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α-SASAKIAN MANIFOLD ADMITTING η-EINSTEIN SOLITON WITH A METRIC CONNECTION

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Abstract. The purpose of the present paper is to study some properties of α -Sasakian manifolds with respect to a metric connection. We study η-Einstein soliton on $\mathcal{W}_i^*$-flat α-Sasakian manifold, where $\mathcal{W}_i^*$ is the $\mathcal{W}_i$-curvature tensor with respect to the metric connection. Further, we investigate η-Einstein soliton on this manifold under various curvature conditions.

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