

A characterization of CR quadrics with a symmetry property

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We study CR quadrics satisfying a symmetry property (\tilde{S}) which is slightly weaker than the symmetry property (S) , recently introduced by W. Kaup, which requires the existence of an automorphism reversing the gradation of the Lie algebra of infinitesimal automorphisms of the quadric.

We characterize quadrics satisfying the (\tilde{S}) property in terms of their Levi-Tanaka algebras. In many cases the (\tilde{S}) property implies the (S) property; this holds in particular for compact quadrics. We also answer to a question by V. Ezhov and G. Schmalz about the dimension of the algebra of positive-degree infinitesimal automorphisms of CR quadrics.

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