

## **PROPER AFFINE VECTOR FIELDS IN PLANE SYMMETRIC STATIC SPACE-TIMES**

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**ABSTRACT.** A study of proper affine vector fields in plane symmetric static space-times by using the rank of the  $6 \times 6$  Riemann matrix and holonomy. Studying proper affine vector fields in each case, It is shown that the special class of the above space-times admit proper affine vector fields.

**Key words:** affine vector fields, static space-times, Riemann matrix, covariant constant vector.