



On invariants of almost symplectic connections

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We study the irreducible decomposition under $Sp(2n, \mathbb{R})$ of the space of torsion tensors of almost symplectic connections. Then a description of all symplectic quadratic invariants of torsion-like tensors is given. When applied to a manifold M with an almost symplectic structure, these instruments give preliminary insight for finding a preferred linear almost symplectic connection on M . We rediscover Ph. Tondeur's Theorem on almost symplectic connections. Properties of torsion of the vectorial kind are deduced.

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