



sphere theorem from global differential geometry

Canonical name	SphereTheoremFromGlobalDifferentialGeometry
Date of creation	2013-03-22 15:54:09
Last modified on	2013-03-22 15:54:09
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Last modified by	juanman (12619)
Numerical id	8
Author	juanman (12619)
Entry type	Theorem
Classification	msc 53C21
Classification	msc 53C20
Related topic	Curvature
Related topic	Connection

This theorem, as do Carmo refers it, is one of the most beautiful theorems in Riemannian geometry:

sphere theorem. *Let M be a n -dimensional compact simply connected Riemannian manifold, whose sectional curvature K satisfies*

$$0 < K_{\max}/4 < K \leq K_{\max}$$

Then M is homeomorphic to a sphere.

References

- [1] M. P. do Carmo, *Riemannian Geometry*, Birkhäuser, Boston, 1992.