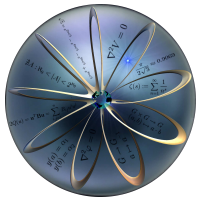

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self-intersections of a curve

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self-intersections of a curve

Let X be a topological manifold and $\gamma : [0,1] \to X$ a segment of a curve in X.

Then the curve is said to have a self-intersection in a point $p \in X$ if γ fails to be injective, i.e. if there exists $a, b \in (0,1)$, with $a \neq b$ such that $\gamma(a) = \gamma(b)$. Usually, the case when the curve is closed i.e. $\gamma(0) = \gamma(1)$, is not considered as a self-intersecting curve.