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Poles of a complete Riemannian manifold

Definition. Poles of a complete Riemannian manifold

Let (M, g) be a complete Riemannian manifold. Then a point $p \in M$ is a **pole** if

$$\exp_p : T_p M \rightarrow M$$

is non-singular everywhere, or equivalently p has no conjugate points along any geodesic.

By

Let (M, g) be a connected Riemannian manifold and $p \in M$. If

$$\exp_p : T_p M \rightarrow M$$

is (well-defined and) a local diffeomorphism everywhere, then $\exp_p$ is a smooth covering map.

for each pole p ,

$$\exp_p : T_p M \rightarrow M$$

is a (universal) smooth covering.

Current note has 0 direct children and 0 total descendants.

- structures based on sets
 - manifolds
 - $\mathbb{R}$ -manifold semi-Riemannian
 - Complete Riemannian manifolds
 - Poles of a complete Riemannian manifold

And it has 14 siblings.

- structures based on sets
 - manifolds
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 - Complete Riemannian manifolds
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 - Riemannian homogeneous manifolds where $\exp_p$ is a diffeomorphism
 - Complete Riemannian manifolds without conjugate points