Homogeneous Einstein manifolds of low dimension

Yurii G. Nikonorov, Eugene D. Rodionov

It is well known that any Einstein manifold M^n of dimensions 2 or 3 is isometric to the space of constant sectional curvature. In the case $n = 4$, G.Jensen proved that all 4-dimensional homogeneous Einstein manifolds are symmetric spaces [1]. In the dimension $n = 5$ the complete classification of compact homogeneous Einstein manifolds was given in [2], [3]. D.V. Alekseevsky classified homogeneous Einstein 5-manifolds with negative sectional curvature [4]. The main purpose of this paper is to discuss 6-dimensional and 7-dimensional cases.

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References

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