

Geodesics on the Tangent Sphere Bundle of a Pseudo Hyperbolic 3-Space

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Abstract. In this paper, geodesics on a pseudo hyperbolic 3-space H_1^3 have been considered. Then, the Sasaki semi-Riemann metric on the tangent sphere bundle with radius ε , $T_\varepsilon H_1^3$ of H_1^3 has been obtained and non-null geodesics on $T_\varepsilon H_1^3$ are classified into horizontal, vertical and oblique type. Moreover, the geodesics of oblique type have been classified with respect to the principle curvatures of projected curve on H_1^3 of the geodesics on $T_\varepsilon H_1^3$

Keywords. Tangent Sphere Bundle, Sasaki Semi Riemann Metric, Geodesics.

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