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Examples of globally hypoelliptic operator on special dimensional spheres without infinitesimal transitivity. (English) [Zbl 1034.35015](#)

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Summary: This paper gives examples of globally hypoelliptic operator on S^3 , or on S^7 , or on S^{15} which is sum of squares of real vector fields. These operators fail to satisfy the infinitesimal transitivity condition (the Hörmander bracket condition) at every point and therefore they are not hypoelliptic in any subdomain.

MSC:

35H10 Hypoelliptic equations

Keywords:

Omori-Kobayashi conjecture; infinitesimal transitivity condition; Hörmander bracket condition

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References:

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