

In this paper, symmetries of the canonical geodesic equations of indecomposable nilpotent Lie groups of dimension five are constructed. For each case, the associated system of geodesics is provided. In addition, a basis for the associated Lie algebra of symmetries as well as the corresponding non-zero Lie brackets are listed and classified. This is a joint work with Ryad Ghanam and Gerard Thompson.

Keywords: Lie symmetry; Lie group; canonical connection; geodesic equation