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**Benjamin Linowitz\*** (linowitz@umich.edu) and **Jeffrey S Meyer**. *Can an orbifold be isospectral to a manifold?*

An old problem asks whether a Riemannian manifold can be isospectral to a Riemannian orbifold with nontrivial singular set. We show that under the assumption of Schanuel's conjecture in transcendental number theory, this is impossible whenever the orbifold and manifold in question are length commensurable compact locally symmetric spaces of nonpositive curvature associated to simple Lie groups. (Received August 24, 2015)