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**A characterization of sheaf-trivial, proper maps with cohomologically locally connected images. (English summary)**

*Topology Appl.* **60** (1994), *no. 1*, 75–85.

Let  $f: X \rightarrow Y$  be a proper, surjective mapping whose Leray sheaves  $\mathcal{H}^q[f]$  are locally trivial, where  $X, Y$  are locally compact metric spaces. Basically this paper establishes that any two of the following statements imply the third: (1)  $Y$  is cohomologically locally connected; (2) the stalk of  $\mathcal{H}^q[f]$  is finitely generated for all  $q$ ; (3)  $f$  is cohomologically locally connected (i.e., for each  $y \in Y$  and neighborhood  $U$  of  $y$ , there exists a neighborhood  $V \subset U$  of  $y$  such that the image of the inclusion-induced homomorphism  $H^q(U) \rightarrow H^q(V)$  is finitely generated). Based on spectral sequence analysis, this expands earlier work of J. Dydak and J. J. Walsh [*Proc. Amer. Math. Soc.* **107** (1989), no. 4, 1095–1105; [MR0991693 \(90e:55012\)](#)] providing a sufficient condition for the local cohomological connectivity of  $X$  to be preserved by such a map  $f$ .

Reviewed by [R. J. Daverman](#)

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