University of Florida
Mathematics Department
Eleventh Erdos Colloquium

by

Professor Akshay Venkatesh [*]
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on

Geometry of Numbers, Old and New

Date: Wednesday, March 11, 2009
Time: 5:10 - 6:00pm
Room: LIT 101

OPENING REMARKS
by
TBA

Abstract: The *geometry of numbers* is an old and beautiful method of solving equations in whole numbers using geometrical ideas. I shall discuss this method, illustrating with examples drawn from the theory of quadratic forms. I will then describe some modern descendants of the geometry of numbers; these draw on ideas from other mathematical fields including ergodic theory and harmonic analysis.

[*] ABOUT THE SPEAKER: Professor Akshay Venkatesh has made far reaching contributions to a wide variety of areas of mathematics including number theory, automorphic forms, representation theory, locally symmetric spaces, and ergodic theory, by himself and in collaboration with several mathematicians. He received his PhD in 2002 from Princeton under the direction of Professor Peter Sarnak. In his thesis he realized the first step of a program proposed by Langlands of counting automorphic forms by analytic methods. He was C. L. E. Moore Instructor at MIT (2002-04) after which he was a Clay Research Fellow. He was appointed Associate Professor at Courant Institute, NYU in 2004. In 2007 he was recognized with the Salem Prize and the Packard Fellowship. And now at the very young age of 27, he has been elevated to the rank of Full Professor at Stanford University. In December 2008 he was awarded the SASTRA Ramanujan Prize.

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