

1007-53-155

Yu Ding* (yuding@math.princeton.edu), 305 Fine Hall, Department of Mathematics, Princeton University, Princeton, NJ 08544. *Orbifolds and collapsing*. Preliminary report.

We study Riemannian orbifolds with bounded curvature that is sufficiently collapsed, in particular, the existence of a nilpotent Killing structure, similar to those defined on manifolds by Cheeger, Gromov and Fukaya. We also analyze the corresponding F-structure, with applications to certain gap phenomena as in the manifold case. (Received February 18, 2005)