

A Weitzenböck formula on Sasakian holomorphic bundles

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Abstract

We deduce sufficient conditions for the smoothness of the Moduli space of self-dual contact instantons on a Sasakian 7-manifolds using Bochner-Weitzenböck type methods. The Weitzenböck formula on $(2,0)$ -forms incorporate the curvature of the base manifold and the curvature of the bundle, we deduce that for $SU(n)$ -Sasakian bundles, the transverse Ricci curvature suffices the smoothness of the Moduli space of SDCI, besides its dimension is given by the transversal index of a basic complex.