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ISOMORPHISM OF PRODUCTS OF WEAKLY HOMOGENEOUS SPACES

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There exists a metric space X with the following properties:
(i) for every $x,y \in X$ there are open neighbourhoods U, V, $x \in U$, $y \in V$, and a homeomorphism h of U onto V such that $h(x)=y$ (i.e. X is weakly homogeneous),
(ii) X is isometric to X^3,
(iii) X is not homeomorphic to X^2.

This result (as a special case of a representation theorem) will appear in this journal under the title "Representations of countable commutative semigroups by products of weakly homogeneous spaces".