

An AP-Structure with Finslerian Flavor II: Torsion, Curvature and Other Objects

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Abstract

An absolute parallelism (AP-) space having Finslerian properties is called FAP-space. This FAP-structure is more wider than both conventional AP and Finsler structures. In the present work, more geometric objects as curvature and torsion tensors are derived in the context of this structure. Also second order tensors, usually needed for physical applications, are derived and studied. Furthermore, the anti-curvature and the W-tensor are defined for the FAP-structure. Relations between Riemannian, AP, Finsler and FAP structures are given. These relations facilitate comparison between results of applications carried out in the framework of these structures. We hope that the use of the FAP-structure, in applications may throw some light on some of the problems facing geometric field theories.

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