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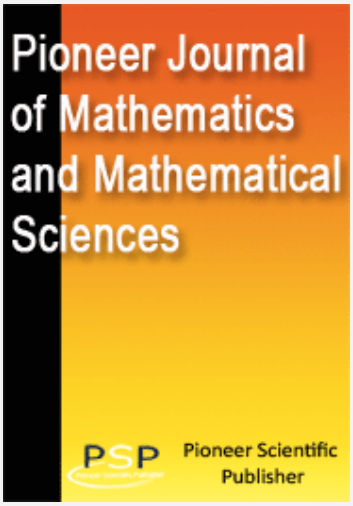

NULL GENERALIZED HELICES IN LORENTZIAN SPACE IN L^6

Esen Iyigün

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Abstract

In this paper; we study null generalized helices by describing in view of harmonic curvatures and curvature functions for a null curve in 6-dimensional Lorentzian space $\mathbf{L}^6$ by using the Frenet frame consisting of two null and four time-like vectors from [K. L. Duggal and A. Bejancu, Lightlike Submanifolds of Semi-Riemannian Manifolds and Applications, Kluwer Academic Publishers, Dordrecht, Boston, London, 1996]. Later, we give the characterization of a null helix of which all curvatures are constant in $\mathbf{L}^6$. Finally, we obtain some examples for a general helix and a null helix.

Keywords and phrases: Lorentzian space, null vector, time-like vector, harmonic curvature, null general helix.