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Lovejoy S Das* (ldas@kent.edu), 330 University Dr. NE, University Dr., New Philadelphia, OH 44663. *Second Order Parallel Tensors on Lorentzian Para r-Sasakian Manifolds with a coefficient alpha.*

Abstract: Levy [5] had proved that a second order symmetric non singular tensor on a space of constant curvature is a constant multiple of the metric tensor. Sharma [6] has proved that a second order parallel tensor in a Kaehler Space of constant holomorphic sectional curvature is a linear combination with constant coefficients of the Kaehlerian metric and the fundamental 2-form. In this paper, we have shown that a second order symmetric parallel tensor on a Lorentzian Para r-Sasakian manifold (briefly LP-r Sasakian manifold) with a coefficient alpha is a constant multiple of the metric tensor and we have also proved that there is no non zero skew symmetric second order parallel tensor on a Lorentzian Para r-Sasakian manifold with a coefficient alpha. (Received April 19, 2014)