

Robinson, J.; Zund, J. D.

A theorem on geodesic mappings. (English) Zbl 0164.22103
Tensor, New Ser. 19, 300-302 (1968).

This paper proves that there does not exist a non-trivial geodesic mapping

$$\Gamma_{ij}^h \rightarrow \hat{\Gamma}_{ij}^h = \Gamma_{ij}^h + \delta_i^h \psi_j + \delta_j^h \psi_i, \quad \psi_i \neq 0$$

which takes a Riemannian V_n ($n > 2$) onto a \tilde{V}_n , which is recurrent, but is not of constant curvature. Thus the celebrated Beltrami theorem of classical differential geometry does not admit nontrivial generalizations. The paper corrects and extends a previous result of *N. S. Sinyukov* [Dokl. Akad. Nauk SSSR, n. Ser. 98, 21–23 (1954; [Zbl 0056.15301](#))].

Reviewer: [J. Robinson](#)

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MSC:

[53-XX](#) Differential geometry

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