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Karsten Grove* (kgrove2@nd.edu) and **Xiaoyang Chen**. *Rigidity Theorems for Submetries in Positive Curvature*.

We derive general structure and rigidity theorems for submetries f from a Riemannian manifold M with sectional curvature ≥ 1 . When applied to a non-trivial Riemannian submersion, it follows that the diameter of the base is at most $\pi/2$. In case of equality, there is a Riemannian submersion from a unit sphere, and as a consequence, f is known up to metric congruence. A similar rigidity theorem also holds in the general context of Riemannian foliations. (Received September 04, 2014)