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Jon Wolfson* (wolfson@math.msu.edu), Department of Mathematics, Michigan State University, Okemos, MI 48824. *Fill Radius and the Fundamental Group.*

In this talk we relate the geometric notion of fill radius with the fundamental group of the manifold. We prove: Suppose that a closed Riemannian manifold M satisfies the property that its universal cover has bounded fill radius. Then the fundamental group of M is virtually free. We explain the relevance of this theorem to some conjectures on positive isotropic curvature and 2-positive Ricci curvature. (Received September 09, 2010)