Weakly ϕ-invariant real hypersurfaces of dimension three

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Abstract. In this paper, it is proved that a real hypersurface of dimension three in a nonflat complex space form is weakly ϕ-invariant if and only if it is locally congruent to a type (A) hypersurface, or a ruled hypersurface or a type of strongly 2-Hopf hypersurfaces whose local structures are determined completely by a system of ordinary differential equations.

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