Fečkan, Michal
Invariant curves from symmetry. (English) Zbl 0783.58065
Math. Bohem. 118, No. 2, 171-174 (1993).

A very nice result is proved in this short paper. Suppose $m \geq 2$ and $F : \mathbb{R}^m \to \mathbb{R}^m$ is a continuous map. If there are two points in $\mathbb{R}^m$ such that one of them is moved closer to the origin by F while the other is moved farther away and if the map F is equivariant under the action of a compact subgroup of the orthogonal group that is transitive on the unit sphere, then F has an invariant curve such that the action of F on this invariant curve is equivalent to a rotation.

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