

On matrices and vector field in Minkowski 3-space

TUNAHAN TURHAN¹, VILDAN ÖZDEMİR², NİHAT AYYILDIZ³

¹ Seydişehir Vocational School, Necmettin Erbakan University, Konya, Turkey

² Department of Mathematics, Faculty of Science, Selçuk University, Konya, Turkey

³ Department of Mathematics, Faculty of Science, Süleyman Demirel University, Isparta, Turkey
tturhan@konya.edu.tr, vildanbacak@selcuk.edu.tr, nihatayyildiz@sdu.edu.tr

In this work, we give three different forms for matrix A depending on the causal characters of the vector x by analyzing the non-zero solutions of the equation $A(x) = 0$, $x \in \mathbb{E}_1^3$, in Minkowski 3-space, where A is the skew-symmetric matrix corresponding to the linear map \mathbf{A} . Also, we give some theorems and classifications about integral curves of a linear vector field in Minkowski 3-space.

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