

## Differential Geometry in Computer Vision.

The study of manifolds combines many important areas of mathematics: it generalizes concepts such as curves and surfaces as well as ideas from algebra and topology. In English, "manifold" refers to spaces with a differentiable or topological structure, while "variety" refers to spaces with an algebraic structure, as in algebraic varieties. Bernhard Riemann extended Gauss's theory to higher-dimensional spaces called manifolds in a way that also allows distances and angles to be measured and the notion of curvature to be defined, again in a way that was intrinsic to the manifold and not dependent upon its embedding in higher-dimensional spaces. Albert Einstein used the theory of Riemannian manifolds to develop his general theory of relativity which is the geometric theory of gravitation published by Albert Einstein in 1915.

Here we are going to discuss about how can this theory be applied to Computer Vision.

About history of Differential Geometry in Albert Einstein's usage as how much is that important in Applied Science.