

**عنوان مقاله:**

Variations of arc length in Riemannian Finsler manifolds

**محل انتشار:**

نخستین کنگره بین المللی جامع ریاضی ایران (سال: 1395)

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**خلاصه مقاله:**

To use the method of differential forms to describe the first variation, there is another approach which uses vector fields and covariant differentiation. First, in the finsler manifold, we shown that a piece wise variation  $t$ - curve and  $U$ -curve to gether with the vector fields  $T$  and  $U$ . We defined geodesic is the base curve  $(\gamma)$ , in piece wise and to the describe second field satisfy the Jacobi equation. In order to study simple Imagine a family of geodesic rays emanating from the point  $x$ . variation There fore, we will show that these geodesic rays will appear to bunch together , If the flag curvature is positive at  $x$ . Then, these geodesic rays will appear to disperse , if the flag curvature is negative at  $x$ . Conversely, in order to prove these statements, we must first make precise the meaning by bunching together and dispersing . As a conclusion, Goedesic and exponential map will be discussed. Actually, there are many variations on .the theme we just described. Also, in this paper, we study of acobi fields and the Effect of curvature in sler manifolds

**کلمات کلیدی:**

Tangent space, Vector fields,  $u$ -curve,  $t$ -curve, chern connection, finsler geodesic, tangent vector, Jacobi fields, Variations

**لینک ثابت مقاله در پایگاه سیویلیکا:**

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