CANONICAL FOLIATIONS OF ALMOST F-COSYMPLECTIC STRUCTURES

Hong Kyung Pak
Faculty of Information Science
Kyungsan University
Kyungsan 712-240, Korea
hkpak@ kyungsan.ac.kr

Abstract

The present paper mainly treats with almost f-cosymplectic manifolds. This notion is related to the locally conformal geometry of almost cosymplectic man-ifolds. Almost cosymplectic manifolds and almost Kenmotsu manifolds are examples of almost f-cosymplectic manifolds. The present paper studies the canonical foliation defined by the contact distribution of an almost f-cosymplectic manifold M. Further-more, we verify that a semi-invariant submanifold N of such a manifold M admits a canonical foliation FN defined by the anti-invariant distribution and a canonical cohomology class generated by a transversal volume form for FN . Finally, we con-sider the problem when FN is Riemannian. Related to this problem, we compute the Godbillon-Vey class for FN.