 3 pm

For more information, see our full schedule at:

http://www.math.sjsu.edu/∼hsu/colloq/