Metrics on the Cotangent Bundle of a Weyl Manifold Cornelia-Livia Bejan, Ilhan Gul

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Let M be a manifold endowed with a symmetric linear connection ∇ . Then on the cotangent bundle T^*M , Patterson -Walker introduced the Riemann extension, which is a semi-Riemannian metric of neutral signature. Later on, several generalizations of the Riemann extension were given. We also construct here such a generalization and study the geometric objects related to it, with respect to a Weyl connection on the manifold M.