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ON M-PROJECTIVE CURVATURE TENSOR OF PARA-KENMOTSU MANIFOLDS ADMITTING ZAMKOVOY CONNECTION

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Abstract: In this paper, relation between curvature tensors of Levi-Civita connection and Zamkovoy connection on para-Kenmotsu manifolds have been obtained.Quasi M-projectively flat, M-projectively flat and ϕ-M-projectively flat para-Kenmotsu manifolds admitting Zamkovoy connection have been studied. Also, para-Kenmotsu manifolds admitting Zamkovoy connction satisfying $\bar{M}(\xi, U).\bar{R} = 0$ and $\bar{M}(\xi, U).\bar{S} = 0$ have been developed.

Keywords and Phrases: Para-Kenmotsu manifold, M-projective curvature tensor, Zamkovoy connection, Quasi M-projectively flat, $\phi-$ M-projectively flat, Bianchi's identity.

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1. Introduction

In 2008, the notion of Zamkovoy connection was introduced by S. Zamkovoy [21] for paracontact manifold. Also this is known as canonical paracontact connection whose torsion is the obstruction of paracontact manifold to be para-Sasakian