

**COLLOQUIUM
UNIVERSITY OF PITTSBURGH
FRIDAY, SEPTEMBER 13, 2013**

704 THACKERAY HALL

3:30 P.M.

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OHIO STATE UNIVERSITY

SIMPLICIAL VOLUME AND ITS APPLICATIONS

ABSTRACT: The simplicial volume of a closed manifold M is a non-negative real number $\|M\|$ (introduced by Gromov). I will explain various algebraic, topological, and geometric consequences of positivity of the simplicial volume. I will describe a general procedure, due to Gromov & Thurston, for showing that a manifold M has positive simplicial volume. This can be used to show that closed locally symmetric spaces of non-compact type has positive simplicial volume, confirming a conjecture of Gromov (this was joint work with B. Schmidt). Time permitting, I will also discuss some new applications of simplicial volume (work in progress with various collaborators).

**Refreshments served at 3:00 p.m.
in the Math Dept. COMMON ROOM, Thackeray 705**