G-Structures defined on pseudo-Riemannian manifolds

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Abstract

Concepts and techniques from the theory of G-structures of higher order are applied to the study of certain structures (volume forms, conformal structures, linear connections and projective structures) defined on a pseudo-Riemannian manifold. Several relationships between the structures involved have been investigated. The operations allowed on G-structures, such as intersection, inclusion, reduction, extension and prolongation, were used for it.