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Conjugate points in a semi-Riemannian manifold

Definition. Conjugate points in a semi-Riemannian manifold

Let (M, g) be a semi-Riemannian manifold and $\gamma : I \to M$ be a geodesic with $p = \gamma(a), q = \gamma(b)$ for $a, b \in I$ Then p, q are **conjugate along** γ if there is a non-zero Jacobi field J along γ with $J(a) = 0 = J(b)$.
The **order of conjugacy** is the dimension of space of such Jacobi fields.

> **Proposition:** Let (M, g) be a semi-Riemannian manifold, $p \in M$ and $v \in T_pM$ such that $\exp_p(v) =: q$ is defined. Then v is a critical point of $\exp_p \iff q$ is conjugate to p along the geodesic $\exp(tv)$.

Current note has 0 direct children and 0 total descendants.

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  - manifolds
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      - Conjugate points in a semi-Riemannian manifold

And it has 18 siblings.

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