## Geometry, Groups and Topology



Contribution ID: 4

Type: not specified

## Diameter growth and bounded topology of complete manifolds with nonnegative Ricci curvature

Wednesday, October 12, 2016 10:40 AM (30 minutes)

A manifold is said to be of finite topological type if it is homeomorphic to the interior of a compact manifold with boundary. In this talk, I will show that a complete *n*-dim Riemannian manifold with nonnegative Ricci curvature is of finite topological type provided that the diameter growth of M is of order  $o(r^{((n-1)\alpha+1)/n})$  and the sectional curvature is no less than  $-\frac{c}{r^{2\alpha}}$  (here  $0 \le \alpha \le 1$  and c is some positive constant) outside a geodesic ball large enough. This can be considered as a generalization of Abresch-Gromoll Theorem. This is based on a joint work with Yihu Yang.

Presenter: JIANG, Huihong (Shanghai Jiao Tong University)