

Nadj, D. F.

The Bianchi identities and curvature tensors of Otsuki spaces. (English) [Zbl 0793.53018](#)

Szenthe, J. (ed.) et al., Differential geometry and its applications. Proceedings of a colloquium, held in Eger, Hungary, August 20-25, 1989, organized by the János Bolyai Mathematical Society. Amsterdam: North-Holland Publishing Company. Colloq. Math. Soc. János Bolyai. 56, 547-554 (1992).

An Otsuki space O_n means in this paper a manifold equipped with two different affine connections $'\Gamma$ and $''\Gamma$ and a tensor P_j^i , and then the covariant differential of tensors, e.g. of X_j^i is defined as

$$DX_j^i := P_a^i P_j^b (\partial_k X_b^a + '\Gamma_s^a{}_k X_b^s - ''\Gamma_n^s{}_k X_s^a) dx^k$$

[see *T. Otsuki*, Math. J. Okayama Univ. 9, 99-164 (1960; [Zbl 0202.211](#)) and *A. Moór*, Acta Sci. Math. 40, 129-142 (1978; [Zbl 0362.53006](#))]. A $W - O_n$ is an O_n endowed with a Weyl metric [*A. Moór*, Acta Sci. Math. 41, 173-185 (1979; [Zbl 0362.53007](#))]. In this paper several symmetries of the curvature tensors of these spaces are proved, and some Bianchi identities are calculated.

For the entire collection see [[Zbl 0764.00002](#)].

Reviewer: [L. Tamássy \(Debrecen\)](#)

MSC:

[53B15](#) Other connections

Keywords:

[affine connections](#); [Weyl metric](#)