A Study on Rectifying Curves in Semi-Euclidean Spaces

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In this work, we get a characterization of rectifying curves in semi-Euclidean spaces. Considering the structure of the rectifying curves, we give some generalizations of such curves and characterize some properties of these curves in terms of their curvature functions.

Rerefences

- [1] Ahmad Tawfiq Ali and Mehmet Önder. Some characterizations of space-like rectifying curves in the Minkowski space-time. *Global Journal Science Front Result Mathematics Decision Science*. 12: 57-64, 2012.
- [2] Barrett O'Neill. Semi-Riemannian Geometry with Applications to Relativity. Academic Press, London, 1983.
- [3] Bang Yen Chen. When does the position vector of a space curve always lie in its rectifying plane?. The American Mathematical Monthly. 110: 147-152, 2003.
- [4] Bang Yen Chen and Franki Dillen. Rectifying curves as centrodes and extremal curves. Bulletin of the Institute of Mathematics Academia Sinica. 33: 77-90, 2005.
- [5] Kazım İlarslan and Emilija Nesovic. Some characterizations of null, pseudo null and partially null rectifying curves in Minkowski space-time. Taiwanese Journal of Mathematics. 12: 1035-1044, 2008.
- [6] Kazım İlarslan and Emilija Nesovic. Some characterizations of rectifying curves in the Euclidean space E^4 . Turkish Journal of Mathematics. 32: 21-30, 2008.
- [7] Kazım İlarslan, Emilija Nesovic and Miroslava Petrovic-Torgasev. Some characterizations of rectifying curves in the Minkowski 3- space. Novi Sad Journal of Mathematics. 33: 23-32, 2003.
- [8] Stijn Cambie, Wendy Goemans and Iris Van Den Bussche. Rectifying curves in n-dimensional Euclidean space. Turkish Journal of Mathematics. 40: 210-223, 2016.
- [9] Tunahan Turhan. On Rectifying Curves and Their Characterizations in Lorentz n-Space. Preprint. 2016.