Introduction to simplicial volume

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007 Kemeny Hall, 4:00 pm

(Tea 3:30 pm 300 Kemeny Hall)

Abstract

Simplicial volume is an invariant of manifolds that measures how efficiently a manifold M can be "triangulated over the reals". Introduced by Gromov, this invariant yields a non-negative real number $||M|| \geq 0$. I will discuss various topological and geometric consequences of $||M|| > 0$ (all of which are due to Gromov). Finally, I will present Thurston's method for showing positivity of the simplicial volume, and provide a few examples of classes of manifolds with positive simplicial volume.

This talk should be accessible to graduate students.