Christopher M Judge* (cjudge@indiana.edu), IU Mathematics Dept, Rawles Hall, BLOOMINGTON, IN 47405, and Luc Hillairet (Luc.Hillairet@univ-nantes.fr), Laboratoire de mathématiques, 2 rue de la Houssinière BP, 92208 4432 Nantes Cedex 3, Pays de L., France.

The music of triangles.

Though, triangles are among the simplest geometric shapes, we know little about their vibrational frequencies. In this talk I will discuss the spectra of special triangles that tile the plane and ask what happens for a random triangle? For example, can frequencies overlap for the random triangle? Joint work with Luc Hillairet shows that no overlapping occurs. (Received September 13, 2011)