

## DARBOUX VECTOR AND DARBOUX VERTEX IN $\mathbb{L}^3$

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## Abstract

In this study; we define Darboux vector and Darboux vertex at any point on a non-null curve of osculating order 3 in 3-dimensional Lorentzian space  $\mathbb{L}^3$ . First we give some important results on Darboux vector and Darboux vertex of this curve. Later, we find a relation between constant curvature ratio and harmonic curvature of this curve. Ultimately, we find that Darboux vertex is equal to the constant curvature ratio.

Keywords and phrases: 3-dimensional Lorentzian space  $\mathbb{L}^3$ , Darboux vector, Darboux vertex.

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