

On Clifford-Klein forms

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ABSTRACT

Clifford-Klein forms are of significant interest to the relativity theory, since they may yield compactifications of homogeneous pseudo-Riemannian manifolds. However, the problem of their existence is far from being solved. Moreover, there is a general conjecture that they always have a special form (in the literature, the latter is called the Kobayashi Conjecture). We contribute to this conjecture showing that a large class of homogeneous spaces does not admit solvable Clifford-Klein forms. The latter generalizes a theorem of Benoist that there are no non-virtually abelian nilpotent Clifford-Klein forms (see [1] and references therein).

References

- [1] M. Bocheński, A. Tralle, *Clifford-Klein forms and a-hyperbolic rank*, Internat. Math. Res. Notices IMRN, no. 15(2015), 6267-6285