

CALIFORNIA STATE UNIVERSITY, LONG BEACH

THE MATHEMATICS COLLOQUIUM

presents

Dr. Curtis Bennett

Loyola Marymount University

speaking on

An Escher Version of the Banach-Tarski Paradox

Friday, November 12, 2004

12:00PM-1:00PM

LA5-267

Abstract: This talk is the story of an illustration of the Banach-Tarski paradox using Escher's CircleLimit IV (Angels and Devils) as a backdrop. In the talk, we will discuss Escher's desire to represent infinity on the artist's canvass, and then use his presentation of infinity to present the Banach-Tarski paradox. The talk will discuss Escher and his discovery of hyperbolic space, leading to a discussion of how to visualize hyperbolic space using the Poincar disk model of hyperbolic space. In addition, we will give a brief history of the Banach-Tarski paradox and end with the construction on Escher's picture.