

Year: 2008

Vol.: 72

Fasc.: 3-4

Title: Fixed points of isometries of a Finsler space

Author(s): Shaoqiang Deng

In this paper, we study the zero points of Killing vector fields of a Finsler space. It turns out that Kobayashi's result on Killing vector fields of a Riemannian manifold can be generalized to the Finslerian case. In particular, any connected component of the set of zero points of a Killing vector field in a Finsler space is a totally geodesic closed submanifold and the Euler number of the manifold is the sum of the Euler numbers of the connected components provided the manifold is compact. Some interesting corollaries are also given.

Address:

Shaoqiang Deng
School of Mathematical Sciences and LPMC
Nankai University,
Tianjin 300071
P. R. China
E-mail: dengsq@nankai.edu.cn