

Groups of Conformal Transformations on Locally Conformal Kähler Manifolds and Groups of Homothetic Motions on Kähler Manifolds

Yevhen Cherevco

Department of Economic Cybernetics
Odessa National Economics University, Ukraine
cherevko@usa.com

ABSTRACT

We studied infinitesimal conformal transformations which do not change a complex structure of locally conformal Kähler manifolds. We have found expression for a Lie derivative of a Lee form respect to a covariant almost analytic field for locally conformal Kähler manifolds. Also we explore links between a group of conformal transformations on a locally conformal Kähler manifold and a group of homothetic motions on a Kähler manifold.