



PURDUE UNIVERSITY

Department of Mathematics Colloquium

Speaker: Professor Christopher Judge, Indiana University

Title: "The Music of Triangles"

Date: Tuesday, October 25, 2011

Time: 4:30 P.M.

Place: MATH 175

Abstract

The vibrational frequencies of a drum depend on the shape of its drumhead. What happens if the drumhead is triangular? Can we give a closed form expression for the frequencies? Is it possible that two different standing waves have the same frequency? I will discuss these questions for triangles both Euclidean and Non-Euclidean geometry. I will also describe the relation to the Phillips-Sarnak conjecture in the theory of automorphic forms. (Joint work with Luc Hillairet).

Refreshments will be served in the Math Library Lounge at 4:00 p.m.