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Title: *How the curvature generates the holonomy of a connection in an arbitrary fibre bundle*

Abstract: There will be introduced the holonomy algebra bundle (the fibres of which are the Lie algebras of the holonomy groups with respect to different base points) together with a canonical connection, and there will be presented a unified definition of curvature as a 2-form on the base manifold with values in this bundle, which in the situation of vector bundles and principal fibre bundles is equivalent to the usual curvature definition. In this general situation the Theorem of Ambrose-Singer and the (Second) Bianchi identity are proved.