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Horizontal lifts on the tangent bundle

In this study, the components of the Levi-Civita connection $\widetilde{\nabla}$ were computed by using the Sasaki metric $g^S = g^V + g^H$ on the manifold TM. From these components, the horizontal lifts of differential objects on the manifold TM were obtained, and then the VH, CH, HH lifts of differential objects on manifold M were given.

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On the taxicab sine and cosine functions

The Taxicab Plane consists of points, lines and angles in Euclidean Plane. In this plane, for points $X = (x_1, y_1)$ and $Y = (x_2, y_2)$, the distance is measured by taxicab metric, $d_T(X, Y) = |x_1 - x_2| + |y_1 - y_2|$. In this study, we develop cosine and sine functions in the taxicab plane by using the reference angle. Also, we give geometrical properties obtained by using these functions.

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Some collineations of a certain class of Moufang Klingenberg planes

In this paper, some collineations of Moufang–Klingenberg planes coordinatized by the altenative ring $\mathcal{A} = A + A\varepsilon(\varepsilon^2 = 0)$ which is called the ring of dual numbers constructed on an alternative ring A are introduced. These collineations are necessary for showing 4-transitivitiy of the collineation group of the MK-plane.