Simplicial volume and its applications

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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 have 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).

The lecture will take place in Thackeray 704 at 3:30pm.
Refreshments will start at 3:00pm.