

*Are almost flat manifolds boundaries?*

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A closed manifold is almost flat if it admits a sequence of metrics of diameter one, whose curvature tends to zero. This is a notion of Gromov who proved that any such manifold is finitely covered by a nilmanifold. It is conjectured that any such manifold is the boundary of a compact manifold. I will describe this and related conjectures and discuss the case of cyclic holonomy.